









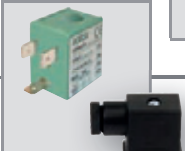


# ASCO NUMATICS™ EXPRESS



# VALVES - SOLENOID VALVES

## PNEUMATIC COMPONENTS

<b>Motorised/Pressure operated valves</b>		<b>4</b>
<b>Solenoid valves 2/2 - 3/2</b>		<b>9-23</b>
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# Products

ASCO Numatics Express is available for an ever-expanding range of products that covers up to 90% of all applications. If you have any requests for products that you would like to see included in the Express service in the future, please contact your local customer service representative or distributor.

## ASCO Numatics Express Product Categories

### Solenoid Valves

#### Direct Operated:

- 2/2
- 3/2

Available from 1/8" – 1"

Available for EN161 Gas, Steam, Vacuum, Cryogenic and Oxygen Service Applications

Full Range of ATEX Options

#### Pilot Operated:

- 2/2
- 3/2
- 4/2
- 5/2

Available from 1/4" – 2"



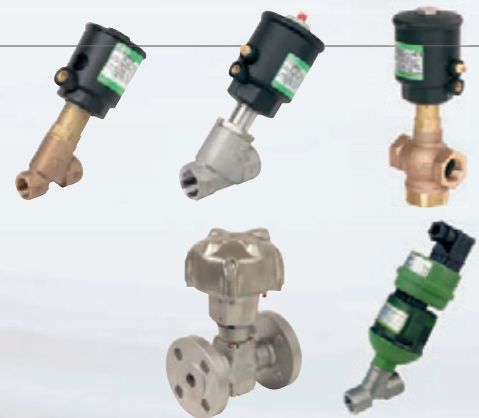
### Globe and Angle Seat Valves

- On/off
- 2/2
- 3/2

- Motorised
- Proportional
- Pressure Operated

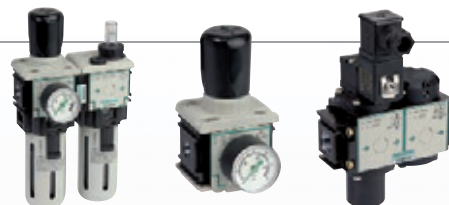
Available from 3/8" – 2 1/2"

Internal threaded port, clamp connection, butt welding ends and Flanged PN16 available.



## Air Treatment

- Filter Regulators/Lubricators/FRLs
  - Isolation Valves
  - Shut-off Valves
  - Soft-start Units
  - By-pass modules
- Available from ¼” – 1 ½”



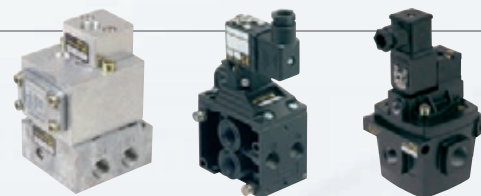
## Spool, Manual and Micro Valves

- Manual: Lever, Button or roller operated – ¼”
  - Electrical: Solenoid operated
  - 3/2 – 5/2
  - Tapped and Namur
  - ATEX versions; Ex m, EX d, EX ia, Ex E mb
  - Panel mounting diam 22mm
- Available from ¼” – 4” (ISO Valves)



## Poppet Valves

- 3/2
  - 4/2
  - Air Operated
  - Solenoid Air Operated
- Available from 1/8” – 1”



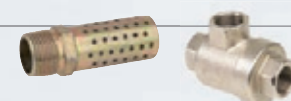
## Proportional Technology

- Pressure Control
- From vacuum up to +50 bar
- Available from G1/8 – G1
- DN4 – DN20
- Direct operated
- Software parameter setting options

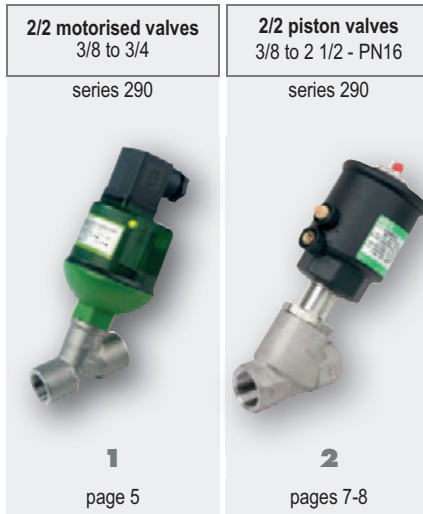


## Accessories

- Flow regulators
- Exhaust regulators
- Silencers
- Shuttle valves
- Quick exhaust valves
- Electronic timers



# MOTORISED & PRESSURE OPERATED VALVES



## YOUR SELECTION

pipe size										clamp connection			PN16 flanges		fluids			max. operating pressure differential bar	material		visual	series	page
G										DN 15	DN 25	DN 40	DN 25	DN 50	air, inert gas, aggressive fluids	water, oil, aggressive liquids	steam		bronze	stainless steel			
3/8	1/2	3/4	1	1 1/4	1 1/2	2	2 1/2																
<b>2/2 - entry under the disc - motorised valve</b>																							
●	●	●														●	●	-	4 to 6	●	<b>1</b>	290	5
<b>2/2 NC - entry under the disc</b>																							
●																●	●	< 184°C	16	●	<b>2</b>	290	7
	●															●	●	< 184°C	16	●			
		●														●	●	< 184°C	16	●			
			●													●	●	< 184°C	10	●			
				●												●	●	< 184°C	12	●			
					●											●	●	< 184°C	8	●			
						●										●	●	< 184°C	10	●			
							●									●	●	< 184°C	6	●			
<b>2/2 NC - entry above the disc</b>																							
●																●		< 184°C	10	●	<b>2</b>	290	7
	●	●	●													●		< 184°C					
		●	●	●												●		< 184°C					
			●	●												●		< 184°C					
<b>2/2 NO - entry under the disc</b>																							
●																●	●	< 184°C	16	●	<b>2</b>	290	8
	●	●	●													●	●	< 184°C					
						●										●	●	< 184°C					

# 2/2 MOTORISED VALVES

## 290 series

stainless steel body G 3/8 to G 3/4



Fluids	air and gas groups 1 & 2, water, oil, liquids groups 1 & 2
Differential pressure	refer to selection table
Power consumption	12 W mean, 0 W hold Max. pic current: 0,7 A
Fluid temperature	-10°C to +90°C
Ambient temperature	-10°C to +50°C
Body	stainless steel, AISI 316L (operator Ø67)
Disc / stuffing box seal	NBR
Standard voltages DC (-)	24V ±10 %, max. ripple 5%
AC (-)	110V to 250V / 50-60 Hz <sup>(1)</sup>

- High flow due to angled seat design
- Anti-waterhammer design (fluid entry under the disc)
- Actuator rotatable through 360°
- Maintained valve position in case of power failure
- Fluid isolation between electrical actuator and valve body
- LED visualisation through 360° (state of the valve)

<sup>(1)</sup> 24 V to 48 V AC /50-60 Hz, contact us.

### YOUR SELECTION

#### 15-DIGIT PRODUCT CODE

**E 290 C 5 - V 0 K A00 - -**

#### Pipe thread

E = ISO 228/1 & ISO 7/1 (combination thread)

#### Product series

290

#### DN

Differential pressure  
 2 = DN 10 (G3/8) 0 to 6 bar  
 3 = DN 15 (G1/2) 0 to 5 bar  
 4 = DN 20 (G3/4) 0 to 4 bar

#### Electrical operator dia.

V = Ø 67 mm

#### Voltage

V1 = 24 V DC - class B

VW = 110 V...250 V 50/60 Hz - class B

### OPTIONS AND ACCESSORIES

AC to DC adapter

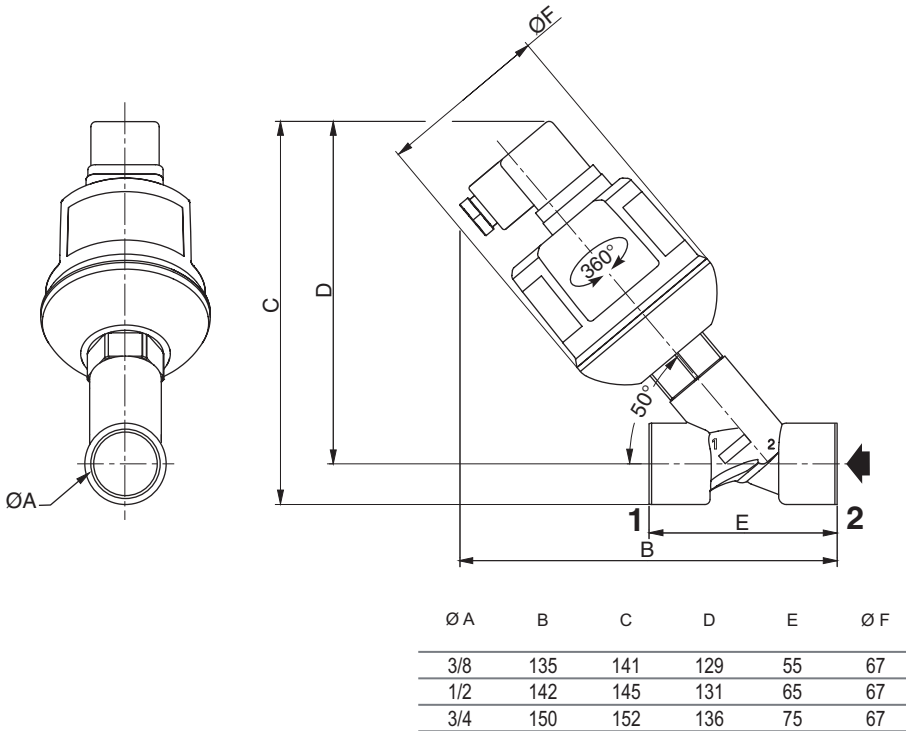
110V to 250V/50-60 Hz: **P290CA430078001**



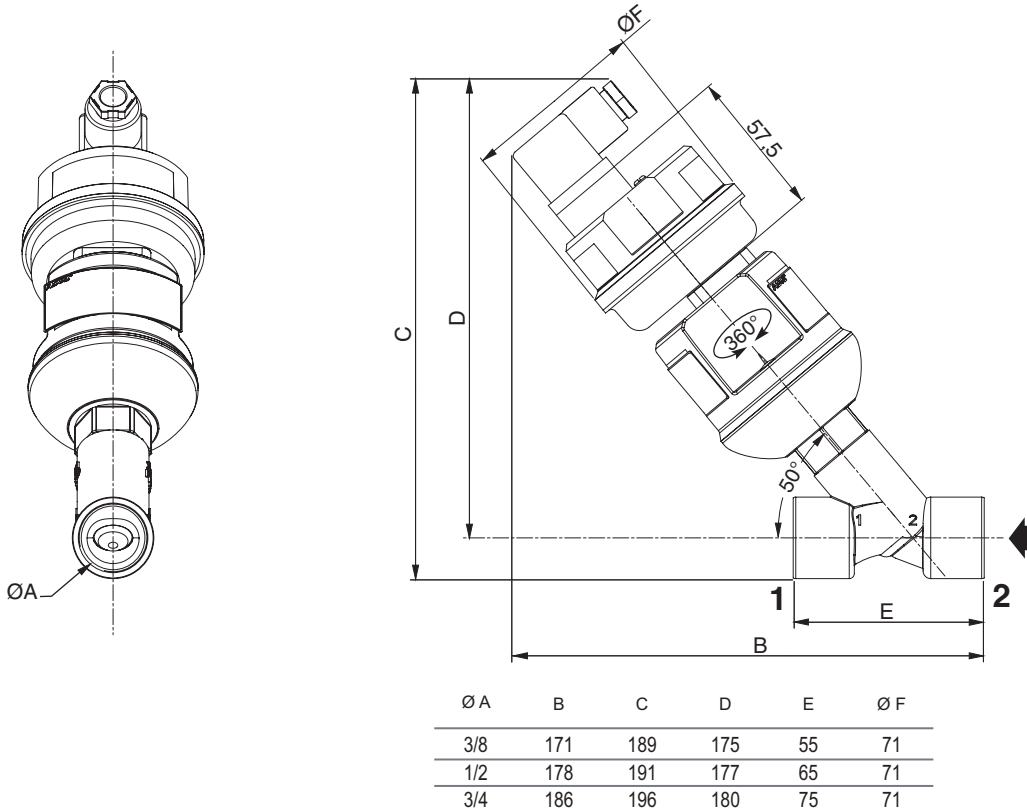
# 2/2 MOTORISED VALVES

## DIMENSIONS

### DC version



### AC version



**2/2 VALVES**  
**290 series**  
**PRESSURE OPERATED**  
 piston-type  
 on/off  
 bronze body G 1/2 to G 2 1/2  
 stainless steel body G 3/8 to G 2 1/2



Fluids	air, inert gas, water, oil (<600cSt) superheated water, steam, aggressive fluids
Differential pressure	refer to selection table
Pilot pressure	refer to selection table
Allowable vacuum	10 <sup>-2</sup> mbar
Fluid temperature	-10°C to +184°C
Ambient temperature	-10°C to +60°C (0°C to +60°C for proportional ones)
Body	stainless steel, AISI 316L (operator Ø32) bronze or stainless steel 316L (other operators)
Disc / stuffing box seal	PTFE

- Long service life without maintenance, up to 10 times more than a ball valve
- Anti-waterhammer design
- 30 to 50% less air consumption compared to a quarter-turn actuator
- Valve technology combining compact dimensions with high flow rates
- Proportional range with profiled disc equipped with a precise position controller

**YOUR SELECTION (2/2 VALVES)**

pipe size	orifice size	flow coefficient Kv m <sup>3</sup> /h	pilot pressure bar		max. operating pressure differential bar			operator dia. mm	code		pilot valve series	
					min.	max.			bronze	stainless steel		
						air, inert gas, aggressive fluids	water, oil, liquids, aggressive liquids					steam ≤ 184°C
G	mm		min.	max.								
<b>2/2 NC - entry under the disc</b>												
3/8	10	2,8	4	10	0	16	16	10	32	-	E290A791	
		4,1	4	10	0	12	12	10	32	-	E290A792	
1/2	15	4,9	4	10	0	16	16	10	50	E290A384	E290A393	
		2,5	10	0	0	16	16	10	63	E290B002	E290B045	
		6,5	4	10	0	6	6	6	32	-	E290A793	
3/4	20	9,4	4	10	0	10	10	10	50	E290A385	E290A394	189/356
		2,5	10	0	0	12	12	10	63	E290B004	E290B047	
		12,8	4	10	0	6	6	6	50	E290A386	E290A395	
		4	10	0	0	10	10	10	63	E290B010	E290B053	
1	25	16,5	2,5	10	0	6	6	6	63	E290B008	E290B051	
		2,5	10	0	0	12	12	10	90	E290B009	E290B052	
		4	10	0	0	16	16	10	90	E290B011	E290B054	314/356
		4	10	0	0	6	6	6	63	E290A016	E290A059	189/356
1 1/4	32	27	4	10	0	12	12	10	90	E290A017	E290A060	314/356
		2,5	10	0	0	3	3	3	63	E290A014	-	189/356
		2,5	10	0	0	7	7	7	90	E290A015	E290A058	314/356
		4	10	0	0	4	4	4	63	E290A020	E290A063	189/356
1 1/2	40	45	4	10	0	8	8	8	90	E290A021	E290A064	
		2,5	10	0	0	4	4	4	90	E290A019	E290A062	314/356
		48	4	10	0	16	16	10	125	E290A482	-	
		59	4	10	0	2,5	2,5	2,5	63	E290A024	E290A067	189/356
2	50	66	4	10	0	6	6	6	90	E290A025	E290A068	
		59	4	10	0	10	10	10	125	E290A485	E290A498	
		2,5	10	0	0	2,5	2,5	2,5	90	E290A023	-	314/356
2 1/2	65	111	4	10	0	6	6	6	125	E290A488	E290A501	
		94	4	10	0	2	2	2	90	E290A487	E290A500	
<b>2/2 NC - entry above the disc (version recommended for steam applications with high cycling rates)</b>												
3/8	10	2,8	4,5	10	0	10	-	10	32	-	E290A797	
		4,1	4,5	10	0	10	-	10	32	-	E290A798	
1/2	15	4,9	3	10	0	10	-	10	50	E290A390	E290A399	
		6	10	0	0	10	-	10	63	E290B036	E290B079	189/356
		9,4	3	10	0	10	-	10	50	E290A391	E290A400	
3/4	20	6,5	4,5	10	0	10	-	10	32	-	E290A799	
		9,4	6	10	0	10	-	10	63	E290B037	E290B080	
		12,8	3	10	0	10	-	10	50	E290A392	E290A401	
1	25	16,5	2,5	10	0	10	-	10	63	E290B038	-	189/356
1 1/4	32	27	3	10	0	10	-	10	63	E290A039	-	
1 1/2	40	45	2,5	10	0	10	-	10	63	E290A040	-	
		3	10	0	0	10	-	10	90	E290A043	-	314/356
2	50	59	3	10	0	9	-	9	63	E290A042	E290A085	189/356
		3	10	0	0	10	-	10	90	-	E290A086	314/356

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# 2/2 PRESSURE OPERATED VALVES

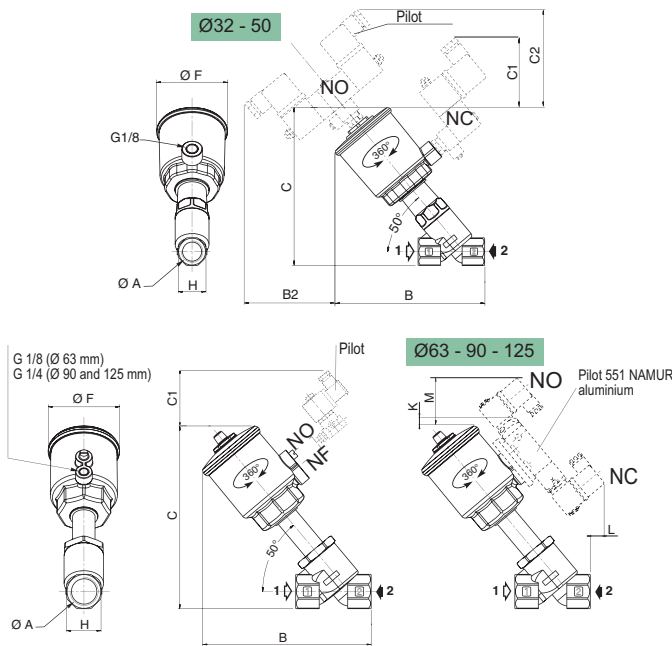
## YOUR SELECTION (2/2 VALVES)

pipe size	orifice size	flow coefficient	pilot pressure		max. operating pressure differential bar				operator dia.	code		pilot valve series
			bar		min.	max.				bronze	stainless steel	
			Kv	min.		air, inert gas, aggressive fluids	water, oil, liquids, aggressive liquids	steam ≤ 184°C				
G	mm	m <sup>3</sup> /h	min.	max.					mm			
<b>2/2 NO - entry under the disc</b>												
3/8	10	2,8	1	10	0	16	16	10	32	-	<b>E290A794</b>	189/356
		4,1	1	10	0	16	16	10	32	-	<b>E290A795</b>	
1/2	15	4,9	3	10	0	16	16	10	50	<b>E290A387</b>	-	
		4,9	3	10	0	16	16	10	50	-	<b>E290A396</b>	
		4,9	2	10	0	16	16	10	63	<b>E290B026</b>	<b>E290B069</b>	
3/4	20	9,4	3	10	0	16	16	10	50	<b>E290A388</b>	<b>E290A397</b>	
		6,5	2	10	0	16	16	10	32	-	<b>E290A796</b>	
		9,4	2	10	0	16	16	10	63	<b>E290B027</b>	<b>E290B070</b>	
1	25	16,5	2	10	0	16	16	10	63	<b>E290B028</b>	<b>E290B071</b>	
		12,8	3	10	0	16	16	10	50	<b>E290A389</b>	<b>E290A398</b>	
2	50	59	2	10	0	7	7	7	63	<b>E290A034</b>	-	

### valves with visual position indicator

pipe size	orifice size	flow coefficient	pilot pressure		max. operating pressure differential bar				operator dia.	code		pilot valve series
			bar		min.	max.				bronze	stainless steel	
			Kv	min.		air, inert gas, aggressive fluids	water, oil, liquids, aggressive liquids	steam ≤ 184°C				
G	mm	m <sup>3</sup> /h	min.	max.					mm			
<b>2/2 NC - entry under the disc</b>												
3/8	10	2,8	4	10	0	16	16	10	32	-	<b>E290A791VI</b>	189/356
1/2	15	4,1	4	10	0	12	12	10	32	-	<b>E290A792VI</b>	
3/4	20	6,5	4	10	0	6	6	6	32	-	<b>E290A793VI</b>	

## DIMENSIONS



operator dia.	ØA	B	B2	C1 pilot		C2 pilot		C	D	E	ØF	H	
				189	356	189	356						
32	3/8	92	83	77	63	100	88	93	81,5	55	43,5	23,5	
	1/2	99	83	77	63	100	88	97	83,5	65	43,5	28	
	3/4	107	83	77	63	100	88	104,5	88,5	75	43,5	30	
50	1/2	142	72	65	54	81	78	154,5	141	65	69	27	
	3/4	150,5	72	65	54	81	78	159	143	75	69	32	
	1	155	72	65	54	81	78	165	145	90	69	41	
operator dia.	ØA	B	C	C1 (NC) pilot		C1 (NO) pilot		E	ØF	H	K	L	M
				189	356	189	356						
63	1/2	170	182	51	39	60	57	65	85	27	7	42	66
	3/4	175	185	51	39	60	57	75	85	32	7	42	66
	1	179	192	51	39	60	57	90	85	41	7	42	66
90	1 1/4	217	229	51	39	60	57	110	85	50	7	42	66
	1 1/2	224	245	51	39	60	57	120	85	60	7	42	66
	2	249	259	51	39	60	57	150	85	70	7	42	66
125	1	197	209	71	72	91	91	90	118	41	2	16	59
	1 1/4	236	246	71	72	91	91	110	118	50	2	16	59
	1 1/2	243	262	71	72	91	91	120	118	60	2	6	59
125	2	267	276	71	72	91	91	150	118	70	2	-	59
	2 1/2	299	300	71	72	91	91	190	118	86	2	-	59
	1 1/2	291	313,5	71	72	91	91	120	156	60	-	-	22
125	2	315	328	71	72	91	91	150	156	70	-	-	22
	2 1/2	347	352	71	72	91	91	190	156	86	-	-	22

## OPTIONS AND ACCESSORIES

operator dia.	description	code	standard voltages (V)									
			AC (-) / 50Hz			DC (-)						
			24	48	115	230	24	48				
<b>3/2 solenoid pilot valve</b>												
32-50-63 mm	pilot 189 (G 1/8 - 3,5VA / 3W) - Ø 4 mm O.D.	<b>18900032</b>	✓	✓	✓	✓	✓					
	pilot 356 (G 1/8 - 6VA / 5,5W)	brass body <b>SCG356B053VMS</b>	✓	✓	✓	✓	✓					
90-125 mm	pilot 314 Ø2,4 mm (G 1/4 - 23VA / 11,2W)	brass body <b>E314K143S1N01</b> (1)	FL	FR	FT	F8	F1	F9				

(1) Ordering example: add the 2 digits for the voltage at the end of the 15-digit code: E314K143S1N01F1 (24V DC)

# 2/2 SOLENOID VALVES

2/2 solenoid valves  
direct operated  
1/8 - 1/4

series 256      series 262      series 263

**1**      **2**      **3**

pages 10-11

2/2 solenoid valves  
direct operated, 1/4 - 3/8  
for cryogenic service

series 263LT

**4**

page 11

2/2 solenoid valves  
direct operated  
3/8 to 1

series 287

**5**

page 18

2/2 solenoid valves  
pilot operated  
3/8 to 2

series 210      series 238

**6**      **7**

pages 12-13

2/2 solenoid valves  
pilot operated, 1/2 to 1  
for steam applications,

series 220      series 222      series 240

**8**      **9**      **10**

page 14

2/2 solenoid valves  
pilot operated, 1/2  
for cryogenic service

series 222LT

**9**

page 14

## YOUR SELECTION

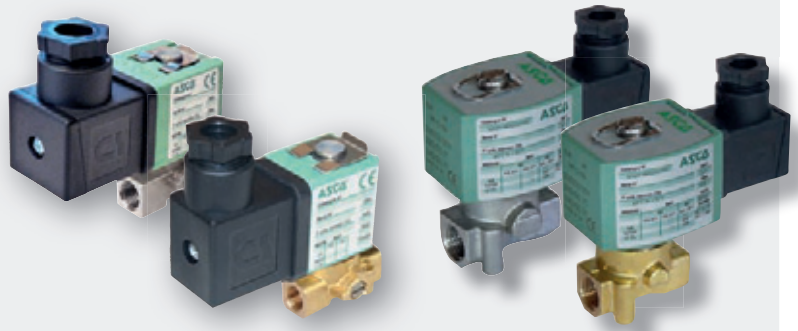
pipe size										fluids					operating pressure differential bar		(M)	visual	series	page																
1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	steam/ hot water	cryogenic fluids	air/gas	water	oil	min.	max.																					
<b>2/2 NC - brass body</b>																																				
●	●										●	●	●	0	28	●	<b>1</b>	256	10																	
●	●										●	●	●	0	40	● - X	<b>2</b>	262	10																	
		●									●	●	●	0	14	X	<b>3</b>	263	10																	
		●	●	●	●	●	●				●	●	●	0	9	X	<b>6</b>	210	12																	
		●	●	●	●						●	●	●	0	10	X	<b>7</b>	238	12																	
		●	●	●	●		●	●			●	●	●	0,35	14	X	<b>6</b>	210	13																	
		●	●	●	●		●	●			●	●		0,3/0,5	16	● - X	<b>7</b>	238	13																	
	●	●									●	●		0	7	X	<b>4</b>	263LT	11																	
			●	●	●				●					0,35	10	X	<b>8</b>	220	14																	
			●	●					●	●				0	9	X	<b>9</b>	222	14																	
			●						●	●				0	9	X	<b>9</b>	222LT	14																	
			●		●				●					0,4	8	X	<b>10</b>	240	14																	
<b>2/2 NC - brass body - coaxial</b>																																				
		●	●								●	●	●	0	40		<b>5</b>	287	18																	
<b>2/2 NC - stainless steel body</b>																																				
●											●	●	●	0	12	●	<b>1</b>	256	11																	
	●										●	●	●	0	40	●	<b>2</b>	262	11																	
		●									●	●	●	0	14	●	<b>3</b>	263	11																	
<b>2/2 NO - brass body</b>																																				
	●										●	●	●	0	18	X	<b>2</b>	262	10																	
		●	●	●							●	●	●	0	9	X	<b>6</b>	210	12																	
<b>3/2 NO - NC - U: see following pages</b>																																				

(M) manual operator   X : without   ● : with

# 2/2 SOLENOID VALVES

direct operated  
brass body, 1/8 - 1/4 - 3/8  
stainless steel body, 1/8 - 1/4 - 3/8

CRYOGENIC SERVICE  
brass body, 1/4 - 3/8



	series 256	series 262	series 263	series 263LT
Fluids	air, inert gas, water, oil			cryogenic fluids
Differential pressure	refer to selection table			
Fluid temperature (TS)	-10°C to +100°C	-25°C to +80°C	-25°C to +80°C	-25°C to +80°C
Ambient temperature (TS)	-10°C to +60°C	-25°C to +55°C	-25°C to +55°C	-20°C to +75°C -20°C to +50°C (SCE263B206LT)
Body	brass / SS			SS
Sealings	FPM	NBR (nitrile) or FPM (V00) or EPDM (E00)	NBR (nitrile)	Lead-clap copper
Standard voltages	DC (-) AC (-)	24 - 48V 24 - 48 - 115 - 230V / 50Hz		-

- Quick installation due to reduced dimensions
- Long service life in outdoor applications
- AC/DC Interchangeability of the solenoid (series 256)
- Easy to override using the manual operator
- The 263LT series will withstand the severe service encountered in controlling cryogenic fluids, such as liquid oxygen (-183°C), liquid argon (-186°C) and liquid nitrogen (-196°C)

## YOUR SELECTION

pipe size	orifice size	flow coefficient Kv	operating pressure differential bar						power		(M)	connector	code G = ISO 228; E = Rp ISO 7/1; B = NPT	standard voltages (V)						
			max.						~	=				AC (~) / 50Hz			DC (=)			
			min.	air		water		oil						W	W	24	48	115	230	24
<b>2/2 NC - brass body</b>																				
1/8	1,2	0,05	0	28	20	28	20	28	20	4	6,9	●	size 22 (1)	<b>SCG256B001VMS</b>	✓		✓	✓		
	1,6	0,08	0	20	12	20	12	20	12	4	6,9	●		<b>SCG256B002VMS</b>	✓		✓	✓		
	2,0	0,11	0	15	6	15	6	15	6	4	6,9	●		<b>SCG256B003VMS</b>	✓	✓	✓	✓		
	2,4	0,13	0	12	4	12	4	12	4	4	6,9	●		<b>SCG256B004VMS</b>	✓	✓	✓	✓		
1/4	1,6	0,08	0	20	12	20	12	20	12	4	6,9	●	size 22 (1)	<b>SCG256B402VMS</b>	✓		✓	✓		
	1,6	0,08	0	20	15	20	15	20	15	5	6,9	●		<b>SCG256B466VMS</b>	✓		✓	✓		
	2,4	0,16	0	12	4	12	4	12	4	4	6,9	●		<b>SCG256B404VMS</b>	✓	✓	✓	✓		
	2,4	0,16	0	15	8	15	8	15	8	5	6,9	●		<b>SCG256B470VMS</b>	✓		✓	✓		
<b>15-DIGIT PRODUCT CODE (3)</b>																				
1/8	3,2	0,3	0	12	8	12	6,5	8	6	8,1	10,6	×	size 30 (2)	<b>G262K002S1N00</b>	FL	FR	FT	F8	H1	H9
	2,4	0,18	0	25	14	22	10	11	10	8,1	10,6	×		<b>E262K020S1N00</b>	FL	FR	FT	F8	H1	H9
	2,4	0,18	0	40	16	28	16	28	15	10,1	11,6	×		<b>E262K108S1N00</b>	FL	FR	FT	F8	H1	H9
	3,2	0,3	0	12	8	12	6,5	6	5,5	8,1	10,6	×		<b>E262K022S1N00</b>	FL	FR	FT	F8	H1	H9
	3,2	0,3	0	12	8	12	6,5	6	5,5	8,1	10,6	×		<b>E262K022S1V00</b>	FL	FR	FT	F8	H1	H9
	3,2	0,3	0	18	10	17	8	10	7,5	11,1	18,6	×		<b>E262K023S1N00</b>	FL	FR	FT	F8	H1	H9
	4	0,45	0	14	3,5	13	3,5	10	3,5	10,1	11,6	×		<b>E262K202S1N00</b>	FL	FR	FT	F8	H1	H9
	3,2	0,3	0	23	7,5	20	7	14	6,5	10,1	11,6	×		<b>E262K232S1N00</b>	FL	FR	FT	F8	H1	H9
	3,2	0,3	0	23	7,5	20	7	14	6,5	10,1	11,6	●		<b>E262K232S1N01</b>	FL	FR	FT	F8	H1	H9
	7,1	0,76	0	2	1,6	2	1,5	2	1,3	8,1	10,6	×		<b>E262K090S1N00</b>	FL	FR	FT	F8	H1	H9
1/4	2,4	0,18	0	40	16	28	16	28	15	10,1	11,6	●	size 30 (2)	<b>E262K108S1N01</b>	FL	FR	FT	F8	H1	H9
	4	0,45	0	14	3,5	13	3,5	10	3,5	10,1	11,6	●		<b>E262K202S1N01</b>	FL	FR	FT	F8	H1	H9
	5,6	0,63	0	6,5	2	6,5	2	6,5	2	10,1	11,6	×		<b>E262K208S1N00</b>	FL	FR	FT	F8	H1	H9
	5,6	0,63	0	6,5	2	6,5	2	6,5	2	10,1	11,6	●		<b>E262K208S1N01</b>	FL	FR	FT	F8	H1	H9
	5,6	0,63	0	6,5	2	6,5	2	6,5	2	10,1	11,6	×		<b>E262K208S1E00</b>	FL	FR	FT	F8	H1	H9
	7,1	0,76	0	6	3	6	3	6	3	17,1	22,6	×		<b>E262K212S1N00</b>	FL	FR	FT	F8	H1	H9
	4	0,45	0	14	3,5	12	3,5	6,5	3	10,1	11,6	×		<b>E263K200S1N01</b>	FL	FR	FT	F8	H1	H9
	5,6	0,63	0	6,5	2	5,5	2	4,5	2	10,1	11,6	×		<b>E263K124S1N01</b>	FL	FR	FT	F8	H1	H9
	<b>15-DIGIT PRODUCT CODE (3)</b>																			
	<b>2/2 NO - brass body</b>																			
1/4	2,4	0,18	0	18	11	15	9	12	6,5	10,1	11,6	×	size 30 (2)	<b>E262K261S1N00</b>	FL	FR	FT	F8	H1	H9
	3,2	0,3	0	11	6,5	10	6,5	8,5	4,5	10,1	11,6	×		<b>E262K262S1N00</b>	FL	FR	FT	F8	H1	H9

(M) Manual operator × without ● : with

(1) DIN 43650, 11 mm, industry standard B

(2) ISO 4400 / EN 175301-803, form A

(3) Ordering example: add the 2 digits for the voltage at the end of the 15-digit code: E262K020S1N00H1 (24V DC)

Other type of connectors available:

.. Connector with LED and electrical protection, change S1 to S2 on positions 9 and 10 of the code: Ordering example: E262K020S2N00H1

.. Connector with LED and protection by Transil + 5 m lead, change S1 to S3 on positions 9 and 10 of the code: Ordering example: E262K020S3N00H1

.. Connector with LED and protection by Transil + 5 m CNOMO lead resistant to cutting fluid, change S1 to S4 on positions 9 and 10 of the code: Ordering example: E262K020S4N00H1

# 2/2 SOLENOID VALVES

## YOUR SELECTION

pipe size	orifice size	flow coefficient Kv m <sup>3</sup> /h	operating pressure differential (bar)						power		(M)	connector	code G = ISO 228; E = Rp ISO 7/1; B = NPT	standard voltages (V)						
			min.	max.			~	=	AC (-) / 50Hz					DC (=)						
				air	water	oil			~	=				24	48	115	230	24	48	
<b>2/2 NC - stainless steel body</b>																				
1/8	2,4	0,13	0	12	4	12	4	12	4	4	6,9	●	size 22 (1)	<b>SCG256B016VMS</b>	✓	✓	✓	✓	✓	
<b>15-DIGIT PRODUCT CODE (3)</b>																				
1/4	2,4	0,18	0	40	16	28	16	28	15	10,1	11,6	●	size 30 (2)	<b>E262K182S1N01</b>	FL	FR	FT	F8	H1	H9
	3,2	0,3	0	23	7,5	20	7	14	6,5	10,1	11,6	●		<b>E262K184S1N01</b>	FL	FR	FT	F8	H1	H9
3/8	4	0,45	0	14	3,5	12	3,5	6,5	3	10,1	11,6	●	size 30 (2)	<b>E263K331S1N01</b>	FL	FR	FT	F8	H1	H9
	5,6	0,63	0	6,5	2	5,5	2	4,5	2	10,1	11,6	●		<b>E263K195S1N01</b>	FL	FR	FT	F8	H1	H9

(3) Ordering example : add the 2 digits for the voltage at the end of the 15-digit code: E262K182S1N01H1 (24V DC)

<b>for cryogenic service</b>																			
pipe size	orifice size	flow coefficient Kv m <sup>3</sup> /h	operating pressure differential (bar)						power		(M)	connector	code G = ISO 228; E = Rp ISO 7/1; B = NPT	standard voltages (V)					
			min.	cryogenic fluids			~	=	AC (-) / 50Hz					DC (=)					
				~	=				~	=				24	48	115	230	24	48
<b>2/2 NC - brass body</b>																			
		0,6	0	3		-		10,5	-	×			<b>SCE263-209LT</b>	✓	✓		✓		
		0,6	0	3		-		10,5	-	×			<b>SCE263A210LT</b>	✓	✓	✓	✓		
		5,6	0,48	0	7		-	16,7	-	×			<b>SCE263B206LT</b>					✓	

(M) Manual operator × without ● : with

(1) DIN 43650, 11 mm, industry standard B

(2) ISO 4400 / EN 175301-803, form A

(3) Ordering example: add the 2 digits for the voltage at the end of the 15-digit code: E262K182S1N01H1 (24V DC)

Other type of connectors available:

. Connector with LED and electrical protection, change S1 to S2 on positions 9 and 10 of the code: Ordering example: E262K182S2N01H1

. Connector with LED and protection by Transil + 5 m lead, change S1 to S3 on positions 9 and 10 of the code: Ordering example: E262K182S3N01H1

. Connector with LED and protection by Transil + 5 m CNOMO lead resistant to cutting fluid, change S1 to S4 on positions 9 and 10 of the code: Ordering example: E262K182S4N01H1

## DIMENSIONS

(See page 17)

## OPTIONS AND ACCESSORIES

Connector with integrated electrical indication and protection or cable of 2m (see page 103)

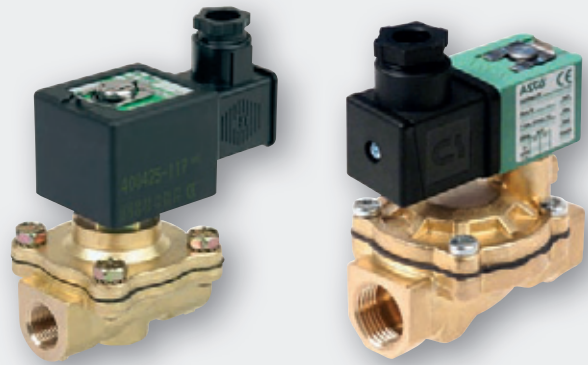


Replacement coils (see page 104)



# 2/2 SOLENOID VALVES

pilot operated  
brass body, 3/8 to 2



	series 210	series 238
Fluids	air, inert gas, water, oil	air, inert gas, water
Differential pressure	refer to selection table	
Fluid temperature (TS)	-20°C to +85°C	-10°C to +85°C
Ambient temperature (TS)	-20°C to +75°C -20°C to +50°C (DC (=): G1, G1 1/4, G 1 1/2)	-10°C to +60°C
Body	brass	
Sealings	NBR (nitrile) or FPM (V suffix) or EPDM (E suffix)	
Standard voltages	DC (=) AC (~)	24 - 48V 24 - 48 - 115 - 230V / 50Hz

- Zero bar minimum operating pressure (series 210)
- Long service life for outdoor applications
- Low power consumption (series 238)
- Wide range of flow rates (2,4 to 34 m³/h)
- AC/DC Interchangeability of the solenoid (series 238)

## YOUR SELECTION

pipe size	orifice size	flow coefficient Kv m³/h	operating pressure differential bar				power		(M)	connector	code G = ISO 228; E = Rp ISO 7/1; B = NPT	standard voltages (V)					
			min. bar	max. (PS)		~ W	= W	AC (~) / 50Hz				DC (=)					
				air/water ~ =	oil ~ =			24				48	115	230	24	48	
<b>2/2 NC - Min. pressure 0 bar (hung diaphragm)</b>																	
3/8	16	2,6	0	9	3	-	-	10,5	11,2	×	size 30 (2)	<b>SCE210C093</b>	✓	✓	✓	✓	✓
	12,5	2,1	0	10	10	-	-	6	15,3	×		<b>SCG238A044</b>	✓			✓	✓
1/2	12,5	2,1	0	10	10	-	-	6	15,3	×	size 30 (2)	<b>SCG238A046</b>	✓			✓	✓
	19	4,2	0	10	10	-	-	6	15,3	×		<b>SCG238A047</b>	✓			✓	✓
3/4	16	3,4	0	9	3	-	-	10,5	11,2	×	size 30 (2)	<b>SCE210C094</b>	✓	✓	✓	✓	✓
	19	4,3	0	9	3	-	-	10,5	11,2	×		<b>SCE210D095</b>	✓	✓	✓	✓	✓
1	25	11,1	0	9	6	9	6	15,4	23	×	size 30 (2)	<b>SCG238A048</b>	✓	✓	✓	✓	✓
		10	0	10	10	-	-	9	15,3	×		<b>SCE210B154</b>	✓	✓	✓	✓	✓
1 1/4	28	12,8	0	9	6	9	6	15,4	23	×	size 30 (2)	<b>SCG238A050</b>	✓			✓	✓
1 1/2	32	19,3	0	9	5	9	5	15,4	23	×		<b>SCE210B155</b>	✓	✓	✓	✓	✓
<b>2/2 NO - Min. pressure 0 bar (hung diaphragm)</b>																	
3/8	16	2,6	0	9	9	9	5	10,5	11,2	×	size 30 (2)	<b>SCE210C033</b>	✓	✓	✓	✓	
1/2	16	3,4	0	9	9	9	5	10,5	11,2	×		<b>SCE210C034</b>	✓	✓	✓	✓	✓
3/4	19	4,7	0	9	9	9	5	10,5	11,2	×		<b>SCE210C035</b>	✓	✓	✓	✓	✓

(M) Manual operator

× : without ● : with

(2) ISO 4400 / EN 175301-803, form A

# 2/2 SOLENOID VALVES

## YOUR SELECTION

pipe size	orifice size	flow coefficient Kv	operating pressure differential bar				power		(M)	connector	code G = ISO 228; E = Rp ISO 7/1; B = NPT	standard voltages (V)					
			min.	max. (PS)			~	=				AC (~) / 50Hz			DC (=)		
				bar	air/water	oil						W	W	24	48	115	230
<b>2/2 NC - Min. pressure 0,35 bar (floating diaphragm)</b>																	
3/8	16	2,6	0,35	14/10	9/7	10	7	6	11,2	×	<b>SCE210D001</b>	✓		✓	✓		
1/2	16	3,4	0,35	14/10	9/7	10	7	6	11,2	×	<b>SCE210D002</b>	✓	✓	✓	✓		
3/4	19	4,3	0,35	9/9	7/6	8	5	6	11,2	×	<b>SCE210D009</b>	✓		✓			
1	25	11,1	0,35	9/6	9/9	9	9	6	11,2	×	<b>SCE210D004</b>			✓	✓		
1 1/2	32	19,3	0,35	9	9	9	9	6	11,2	×	<b>SCE210D022</b>	✓		✓			
2	44	37	0,35	9	3	6	3	9	15,3	×	<b>SCE210-100</b>	✓		✓			
<b>2/2 NC - Min. pressure 0,3/0,5 bar (floating diaphragm)</b>																	
3/8	12	2,4	0,3	10	10	-	-	4	6,9	×	<b>SCE238D001</b>	✓	✓	✓	✓		
		2,4	0,3	10	10	-	-	4	6,9	●	<b>SCE238D001MO</b>	✓					
		2,4	0,3	16	16	-	-	5	6,9	×	<b>SCE238D006</b>				✓		
		2,4	0,3	16	16	-	-	5	6,9	●	<b>SCE238D006MO</b>				✓		
1/2	12	2,4	0,3	10	10	-	-	4	6,9	×	<b>SCE238D002</b>	✓		✓	✓		
		2,4	0,3	10	10	-	-	4	6,9	●	<b>SCE238D002MO</b>			✓			
		2,4	0,3	16	16	-	-	5	6,9	×	<b>SCE238D007</b>				✓		
		4,2	0,3	10	10	-	-	4	6,9	×	<b>SCE238D003</b>	✓	✓	✓	✓		
1/2	15	4,2	0,3	10	10	-	-	4	6,9	●	<b>SCE238D003MO</b>	✓	✓	✓	✓		
		4,2	0,3	16	16	-	-	5	6,9	×	<b>SCE238D008</b>		✓		✓		
		4,2	0,3	16	16	-	-	5	6,9	●	<b>SCE238D008MO</b>				✓		
		6,6	0,3	10	10	-	-	4	6,9	×	<b>SCE238D004</b>	✓		✓	✓		
3/4	20	6,6	0,3	10	10	-	-	4	6,9	●	<b>SCE238D004MO</b>		✓	✓	✓		
		6,6	0,3	16	16	-	-	5	6,9	×	<b>SCE238D009</b>				✓		
		9,9	0,3	10	10	-	-	4	6,9	×	<b>SCE238D005</b>	✓		✓	✓		
		9,9	0,3	10	10	-	-	4	6,9	●	<b>SCE238D005MO</b>			✓	✓		
1	25	9,9	0,3	16	16	-	-	5	6,9	×	<b>SCE238D010</b>				✓		
		9,9	0,3	16	16	-	-	5	6,9	●	<b>SCE238D010MO</b>				✓		
1 1/4	30	15	0,5	10	10	-	-	8	9	×	<b>SCG238C016</b>			✓	✓		
1 1/2	45	27	0,5	10	10	-	-	8	9	×	<b>SCG238C017</b>			✓	✓		
		27	0,5	10	10	-	-	8	9	●	<b>SCG238C017MO</b>			✓	✓		
2	45	34	0,5	10	10	-	-	8	9	×	<b>SCG238C018</b>			✓	✓		

(M) Manual operator    × : without    ● : with    (2) ISO 4400 / EN 175301-803, form A

## DIMENSIONS

(See page 18)

## OPTIONS AND ACCESSORIES

Connector with integrated electrical indication and protection or cable of 2m (see page 103)



Replacement coils (see page 104)



Other seal materials FPM, EPDM, CR

Stainless steel body (series 210)



# 2/2 SOLENOID VALVES

pilot operated  
STEAM SERVICE  
brass body, 1/2 to 1

CRYOGENIC SERVICE  
brass body, 1/2



	series 220	series 222	series 240	series 222LT
Fluids	hot water, steam		superheated water, steam	cryogenic fluids
Differential pressure	refer to selection table			
Fluid temperature (TS)	-20°C to +150°C (EPDM discs) -20°C to +184°C (PTFE discs)	-20°C to +120°C	-60°C to +170°C	-196°C to +90°C
Ambient temperature (TS)	-20°C to +40°C	-20°C to +40°C	-10°C to +80°C	-20°C to +50°C
Body	brass			
Sealings	EPDM (ethylene-propylene) PTFE	EPDM (ethylene-propylene)	PTFE - reinforced	PTFE - reinforced
Standard voltages DC (=) AC (-)	24 - 48V		-	-
	24 - 115 - 230V / 50 Hz			

- Handles high temperature fluids
- Small compact sized valves particularly designed for steam applications
- PTFE and EPDM discs plus high temperature coils help provide a long and reliable service life
- The 222LT series will withstand the severe service encountered in controlling cryogenic fluids, such as liquid oxygen (-183°C), liquid argon (-186°C) and liquid nitrogen (-196°C)

## YOUR SELECTION

pipe size	orifice size	flow coefficient Kv	operating pressure differential bar						power		(M)	connector	code G=ISO-228; E=Rp ISO-7; B=NPT	standard voltages (V)					
			min.	max. (PS)			~	=	AC (-) / 50Hz	DC (=)									
				steam	water	cryogenic fluids								24	48	115	230	24	48
<b>2/2 NC - brass body - for steam service</b>																			
1/2	16	3,5	0	3,5	3,5	-	-	-	10,5	16,8	×	size 30 (2)	<b>SCE222B094</b>	✓	✓				
		3,5	0,35	10	-	10	-	-	10,5	-	×		<b>SCE220A021</b>	✓	✓				
3/4	19	2,5	0,4	8	-	8	-	-	6	-	×	<b>SCG240A101</b>	✓	✓					
		4,3	0	3,5	3,5	-	-	-	10,5	16,8	×	<b>SCE222B095</b>	✓	✓					
1	25	11,6	0,35	10	-	10	-	-	10,5	-	×	<b>SCE220-025</b>	✓	✓					
		18,5	8,5	0,4	6	-	6	-	9	-	×	<b>SCG240A103</b>	✓	✓					
<b>2/2 NC - brass body - for cryogenic service</b>																			
1/2	16	3,3	0	-	-	-	-	9	16,7	-	×	size 30 (2)	<b>SCE222E002LT</b>	✓	✓				

(M) Manual operator × without  
(2) ISO 4400 / EN 175301-803, form A

## DIMENSIONS

(See page 17)

## OPTIONS AND ACCESSORIES

Connector with integrated electrical indication and protection or cable of 2m (see page 103)



Replacement coils (see page 104)



Use suffix MB to order incl. mounting bracket, only for series 220 and 222.

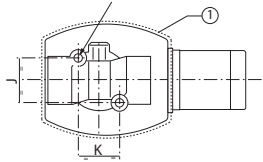
# 2/2 SOLENOID VALVES

## DIMENSIONS

### 2/2 Solenoid valves, direct operated, series 256 - 262 - 263

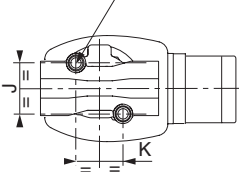
bottom view  
(series 262)

2 mounting holes M5  
dia., depth 7,5 mm

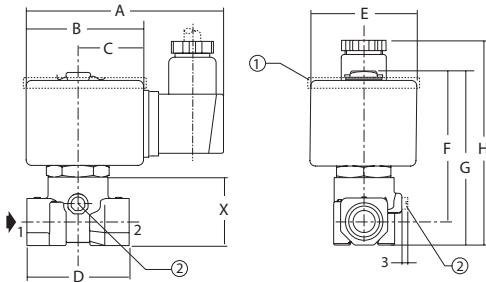


bottom view  
(series 263)

2 mounting holes M5  
dia., depth 6 mm.



series 262-263

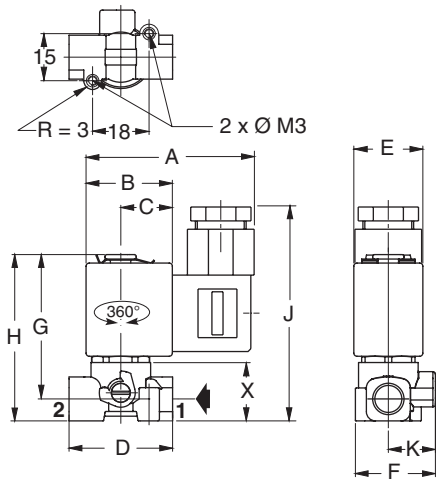


- ① NO version only.
- ② Manual operator location.

code	A	B	C	D	E	F	G	H	J	K	X
<b>SCG256B001VMS</b>											
<b>SCG256B002VMS</b>											
<b>SCG256B003VMS</b>											
<b>SCG256B004VMS</b>	57,5	27,5	16,5	33	22	46	53	69	15	18	18,6
<b>SCG256B016VMS</b>											
<b>SCG256B402VMS</b>											
<b>SCG256B404VMS</b>											
<b>SCG256B466VMS</b>	73	38	23,3	40	29,7	48	57	78,5	21	18	23,4
<b>SCG256B470VMS</b>											
<b>E262K020S1N00</b>											
<b>E262K022S1N00</b>	95	57	33	40	43	65	75	92	22	22	30
<b>E262K022S1V00</b>											
<b>E262K023S1N00</b>											
<b>E262K108S1N00</b>											
<b>E262K202S1N00</b>	95	57	33	40	50	69	78	96	22	22	30
<b>E262K232S1N00</b>											
<b>E262K232S1N01</b>											
<b>E262K090S1N00</b>	95	57	33	40	43	65	75	92	22	22	30
<b>E262K108S1N01</b>											
<b>E262K202S1N01</b>											
<b>E262K208S1N00</b>											
<b>E262K208S1N01</b>	95	57	33	40	50	69	78	96	22	22	30
<b>E262K208S1E00</b>											
<b>E262K208S1E00</b>											
<b>E262K212S1N00</b>											
<b>E262K261S1N00</b>	96	59	34	40	52	69	78	96	22	22	30
<b>E262K262S1N00</b>											
<b>E262K182S1N01</b>	95	57	33	40	50	69	78	96	22	22	30
<b>E262K184S1N01</b>											
<b>E263K200S1N01</b>											
<b>E263K124S1N01</b>	95	57	33	48	50	69	80	107	20,5	19	32
<b>E263K331S1N01</b>											
<b>E263K195S1N01</b>											
<b>SCE263-209LT</b>											
<b>SCE263A210LT</b>											
<b>SCE263B206LT</b>											

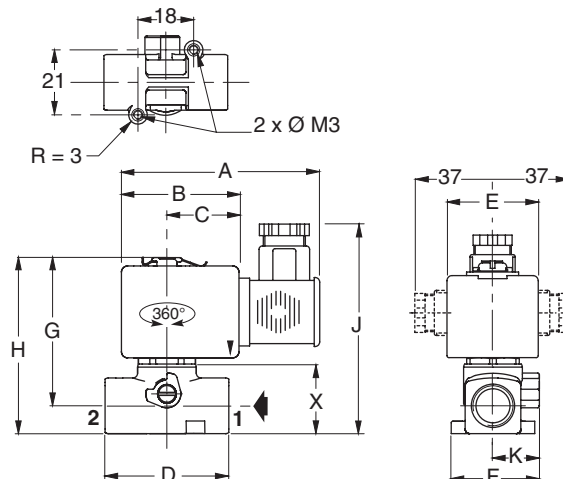
➔ flow direction

256 NC 1/8



➔ flow direction

256 NC 1/4



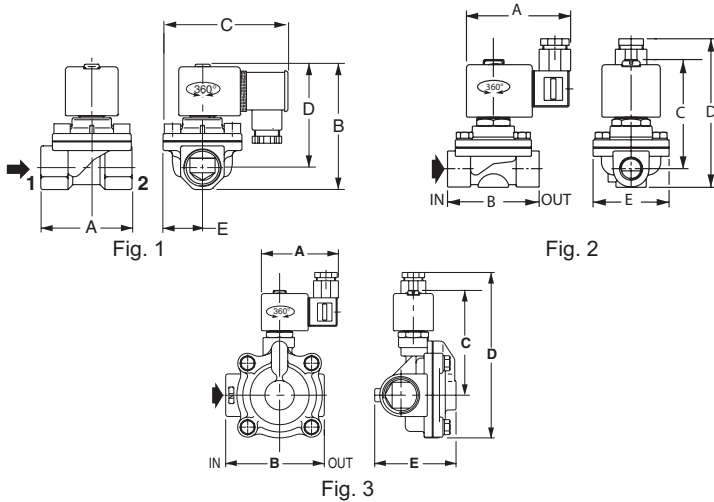


# 2/2 SOLENOID VALVES

## DIMENSIONS

### 2/2 Solenoid valves, pilot operated series 210 - 238

#### series 210

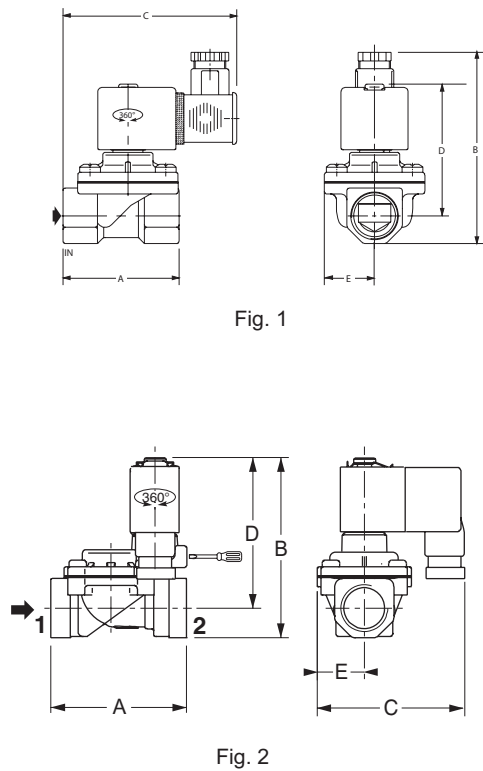


code	A	B	C	D	E	(C)
<b>SCE210C093</b>						
<b>SCE210C094</b>	70	97	89	80	29	
<b>SCE210D095</b>						
<b>SCE210B154</b>	95	129	104,5	112	41,5	Fig. 1
<b>SCE210B155</b>	95	143	104,5	112	41,5	
<b>SCE210B156</b>	111	153	112,5	125	49,5	
<b>SCE210C033</b>						
<b>SCE210C034</b>	70	108	89	98	29	
<b>SCE210C035</b>	70	117	89	102	29	
<b>SCE210D001</b>	70	103	75	72	29	Fig. 2
<b>SCE210D002</b>	70	103	75	72	29	
<b>SCE210D009</b>	71	109	75	76	29	
<b>SCE210D004</b>	80	111	109	174	100	Fig. 3
<b>SCE210D022</b>	80	111	109	174	100	
<b>SCE210-100 (AC)</b>	75	129	116	203	120	

(C) Construction type

➔ flow direction

#### series 238



code	A	B	C	D	E	(C)
<b>SCG238A044</b>	52	104	91,5	72	18,5	Fig. 1
<b>SCG238A046</b>	52	104	91,5	72	18,5	
<b>SCG238A047</b>	65	106	107	74	29	
<b>SCG238A048</b>	67	111	109	76	29	
<b>SCG238A049</b>	86	131	117,5	92	36,5	
<b>SCE238D001</b>						
<b>SCE238D001(MO)</b>	62	82	71	69	22	Fig. 2
<b>SCE238D002</b>						
<b>SCE238D002(MO)</b>						
<b>SCE238D003</b>	82	85	78	71	29	
<b>SCE238D003(MO)</b>						
<b>SCE238D004</b>	95	96	83	80	34	
<b>SCE238D004(MO)</b>						
<b>SCE238D005</b>	106	105	93	85	44	
<b>SCE238D005(MO)</b>						
<b>SCE238D006</b>						
<b>SCE238D006(MO)</b>	62	83	61,5	70	22	
<b>SCE238D007</b>						
<b>SCE238D008</b>	82	86	77,5	72	29	
<b>SCE238D008(MO)</b>						
<b>SCE238D009</b>	95	97	89,5	81	34	
<b>SCE238D010</b>	106	106	97	86	44	
<b>SCG238C016</b>	113	135	98	109	41	
<b>SCG238C017</b>	140	142	112	112	55	
<b>SCG238C017(MO)</b>	140	165	112	135	55	
<b>SCG238C018</b>	157	153	112	117	55	

(C) Construction type

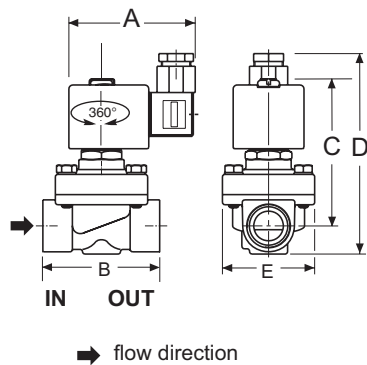
➔ flow direction

# 2/2 SOLENOID VALVES

## DIMENSIONS

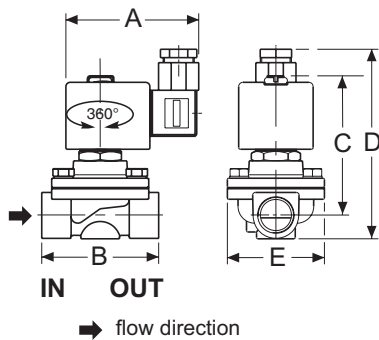
### 2/2 Solenoid valves, pilot operated, series 220 - 222 - 240

#### series 220



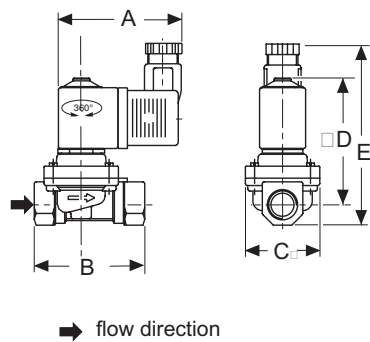
code	A	B	C	D	E
<b>SCE220A021</b>	80	70	88	119	58
<b>SCE220-025</b>	80	95	106	162	78

#### series 222



code	A	B	C	D	E
<b>SCE222B094</b>	80	70	84	113	58
<b>SCE222B095</b>	80	71	87	121	58
<b>SCE222E002LT</b>	80	70	104	131	59

#### series 240



code	A	B	C	D	E
<b>SCG240A101</b>	61,5	66	40	72	100
<b>SCG240A103</b>	73	105	71	102	138

# 2/2 SOLENOID VALVES & VALVES

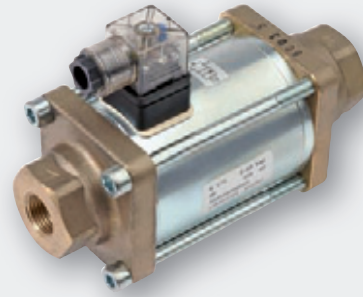
## 287 series

### COAXIAL

direct operated

for high pressure fluids

G 3/8 to G 3/4



Fluids	air, gas, water, oil	
Differential pressure	refer to selection table	
Fluid temperature	-20°C to +100°C	
Ambient temperature	-20°C to +60°C	
Maximum viscosity	500 cSt (mm <sup>2</sup> /s)	
Body	brass/stainless steel	
Sealing disc/cable gland	FPM /PTFE	
Standard voltages	DC (=)	24 V
Class H		

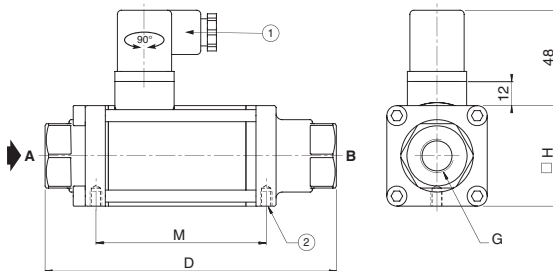
- High flow rates with low pressure drop
- Compatible with gaseous fluids, viscous or abrasive liquids
- Exceptional long service life
- Vacuum operation up to 10<sup>-4</sup> mbar

## YOUR SELECTION

pipe size	orifice size	flow coefficient Kv	operating pressure differential bar		power		code	dimensions mm							
			min.	max.	W	W		brass	D	H	M	N			
							B → A (~=)						A → B (~=)	~	=
G	mm	m <sup>3</sup> /h													
2/2 NC															
3/8	10	2,2	0	12	40	42	35	SCG287A001	145	50	85	-			

## DIMENSIONS

### Solenoid valves

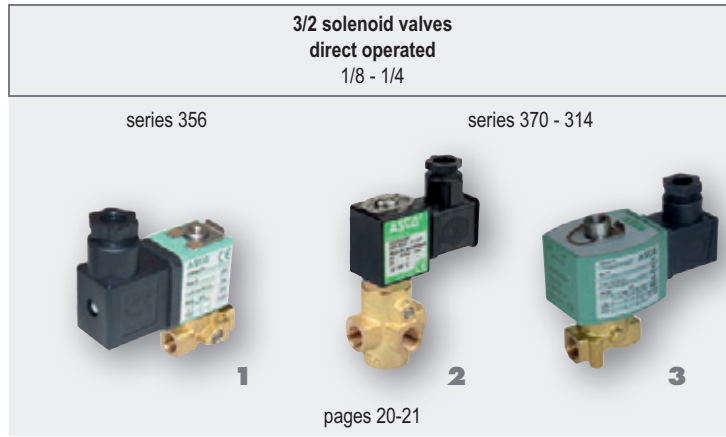


- ① Connector rectifier for AC (~)  
 ② 2 mounting holes Ø M5, depth 7 mm

## OPTIONS AND ACCESSORIES

Mounting brackets

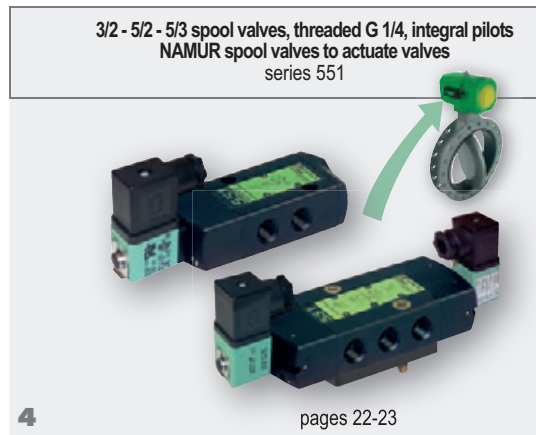
# 3/2 SOLENOID VALVES - 3/2-5/2-5/3 SPOOL VALVES



## YOUR SELECTION

pipe size			fluids			operating pressure differential bar		(M)	visual	series	page
1/8	1/4	3/8 to 1									
<b>3/2 NC - brass body</b>											
●	●		●	●	●	0	15	×	<b>1</b>	356	20
	●		●	●	●	0	10	×	<b>2</b>	370	20
	●		●	●	●	0	14	● - ×	<b>3</b>	314	20
<b>3/2 NC - stainless steel body</b>											
	●		●	●	●	0	16	×	<b>2</b>	370	20
	●		●	●	●	0	20	×	<b>3</b>	314	20
<b>3/2 NO - brass body</b>											
●			●	●	●	0	8,5	×	<b>1</b>	356	20
	●		●	●	●	0	10	×	<b>2</b>	370	20
	●		●	●	●	0	11	● - ×	<b>3</b>	314	20
<b>3/2 U - brass body</b>											
	●		●	●	●	0	4,5	×	<b>3</b>	314	20

(M) manual operator    × : without    ● : with



## YOUR SELECTION

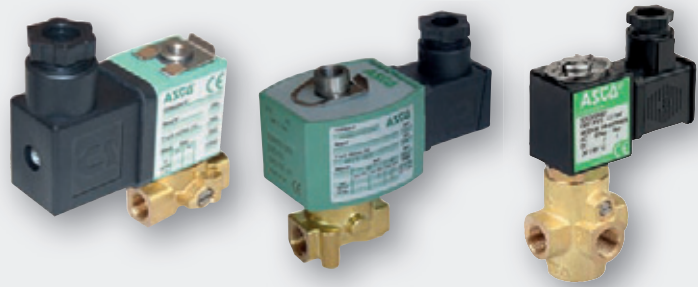
pilot		connection Ø G										max. pressure bar	flow at 6 bar l/min (ANR)	visual	series	page		
solenoid	pilot	M3	M5	1/8	1/4	3/8	1/2	3/4	1	1 1/2	NAMUR interface						NAMUR interface	
<b>3/2</b>																		
●	●				●							●	●	8/10	860	<b>4</b>	551	22
<b>5/2-5/3</b>																		
●	●				●							●	●	10	860	<b>4</b>	551	22
●											●	●	700		<b>4</b>	551		

# 3/2 SOLENOID VALVES

direct operated

brass body, 1/8 - 1/4

stainless steel body, 1/8 - 1/4



	series 356	series 320	series 370	series 314
Fluids	air, inert gas, water, oil			
Differential pressure	refer to selection table			
Fluid temperature (TS)	-10°C to +100°C	-20°C to +90°C	-25°C to +80°C	-25°C to +90°C
Ambient temperature (TS)	-10°C to +60°C	-20°C to +75°C	-25°C to +60°C	-25°C to +55°C
Body	brass/st. steel	brass		brass/st. steel
Sealings	FPM	NBR (nitrile)		NBR (nitrile) or FPM (V00)
Standard voltages DC (-)	24 - 48V			
AC (-)	24 - 48 - 115 - 230V / 50Hz			

- Easy to operate and override using the manual operator
- Compact solution for control of single-acting actuators or filling/draining circuits
- Excellent service life for outdoor applications
- Wide range of flow rates and differential pressures

## YOUR SELECTION

pipe size	orifice size	flow coefficient Kv		operating pressure differential (bar)						power		(M)	connector	code G = ISO 228; E = Rp ISO 7/1; B = NPT	standard voltages (V)						
		2→1	3→1	min.	max.			~	=	24	AC (~) / 50Hz				24	48					
		m³/h	m³/h		air	water	oil				W						W	48	115	230	
<b>3/2 NC - brass body</b>																					
1/8	1,2	0,05	0,05	0	15	15	15	15	15	15	4	6,9	×	size 30 (2)	<b>SCG356B001VMS</b>	✓	✓	✓	✓	✓	
	1,6	0,08	0,05	0	10	10	10	10	10	10	4	6,9	×		<b>SCG356B002VMS</b>	✓			✓	✓	
	2,4	0,13	0,05	0	4	4	4	4	4	4	4	6,9	×		<b>SCG356B004VMS</b>	✓	✓	✓	✓	✓	
	1,6	0,08	0,05	0	10	10	10	10	-	-	4	6,9	×		<b>SCG356B053VMS</b>	✓	✓	✓	✓	✓	
1/4	1,6	0,08	0,05	0	10	10	10	10	10	10	5	6,9	×	size 30 (2)	<b>SCG356B466VMS</b>	✓			✓		
	2,4	0,16	0,05	0	4	4	4	4	4	4	5	6,9	×		<b>SCG356B470VMS</b>	✓			✓		
	0,2	-	0	10	5	10	5	10	5	8	10,8	×	<b>SCE370A002</b>					✓			
	0,2	-	0	10	10	10	10	10	10	10,5	11,2	×	<b>SCE370A017</b>		✓		✓	✓	✓		
	0,2	-	0	10	10	10	10	10	10	10,5	11,2	×	<b>SCE370A017MS</b>			✓		✓	✓		
	0,2	-	0	10	10	10	10	10	10	10,5	11,2	×	<b>SCHTE370A017</b>		✓						
<b>15-DIGIT PRODUCT CODE (3)</b>																					
1/4	0,13	0,17	0	14	10	14	8	13	6	10,1	11,6	×	size 30 (2)	<b>E314K035S1N00</b>	FL	FR	FT	F8	F1	F9	
	0,13	0,17	0	14	10	14	8	13	7	10,1	11,6	●		<b>E314K035S1N01</b>	FL	FR	FT	F8	F1	F9	
<b>3/2 Universal - FPM seals and poppets - brass body</b>																					
<b>15-DIGIT PRODUCT CODE (3)</b>																					
1/4	3,2	0,22	0,17	0	4,5	3,5	4,5	3	2,5	3	10,1	11,6	×	size 30 (2)	<b>E314K008S1V00</b>	FL	FR	FT	F8	F1	F9
<b>3/2 NO - brass body</b>																					
1/8	1,6	0,096	0,05	0	8,5	8,5	8,5	8,5	8,5	8,5	4	6,9	×	size 30 (2)	<b>SCG356B006VMS</b>	✓	✓	✓	✓	✓	
1/4	2	0,11	-	0	10	10	10	10	10	10	10,5	11,2	×		<b>SCE370A021MS</b>			✓		✓	
<b>15-DIGIT PRODUCT CODE (3)</b>																					
1/4	3,2	0,22	0,17	0	11	10	11	10	11	8	10,1	11,6	×	size 30 (2)	<b>E314K054S1N00</b>	FL	FR	FT	F8	F1	F9
		0,22	0,17	0	11	10	11	10	11	8	10,1	11,6	●		<b>E314K054S1N01</b>	FL	FR	FT	F8	F1	F9
<b>3/2 NC - stainless steel body</b>																					
<b>15-DIGIT PRODUCT CODE (3)</b>																					
1/4	1,2	0,04	0,05	0	20	17	20	17	20	17	10,1	11,6	×	size 30 (2)	<b>E314K068S1V00</b>	FL	FR	FT	F8	F1	F9

(M) Manual operator      × : without      ● : with      (1) DIN 43650, 11 mm, industry standard B      (2) ISO 4400 / EN 175301-803, form A

(3) Ordering example: add the 2 digits for the voltage at the end of the 15-digit code: E314K035S1N00F1 (24V DC)

Other type of connectors available:

. Connector with LED and electrical protection, change S1 to S2 on positions 9 and 10 of the code: Ordering example: E314K035S2N00F1

. Connector with LED and protection by Transil + 5 m lead, change S1 to S3 on positions 9 and 10 of the code: Ordering example: E314K035S3N00F1

. Connector with LED and protection by Transil + 5 m CNOMO lead resistant to cutting fluid, change S1 to S4 on positions 9 and 10 of the code: Ordering example:

E314K035S4N00F1

# 3/2 SOLENOID VALVES

## OPTIONS AND ACCESSORIES

Connector with integrated electrical indication and protection or cable of 2m (see page 103)

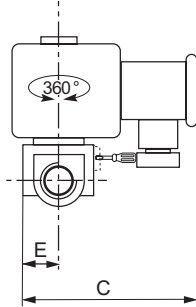
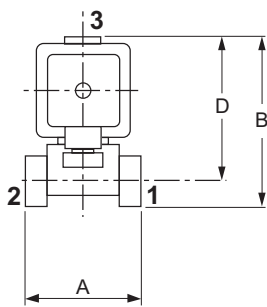
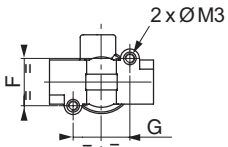


Replacement coils (see page 104)



## DIMENSIONS

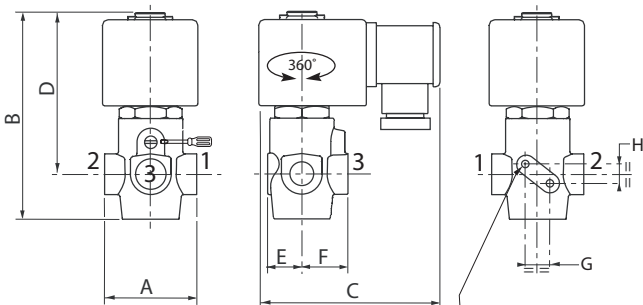
### 3/2 Solenoid valves, series 356



➔ flow direction

code	pipe size	A	B	C	D	E	F	G	➔
<b>3/2 NC</b>									
SCG356B001VMS									
SCG356B002VMS	1/8	33	53	59	46	15	15	18	2➔1
SCG356B004VMS									
SCG356B053VMS									
SCG356B466VMS	1/4	40	57	72	48	15	21	18	2➔1
SCG356B470VMS									
<b>3/2 NO</b>									
SCG356B006VMS	1/8	33	53	59	46	15	15	18	3➔1

### 3/2 Solenoid valves, series 370

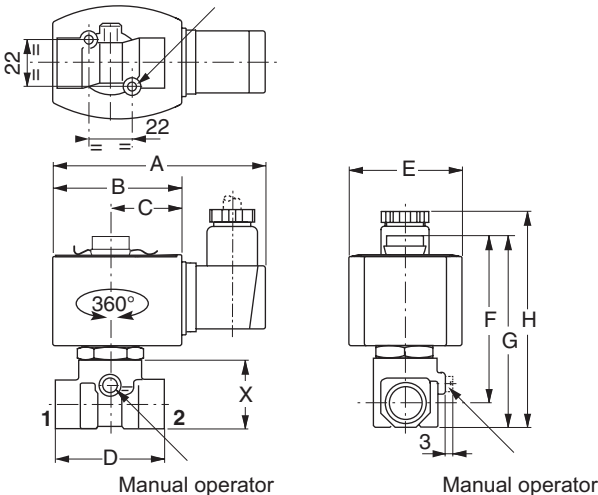


2 mounting holes M4 dia., depth 7 mm

code	A	B	C	D	E	F	G	H	➔
<b>3/2 NC</b>									
SCE370A002	43	97	71	76	15,5	21,5	11,2	9,4	2➔1
SCE370A017									
SCE370A017MS	43	97	86	76	15,5	21,5	11,2	9,4	2➔1
SCHTE370A017									

### 3/2 Solenoid valves, series 314

2 mounting holes M5 dia., depth 6 mm.



Manual operator

Manual operator

➔ flow direction

code	A	B	C	D	E	F	G	H	X	➔
E314K035S1N00										2➔1
E314K035S1N01										-
E314K008S1V00	97	59	34	40	50	73	82	96	30	-
E314K054S1N00										3➔1
E314K054S1N01										-
E314K068S1V00										2➔1

# 3/2-5/2-5/3 SPOOL VALVES

551 series  
threaded G 1/4  
integral pilots

solenoid air operated  
or with Namur interface



Fluids	air or inert gas, filtered, lubricated or not
Operating pressure	2 to 10 bar or 2 to 8 bar (CNOMO pilot versions)
Pilot pressure	internal piloting or 2 to 10 bar (external piloting)
Ambient temperature	-25°C to +60°C
Flow (Qv at 6 bar) (ANR)	860 l/min (700 l/min for Namur versions)
Body	black anodised aluminium
Internal parts	zamak, stainless steel, POM (polyacetal), aluminium
End plates	PA (polyamide), glass-fibre reinforced
Sealings	NBR (nitrile) + PUR (polyurethane)
Standard voltages DC (=)	24V-48V
AC (-)	24V-48V-115V-230V/50Hz

- Non breathing design, protecting the actuator from ingress of the atmosphere
- Wide temperature range for harsh environments (-25°C to +60°C)
- Reliability: long service life, 30 million cycles
- Can be attached to supply rail for fast pneumatic installation
- Compact dimensions for optimum integration with the actuators

## YOUR SELECTION

integral pilot versions for valve piloting	code (1)	power		(M)	connector	standard voltages (V)					
		~ VA	= W			AC (-) / 50Hz				DC (=)	
						24	48	115	230	24	48
<b>3/2 NC - solenoid air operated - spring return (monostable function)</b>											
	SCG551A005MS	3,5	3	●	size 22 (2)	✓				✓	✓
<b>5/2 - solenoid air operated - spring return (monostable function)</b>											
	SCG551A017MS	3,5	3	●	size 22 (2)	✓	✓	✓	✓	✓	✓
<b>5/2 - solenoid air operated - solenoid air return (bistable)</b>											
	SCG551A018MS	3,5	3	●	size 22 (2)	✓	✓	✓	✓	✓	✓
<b>5/3 - solenoid air operated - pressure held W1</b>											
	SCG551A067MS	3,5	3	●	size 22 (2)					✓	✓

(M) Manual operator ● : with maintained manual operator  
 (1) When ordering, please specify in addition to the code: the type of current, voltage / frequency  
 (2) DIN 43650, 11 mm, industry standard B

Namur integral pilot versions for valve piloting	code (1)	power		(M)	connector	standard voltages (V)					
		~ VA	= W			AC (-) / 50Hz				DC (=)	
						24	48	115	230	24	48
<b>3/2 NC - 5/2 - solenoid air operated - spring return (monostable function)*</b>											
	SCG551A001MS	3,5	3	●	size 22 (2)	✓	✓	✓	✓	✓	✓
	SCG551A001					×				✓	
<b>3/2 NC - 5/2 - solenoid air operated - solenoid air return (bistable)</b>											
	SCG551A002MS	3,5	3	●	size 22 (2)	✓	✓	✓	✓	✓	✓

(M) Manual operator ● : with maintained manual operator  
 (1) When ordering, please specify in addition to the code: the type of current, voltage / frequency  
 (2) DIN 43650, 11 mm, industry standard B

\* pilot air operated, spring return

G551A101

www.asconumatics.eu

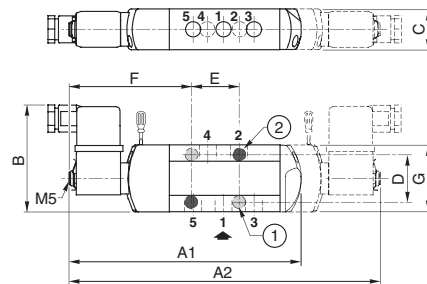
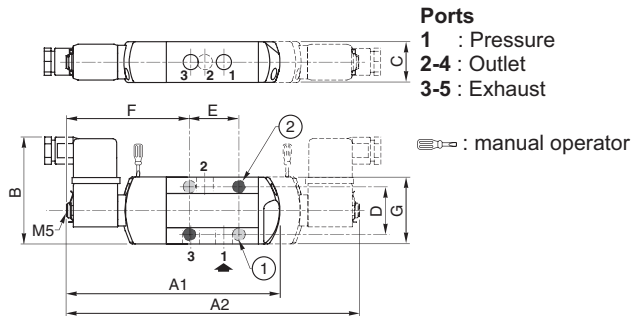


# SPOOL VALVES

## DIMENSIONS

### 3/2 NC spool valves - solenoid air operated integrated pilots

### 5/2 - 5/3 spool valves - solenoid air operated integrated pilots



code	A1	B	C	D	E	F	G
SCG551A005MS	145	72	27,5	32	33	83,5	45

code	dimensions (mm)							
	A1/017	A2/018/067	B	C	D	E	F	G
SCG551A017/018/067MS	157	210	72	27,5	32	32	82,5	45

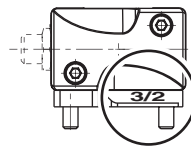
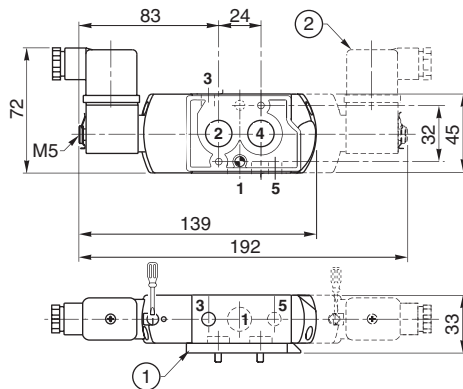
2 mounting holes:

- ① 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm) (series 551)
- ② 6,5 mm dia. (Spotfacing: 11 mm dia., depth 6 mm) (series 552-553)

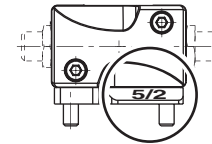
### 3/2 NC - 5/2 Namur spool valves - solenoid air operated

**Ports**  
**1** : Pressure  
**2-4** : Outlet  
**3-5** : Exhaust

- ① Interface plate
  - ② bistable function
- ☞ : manual operator



**3/2 NC**  
 adapt the plate 3/2 under the spool valve



**5/2**  
 adapt the plate 5/2 under the spool valve

## OPTIONS AND ACCESSORIES

Stainless steel exhaust protector

G 1/4 - code : **34600419**



Batch of 2 exhaust reducers G 1/8

code : **88100344**



Mounting brackets (see page 68-70)



replacement coils (see page 104)





# AIR CYLINDERS

**short stroke cylinders**  
single acting / double acting  
Series 441



pages 25-26 **1**


**compact cylinders, standardised to ISO 21287**  
compatibility for assembly  
with ISO 15552 mountings  
double acting - Series 449



pages 27-28 **2-3**

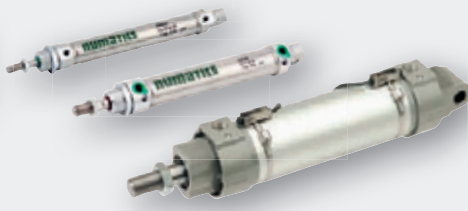
**cylinders with profiled barrel / tie rods**  
**standardised to ISO 15552**  
double acting  
Series 453-450

profiled barreltie rods



pages 29-39 **4-5**

**standardised round cylinders**  
**ISO 6431/ISO 6432/AFNOR NFE 49030**  
double acting  
Series 435 / 438 - ISOCLAIR type



pages 40-43 **6-7**

## YOUR SELECTION

YOUR SELECTION																												
standards																												
ISO 15552	ISO 6431	ISO 6432 / AFNOR NFE 49030	ISO 21287	Ø cylinder (mm)												max. stroke (mm)	detection		cushioning		construction			visual	series	page		
				8	12	16	20	25	32	40	50	63	80	100	125		160	200	yes	no	elastic	adjustable pneumatic	cylindrical				profiled barrel	tie rods
<b>single acting</b>																												
						●	●	●	●	●	●	●	●	●				25	●					●	<b>1</b>	441	25	
<b>double acting</b>																												
						●	●	●	●	●	●	●	●	●				100	●				●			<b>1</b>	441	25
●(1)				●				●	●	●	●	●	●	●	●			400	●	●			●			<b>2</b>	449	27
●											●	●	●	●	●			1000	●		●		●			<b>4</b>	453	29
●												●	●	●	●	●	●	1000	●		●			●		<b>5</b>	450	30-32
				●			●	●	●									160	●				●			<b>6</b>	435	40
				●			●	●										160	●		●	●						438
			●								●	●	●					500	●	●	●	●				<b>7</b>	438	41

(1) Compatible with ISO 15552 (compact cylinders, 449 series)

# SHORT STROKE CYLINDERS

## 441 series

SINGLE AND DOUBLE ACTING

Ø 8 to 80 mm

equipped for magnetic position detectors

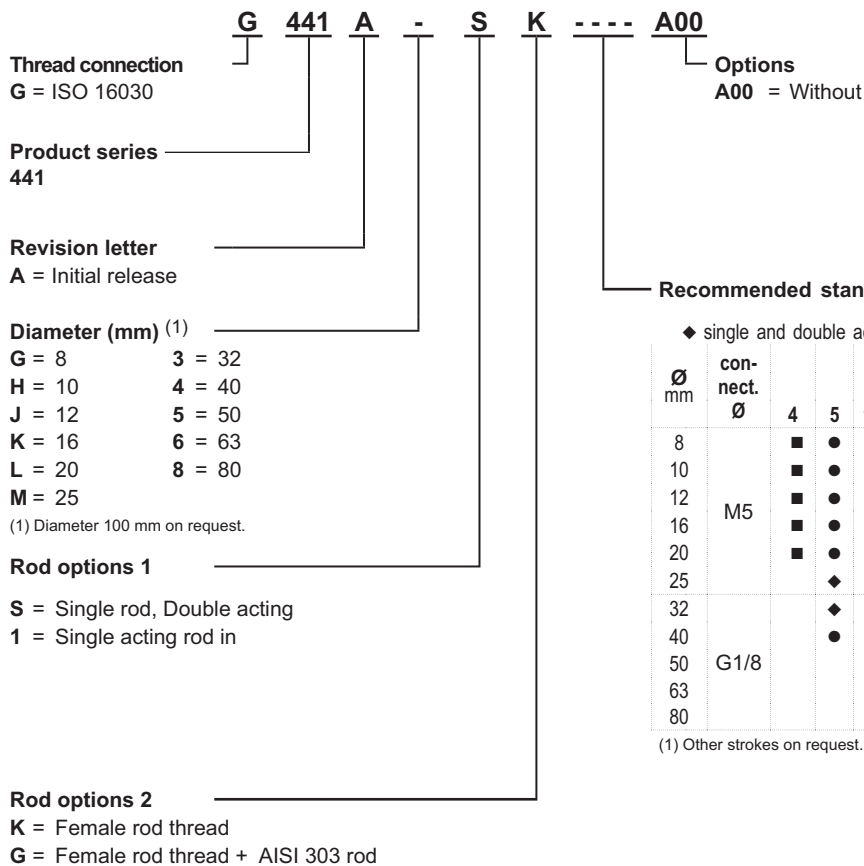


Fluids	air or neutral gas, filtered, lubricated or not
Operating pressure	max. 10 bar
Temperature	-20°C to +70°C
Barrel	light alloy
Rod	stainless steel or chrome-plated
Piston seals	PUR (polyurethane)
Cushioning	not cushioned
Connection	M5 (Ø 8 - 25 mm)
	G1/8 (Ø 32 - 80 mm)

- Reduced dimensions
- Adapted to suit flange-mounted applications
- Ease of assembly: mounting at front or rear with screws (smooth or threaded holes)

### YOUR SELECTION

#### 15-DIGIT PRODUCT CODE



#### Recommended standard strokes (mm) <sup>(1)</sup>

Ø mm	con-nect. Ø	◆ single and double acting		■ single acting								● double acting		max. stroke	
		4	5	10	15	20	25	30	40	50	60	80	100		
8	M5	■	●	◆	●	●	●								30
10		■	●	◆	●	●	●								30
12		■	●	◆	●	●	●	●							40
16		■	●	◆	●	●	●	●	●						40
20		■	●	◆	●	●	●	●	●	●					60
25			◆	◆	●	●	◆	●	●	●				60	
32	G1/8		◆	◆	●	●	◆	●	●	●	●	●		100	
40			●	◆	●	●	◆	●	●	●	●	●	●	120	
50				◆	●	●	◆	●	●	●	●	●	●	150	
63				◆	●	●	◆	●	●	●	●	●	●	150	
80				●	●	●	◆	●	●	●	●	●	●	150	

(1) Other strokes on request.

### OPTIONS AND ACCESSORIES

Position detectors  
(see page 44)



Flow regulators  
(see page 99)



Other strokes  
Other diameters  
(100 mm)

Hollow through rod  
version



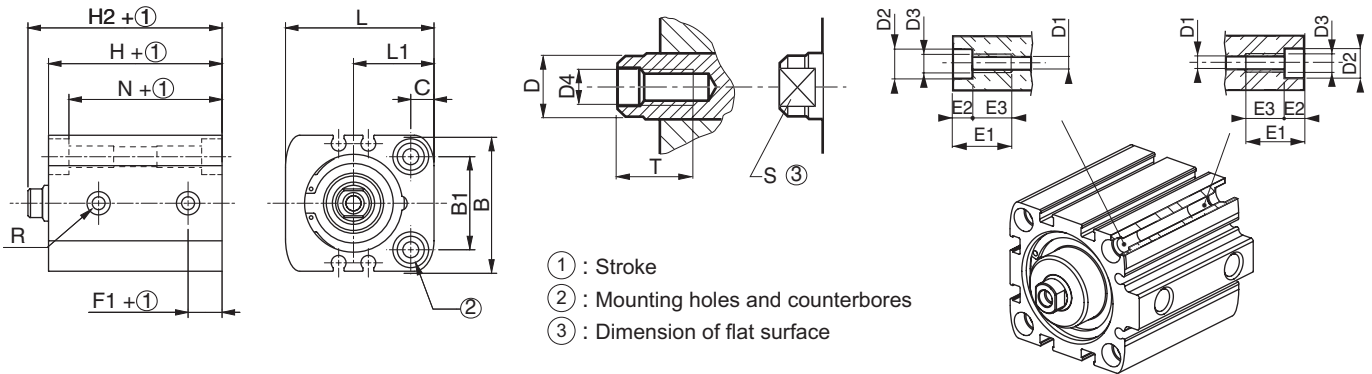
# SHORT STROKE CYLINDERS - 441 SERIES

## DIMENSIONS

Ø 8 to 25 mm single and double acting

details cylinder rod Ø 8 to 80 mm

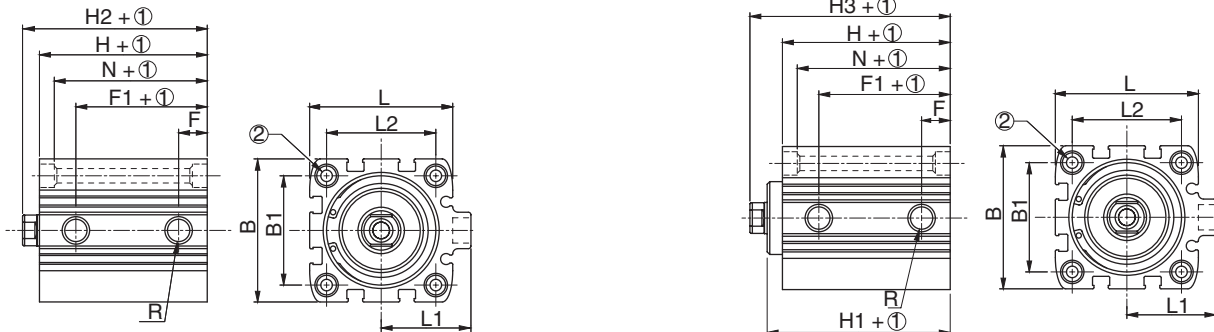
mounting holes



- ① : Stroke
- ② : Mounting holes and counterbores
- ③ : Dimension of flat surface

Ø 32 to 80 mm single acting

Ø 32 to 80 mm double acting



Ø mm	B	B1	C	D	D1	D2	D3	D4	D5	E1	E2	E3	F	F1	H	H1	H2	H3	L	L1	L2	N	R	S	T
8	20	11	4,5	4	3,4	6	M4	M2,5	-	12	3,4	8,6	5	14	23	-	24	-	24	15	-	19,6	M5	-	3,5
10	21	12	4,5	4	3,4	6	M4	M2,5	-	12	3,4	8,6	5	15	24	-	25	-	25,5	15	-	20,6	M5	-	3,5
12	23	13	4,5	4	3,4	6	M4	M2,5	-	12	3,4	8,6	5	16	24	-	25	-	27,5	16,5	-	20,6	M5	-	3,5
16	28	18	5,5	7,8	4,5	8	M5	M4	-	15	4,6	10,4	6	18	32	-	36,5	-	31,5	17,5	-	27,4	M5	6	8
20	32	20	6,5	9,8	5,5	10	M6	M5	-	18	5,7	12,3	8	20	32	-	36,5	-	37,5	21,5	-	26,3	M5	8	11
25	38	26	6,5	9,8	5,5	10	M6	M5	-	18	5,7	12,3	9,5	24,5	38,5	-	44	-	41,5	22,5	-	33,8	M5	8	11
32	45	32	-	11,8	5,5	10	M6	M6	26	18	5,7	12,3	9,5	22	39,5	44,5	45	50,5	48	31	36	33,8	G1/8	10	13
40	55	42	-	11,8	5,5	10	M6	M6	28	18	5,7	12,3	11	25,5	39,5	45,5	46	52	55	34,5	42	33,8	G1/8	10	13
50	65	50	-	15,8	6,6	11	M8	M8	34	20	6,8	13,2	11	25,5	39,5	45,5	47	53	65	41,5	50	32,7	G1/8	13	12
63	80	62	-	15,8	9	15	M10	M8	38,5	25	9	16	11	27,3	42	50	48,5	57,5	80	49	62	33	G1/8	13	14
80	100	82	-	19,8	9	15	M10	M10	44	25	9	16	12,5	29,3	46	56	54	64	100	59	82	37	G1/8	17	16

# COMPACT CYLINDERS

## 449 series

DOUBLE ACTING, Ø 20 to 100 mm  
compatible with ISO 21287  
equipped for magnetic position detectors

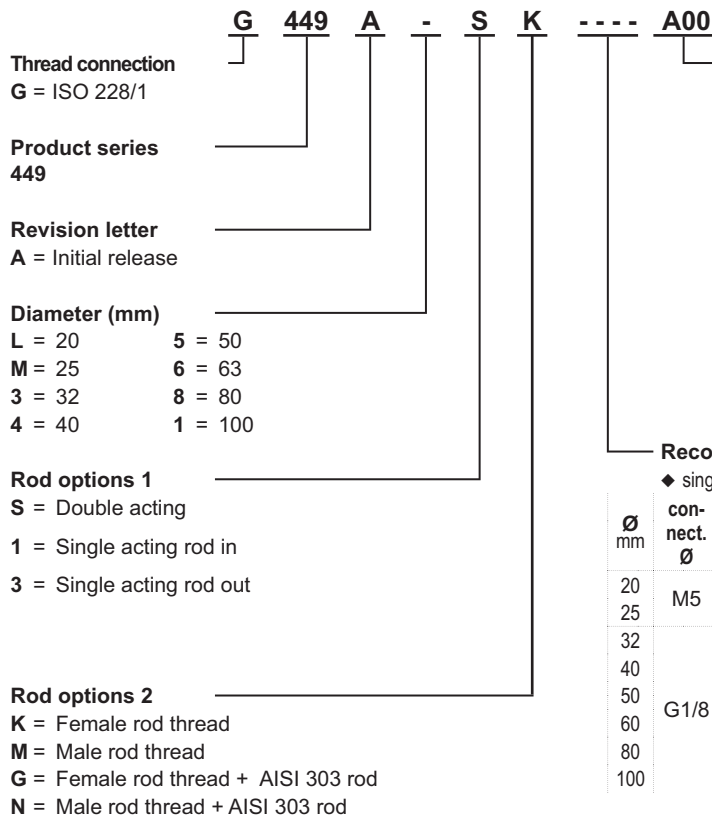


Fluid	air or neutral gas, filtered, lubricated or not
Operating pressure	max. 10 bar
Temperature	-20°C to +70°C
Max. allowable speed	0,5 m/s
Barrel	anodised aluminium alloy
Rod	Ø20-25: stainless steel, Ø32-100: chrome plated steel
Piston seals	PUR (polyurethane)
Cushioning	elastic
Standardisation	compatibility for assembly with standardised mountings Ø20-25: ISO 21287 Ø32-100: ISO 15552
Connection	M5 (Ø 20 - 25 mm) G1/8 (Ø 32 - 100 mm)

- Compact size: saves up to 65% in relation to an ISO cylinder
- Profiled square barrel for flush-mounted position detectors
- Screwed ends
- Uses the same mountings as ISO cylinders

### YOUR SELECTION

#### 15-DIGIT PRODUCT CODE



#### Options

- A00** = Without
- MT4** = Non fixed centre trunnion (MT4 axis perpendicular to the ports)<sup>(1)</sup>
- MS4** = Non fixed centre trunnion (MT4 axis parallel to the ports)<sup>(1)</sup>

(1) For fixed supplied centre trunnion, consult our Dynamic Product Modeling Tool on [www.asconumatics.eu](http://www.asconumatics.eu) and indicate XV dimension.

#### Recommended standard strokes (mm) <sup>(1)</sup>

Ø mm	connect. Ø	◆ single and double acting      ● double acting								max. stroke
		5	10	15	20	25	50	80	100	
20	M5	◆	◆	◆	●	●	●			60
25		◆	◆	◆	◆	●	●	●		60
32	G1/8	◆	◆	◆	◆	◆	●	●	●	400
40		◆	◆	◆	◆	◆	●	●	●	400
50		◆	◆	◆	◆	◆	●	●	●	400
60		◆	◆	◆	◆	◆	●	●	●	400
80		◆	◆	◆	◆	◆	●	●	●	400
100		◆	◆	◆	◆	◆	●	●	●	400

(1) Other strokes on request.

### OPTIONS AND ACCESSORIES

Standardised mountings  
(see page 36)



Position detectors  
(see page 44)



Flow regulators  
(see page 99)



Other strokes  
Other diameters

Versions with hollow  
through rod, threaded end  
of the rod ...

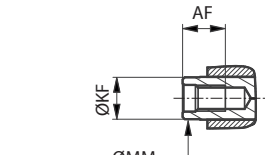


# COMPACT CYLINDERS - 449 SERIES

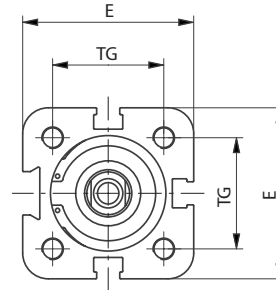
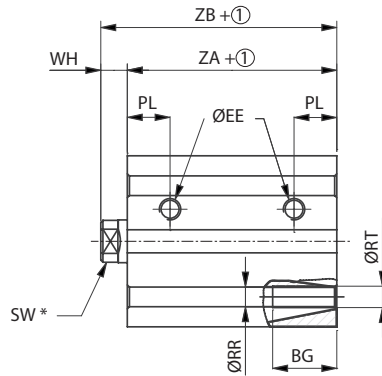
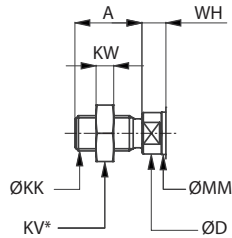
## DIMENSIONS

### Single-Rod type cylinder Ø 20-25 mm

tapped rod end



threaded rod end

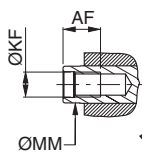


① Stroke

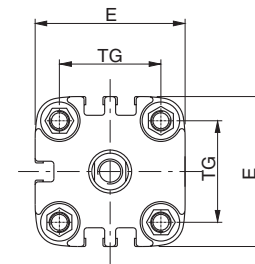
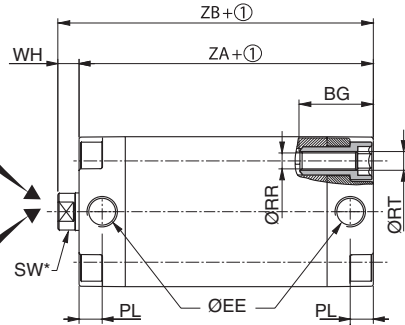
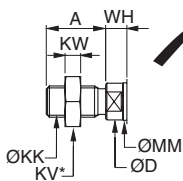
\* Width across flats

### Single-Rod type cylinder Ø 32-100 mm

tapped rod end



threaded rod end



① Stroke

\* Width across flats

Ø	A	AF	BG	ØD	E	EE	ØKF	ØKK	KV	KW	ØMM	PL	ØRR	ØRT	SW	TG	WH	ZA	ZB
20	16	10	15	9,8	36	M5	M6	M8x1,25	13	4	10	10	4,5	M5	8	22	6	37	43
25	16	10	15	9,8	40	M5	M6	M8x1,25	13	4	10	10	4,5	M5	8	26	6	39	45
32	19	12	23,5	11,8	48	G 1/8	M8	M10x1,25	16	5	12	7,5	7,0	M6	10	32,5	7	44	51
40	19	12	23,5	11,8	54	G 1/8	M8	M10x1,25	16	5	12	7,5	5,1	M6	10	38	7	45	52
50	22	16	27,5	15,8	66	G 1/8	M10	M12x1,25	18	6	16	7,5	6,7	M8	13	46,5	8	45	53
63	22	16	27,5	15,8	78	G 1/8	M10	M12x1,25	18	6	16	7,5	6,7	M8	13	56,5	8	49	57
80	28	20	28,5	19,8	96	G 1/8	M12	M16x1,50	24	8	20	8,5	8,5	M10	16	72	10	54	64
100	28	20	28,5	24,8	115	G 1/8	M12	M16x1,50	24	8	25	10	8,5	M10	21	89	10	67	77

# CYLINDERS WITH PROFILED BARREL AND TIE RODS

DOUBLE ACTING, Ø 32 to 100 mm (453 series)  
Ø 32 to 200 mm (450 series)

**ISO 15552**

equipped for magnetic position detectors  
**GUIDING UNITS**



Fluid	air or neutral gas, filtered, lubricated or not
Operating pressure	10 bar
Allowable temperature	-20°C to +70°C (contact us if this limit is exceeded)
Max. allowable speed	2 m/s
Barrel	treated aluminium alloy
Rod	hard chrome plated steel
Piston seals	PUR (polyurethane)
Cushioning	adjustable pneumatic
Standardisation	ISO 15552 - AFNOR NF ISO 15552 - DIN ISO 15552 (replace ISO 6431 - AFNOR NFE 49003 VDMA 24562)
Connection	G1/8 (Ø 32mm) - G1/4 (Ø40 - 50mm) G3/8 (Ø63 - 80mm) - G1/2 (Ø 100mm)

- Square shaped barrel with "T"-shape grooves for detectors
- Link between front and rear covers by tie rods
- Effective and precise pneumatic cushioning
- Rod guided and self-lubricating cylinder
- Various options for all types of environments: Rod locking device, aggressive environments, high temperatures...

## YOUR SELECTION

### 15-DIGIT PRODUCT CODE

**G 453 A - S K - - - A00**

**Thread connection**  
G = ISO 228/1

**Product series**  
453

**Revision letter**  
A = Initial release

**Diameter (mm)**

- 3 = 32
- 4 = 40
- 5 = 50
- 6 = 63
- 8 = 80
- 1 = 100

**Rod options 1**

- S = Standard
- 2 = Through rod
- 3 = AISI 303 stainless steel rod <sup>(1)</sup>
- 4 = AISI 303 stainless steel through rod

<sup>(1)</sup> 316L stainless steel rod, contact us.

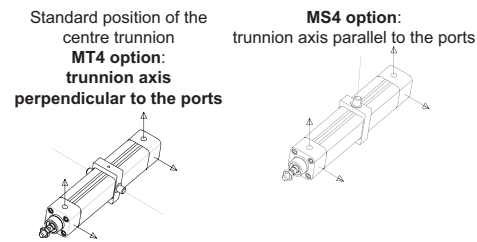
**Rod options 2**

- K = Standard
- 5 = Dynamic rod-locking device - Ø 40 to 100 mm

**Options**

- A00 = Without
- MT4 = Non fixed centre trunnion (MT4 axis perpendicular to the ports)<sup>(1)</sup>
- MS4 = Non fixed centre trunnion (MT4 axis parallel to the ports)<sup>(1)</sup>
- UCG = Plain bearing "U" guiding unit
- HCG = Plain bearing "H" guiding unit
- HBG = Ball bearing "H" guiding unit

<sup>(1)</sup> For fixed supplied centre trunnion, consult our Dynamic Product Modeling Tool on [www.asconumatics.eu](http://www.asconumatics.eu) and indicate XV dimension.



**Recommended standard strokes (mm) <sup>(1)</sup>**

Ø mm	connect. Ø	25	50	80	100	125	160	200	250	320	400	500	630	700	800	900	1000	1500	max. stroke	
32	G1/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
40	G1/4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
50	G1/4	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
63	G3/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
80	G3/8	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000
100	G1/2	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	●	2000

<sup>(1)</sup> Other strokes on request.

»» Fast delivery service

## OPTIONS AND ACCESSORIES

Standardised mountings (see page 36)



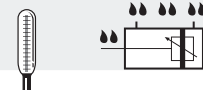
Position detectors and mounting kits (see page 44)



Flow regulators (see page 99)




High temperature versions, aggressive environments...



# ISO 15552 CYLINDERS WITH TIE RODS - 450 series

## YOUR SELECTION


Ø mm	con- nect. Ø mm	stroke mm	Tie rods 		Plain bearing "U" Guiding unit	Plain bearing "H" Guiding unit	Ball bearing "H" Guiding unit
			reference	code			
32	G1/8	25	PES 32 T A 25 R DM	45000710	-	-	-
		50	PES 32 T A 50 R DM	45000711	010714	010762	010653
		80	PES 32 T A 80 R DM	45001095	010832	010844	010856
		100	PES 32 T A 100 R DM	45000712	010715	010763	010654
		125	PES 32 T A 125 R DM	45001113	010833	010845	010857
		160	PES 32 T A 160 R DM	45000713	010716	010764	010655
		200	PES 32 T A 200 R DM	45000714	010717	010765	010656
		250	PES 32 T A 250 R DM	45000715	010718	010766	010657
		to be defined	PES 32 T A ... R DM	45050766... <sup>(1)</sup>	-	-	-
40	G1/4	25	PES 40 T A 25 R DM	45000716	-	-	-
		50	PES 40 T A 50 R DM	45000717	010722	010770	010661
		80	PES 40 T A 80 R DM	45001096	010834	010846	010858
		100	PES 40 T A 100 R DM	45000718	010723	010771	010662
		125	PES 40 T A 125 R DM	45001114	010835	010847	010859
		160	PES 40 T A 160 R DM	45000719	010724	010772	010663
		200	PES 40 T A 200 R DM	45000720	010725	010773	010664
		250	PES 40 T A 250 R DM	45000721	010726	010774	010665
		320	PES 40 T A 320 R DM	45000722	010727	010775	010666
		400	PES 40 T A 400 R DM	45000723	010728	010776	010667
to be defined	PES 40 T A ... R DM	45050767... <sup>(1)</sup>	-	-	-		
50	G1/4	25	PES 50 T A 25 R DM	45000724	-	-	-
		50	PES 50 T A 50 R DM	45000725	010730	010778	010669
		80	PES 50 T A 80 R DM	45001097	010836	010848	010860
		100	PES 50 T A 100 R DM	45000726	010731	010779	010670
		125	PES 50 T A 125 R DM	45001115	010837	010849	010861
		160	PES 50 T A 160 R DM	45000727	010732	010780	010671
		200	PES 50 T A 200 R DM	45000728	010733	010781	010672
		250	PES 50 T A 250 R DM	45000729	010734	010782	010673
		320	PES 50 T A 320 R DM	45000730	010735	010783	010674
		400	PES 50 T A 400 R DM	45000731	010736	010784	010675
		500	PES 50 T A 500 R DM	45000732	010737	010785	010676
to be defined	PES 50 T A ... R DM	45050768... <sup>(1)</sup>	-	-	-		
63	G3/8	25	PES 63 T A 25 R DM	45000734	-	-	-
		50	PES 63 T A 50 R DM	45000735	010738	010786	010677
		80	PES 63 T A 80 R DM	45001098	010838	010850	010862
		100	PES 63 T A 100 R DM	45000736	010739	010787	010678
		125	PES 63 T A 125 R DM	45001116	010839	010851	010863
		160	PES 63 T A 160 R DM	45000737	010740	010788	010679
		200	PES 63 T A 200 R DM	45000738	010741	010789	010680
		250	PES 63 T A 250 R DM	45000739	010742	010790	010681
		320	PES 63 T A 320 R DM	45000740	010743	010791	010682
		400	PES 63 T A 400 R DM	45000741	010744	010792	010683
		500	PES 63 T A 500 R DM	45000742	010745	010793	010684
		630	PES 63 T A 630 R DM	45000743	-	-	-
		to be defined	PES 63 T A ... R DM	45050769... <sup>(1)</sup>	-	-	-

(1) Indicate stroke (in mm)

»» Fast delivery service

# ISO 15552 CYLINDERS WITH TIE RODS - 450 series

## YOUR SELECTION

Ø mm	con- nect. Ø mm	stroke mm	Tie rods 		Plain bearing "U" Guiding unit	Plain bearing "H" Guiding unit	Ball bearing "H" Guiding unit
			reference	code			
80	G3/8	25	PES 80 T A 25 R DM	45000744	-	-	-
		50	PES 80 T A 50 R DM	45000745	010746	010794	010685
		80	PES 80 T A 80 R DM	45001099	010840	010852	010864
		100	PES 80 T A 100 R DM	45000746	010747	010795	010686
		125	PES 80 T A 125 R DM	45001117	010841	010853	010865
		160	PES 80 T A 160 R DM	45000747	010748	010796	010687
		200	PES 80 T A 200 R DM	45000748	010749	010797	010688
		250	PES 80 T A 250 R DM	45000749	010750	010798	010689
		320	PES 80 T A 320 R DM	45000750	010751	010799	010690
		400	PES 80 T A 400 R DM	45000751	010752	010800	010691
		500	PES 80 T A 500 R DM	45000752	010753	010801	010692
		630	PES 80 T A 630 R DM	45000753	-	-	-
to be defined	PES 80 T A ... R DM	45050770... <sup>(1)</sup>	-	-	-		
100	G1/2	50	PES 100 T A 50 R DM	45001192	010754	010802	010693
		80	PES 100 T A 80 R DM	45001193	010842	010854	010866
		100	PES 100 T A 100 R DM	45001194	010755	010803	010694
		125	PES 100 T A 125 R DM	45001195	010843	010855	010867
		160	PES 100 T A 160 R DM	45001196	010756	010804	010695
		200	PES 100 T A 200 R DM	45001197	010757	010805	010696
		250	PES 100 T A 250 R DM	45001198	010758	010806	010697
		320	PES 100 T A 320 R DM	45001199	010759	010807	010698
		400	PES 100 T A 400 R DM	45001200	010760	010808	010699
		500	PES 100 T A 500 R DM	45001201	010761	010809	010700
		630	PES 100 T A 630 R DM	45001202	-	-	-
		700	PES 100 T A 700 R DM	45001203	-	-	-
		800	PES 100 T A 800 R DM	45001204	-	-	-
		900	PES 100 T A 900 R DM	45001205	-	-	-
		1000	PES 100 T A 1000 R DM	45001206	-	-	-
to be defined	PES 100 T A ... R DM	45051014... <sup>(1)</sup>	-	-	-		
125	G1/2	50	PES 125 T A 50 R DM	45001208	-	-	-
		80	PES 125 T A 80 R DM	45001209	-	-	-
		100	PES 125 T A 100 R DM	45001210	-	-	-
		125	PES 125 T A 125 R DM	45001211	-	-	-
		160	PES 125 T A 160 R DM	45001212	-	-	-
		200	PES 125 T A 200 R DM	45001213	-	-	-
		250	PES 125 T A 250 R DM	45001214	-	-	-
		320	PES 125 T A 320 R DM	45001215	-	-	-
		400	PES 125 T A 400 R DM	45001216	-	-	-
		500	PES 125 T A 500 R DM	45001217	-	-	-
		630	PES 125 T A 630 R DM	45001218	-	-	-
		700	PES 125 T A 700 R DM	45001219	-	-	-
		800	PES 125 T A 800 R DM	45001220	-	-	-
		900	PES 125 T A 900 R DM	45001221	-	-	-
		1000	PES 125 T A 1000 R DM	45001222	-	-	-
to be defined	PES 125 T A ... R DM	45051015... <sup>(1)</sup>	-	-	-		

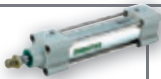
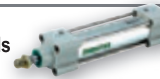
(1) Indicate stroke (in mm)

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# ISO 15552 CYLINDERS WITH TIE RODS - 450 series

## YOUR SELECTION

Ø mm	con- nect. Ø mm	stroke mm	Tie rods 		Ø mm	con- nect. Ø mm	stroke mm	Tie rods 	
			reference	code				reference	code
160	G3/4	50	PES 160 T A 50 R-DM	<b>45001223</b>	200	G3/4	50	PES 200 T A 50 R-DM	<b>45001238</b>
		80	PES 160 T A 80 R-DM	<b>45001224</b>			80	PES 200 T A 80 R-DM	<b>45001239</b>
		100	PES 160 T A 100 R-DM	<b>45001225</b>			100	PES 200 T A 100 R-DM	<b>45001240</b>
		125	PES 160 T A 125 R-DM	<b>45001226</b>			125	PES 200 T A 125 R-DM	<b>45001241</b>
		160	PES 160 T A 160 R-DM	<b>45001227</b>			160	PES 200 T A 160 R-DM	<b>45001242</b>
		200	PES 160 T A 200 R-DM	<b>45001228</b>			200	PES 200 T A 200 R-DM	<b>45001243</b>
		250	PES 160 T A 250 R-DM	<b>45001229</b>			250	PES 200 T A 250 R-DM	<b>45001244</b>
		320	PES 160 T A 320 R-DM	<b>45001230</b>			320	PES 200 T A 320 R-DM	<b>45001245</b>
		400	PES 160 T A 400 R-DM	<b>45001231</b>			400	PES 200 T A 400 R-DM	<b>45001246</b>
		500	PES 160 T A 500 R-DM	<b>45001232</b>			500	PES 200 T A 500 R-DM	<b>45001247</b>
		630	PES 160 T A 630 R-DM	<b>45001233</b>			630	PES 200 T A 630 R-DM	<b>45001248</b>
		700	PES 160 T A 700 R-DM	<b>45001234</b>			700	PES 200 T A 700 R-DM	<b>45001249</b>
		800	PES 160 T A 800 R-DM	<b>45001235</b>			800	PES 200 T A 800 R-DM	<b>45001250</b>
		900	PES 160 T A 900 R-DM	<b>45001236</b>			900	PES 200 T A 900 R-DM	<b>45001251</b>
		1000	PES 160 T A 1000 R-DM	<b>45001237</b>			1000	PES 200 T A 1000 R-DM	<b>45001252</b>
	to be defined	PES 160 T A ... R DM	<b>45051016...</b> <sup>(1)</sup>		to be defined	PES 200 T A ... R DM	<b>45051017...</b> <sup>(1)</sup>		

(1) Indicate stroke (in mm)

Ø mm	connect. Ø mm	stroke mm	Tie rods - through rod version 	
			reference	code
32	G1/8	300	PES 32 A RDM - T2	<b>45050784</b>
40	G1/4	400	PES 40 A RDM - T2	<b>45050785</b>
50	G1/4	500	PES 50 A RDM - T2	<b>45050786</b>
63	G3/8	500	PES 63 A RDM - T2	<b>45050787</b>
80	G3/8	600	PES 80 A RDM - T2	<b>45050788</b>
100	G1/2	600	PES 100 A RDM - T2	<b>45051022</b>
125	G1/2	600	PES 125 A RDM - T2	<b>45051023</b>
160	G3/4	600	PES 160 A RDM - T2	<b>45051024</b>
200	G3/4	600	PES 200 A RDM - T2	<b>45051025</b>

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## OPTIONS AND ACCESSORIES

Standardised mountings  
(see page 36)



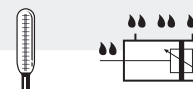
Position detectors  
and mounting kits  
(see page 44)



Flow regulators  
(see page 99)



High temperature versions,  
aggressive environments...

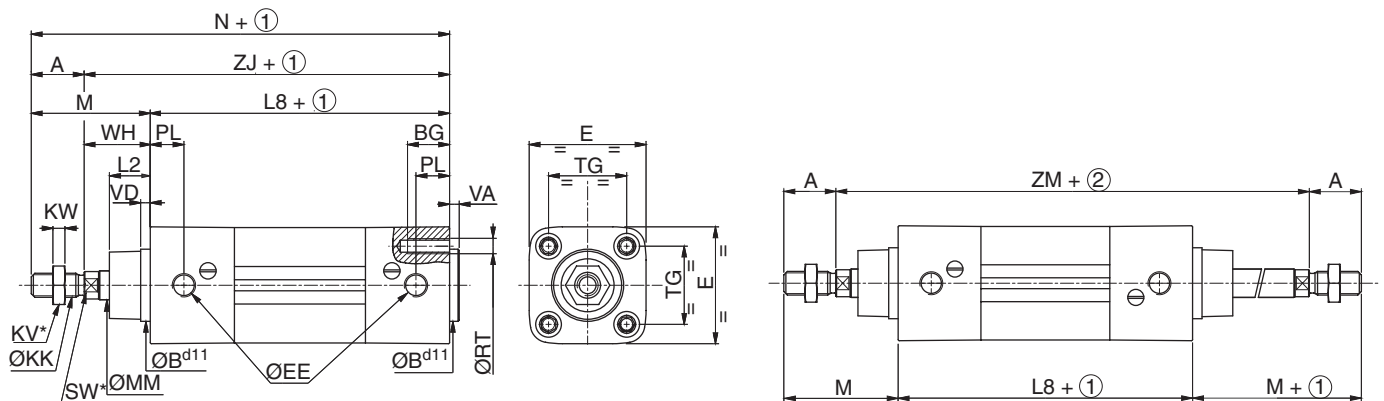


# ISO 1552 CYLINDERS - 453 / 450 series

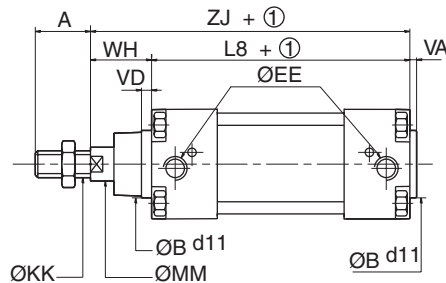
## DIMENSIONS

### Single-rod type cylinders - 453 series

### Through-rod type cylinders - 453 series



### Cylinders with tie rods - 450 series



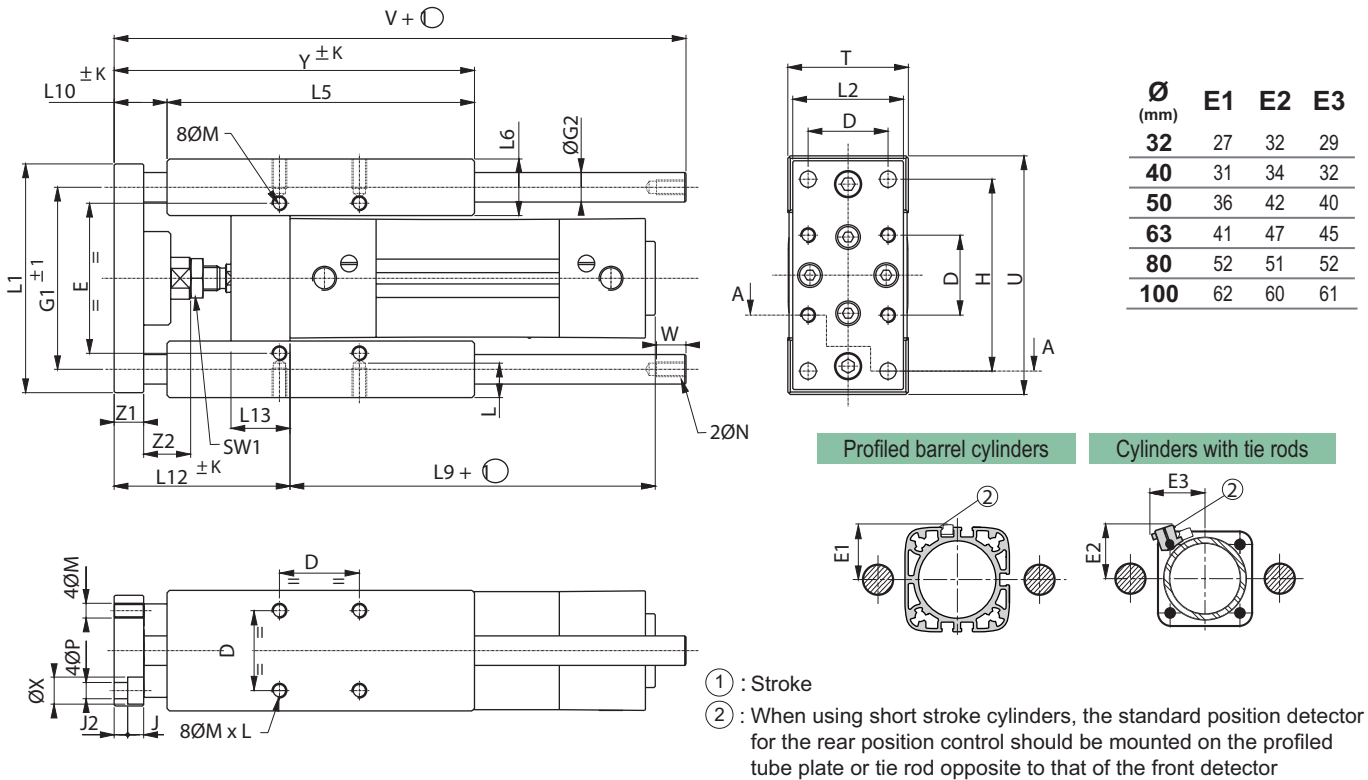
① Stroke

Ø mm	A	B	BG	E	EE	KK	KV	KW	L2	L8	M	MM	N	PL	RT	SW	TG	VA	VD	WH	ZJ	ZM
32	22	30	16	50	G1/8	M10 x 1,25	16	5	17	94	48	12	142	14	M6	10	32,5 <sup>±0,5</sup>	4	4	26	120	146
40	24	35	16	57,5	G1/4	M12 x 1,25	18	6	19	105	54	16	159	16	M6	13	38 <sup>±0,5</sup>	4	4	30	135	165
50	32	40	16	65	G1/4	M16 x 1,5	24	8	24	106	69	20	175	20	M8	17	46,5 <sup>±0,6</sup>	4	4	37	143	180
63	32	45	16	79	G3/8	M16 x 1,5	24	8	24	121	69	20	190	20	M8	17	56,5 <sup>±0,7</sup>	4	4	37	158	195
80	40	45	17	100	G3/8	M20 x 1,5	30	10	33	128	86	25	214	25	M10	22	72 <sup>±0,7</sup>	4	4	46	174	220
100	40	55	17	120	G1/2	M20 x 1,5	30	10	35,5	138	91	25	229	25	M10	22	89 <sup>±0,7</sup>	4	4	51	189	240
125	54	60	24	145	G1/2	M27x2	41	13,5	40	160	119	32	279	32	M12	27	110 <sup>±1,1</sup>	6	6	65	225	-
160	72	65	29,5	180	G3/4	M36x2	55	18	58	180	152	40	332	35,5	M16	36	140 <sup>±1,1</sup>	6	6	80	260	-
200	72	75	29,5	220	G3/4	M36x2	55	18	58	180	167	40	347	35	M16	36	175 <sup>±1,1</sup>	6	6	95	275	-

# ISO 15552 GUIDING UNITS

## DIMENSIONS

### “H” guiding unit with bearings (series 453 cylinder)



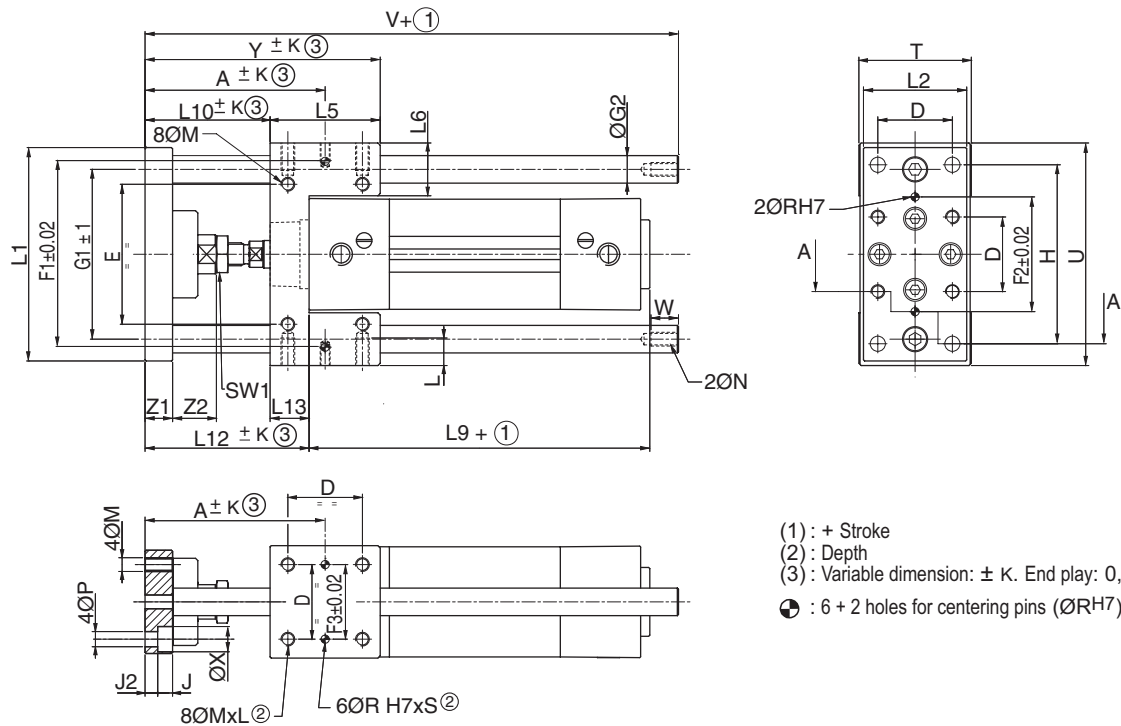
Ø mm	A	D	E	F1	F2	F3	G1	G2	H	J	K	L	L1	L2	L5	L6	L9
32	78,5	32,5	61	81	50	32,5	74	12	78	6,5	2,5	12	93	45	125	23	98
40	85	38	69	99	54	38	87	16	84	6,5	3	12	112	55	140	28	109
50	97	46,5	85	119	72	46,5	104	20	100	8,5	4	16	134	65	148	33	110
63	106	56,5	100	132	82	56,5	119	20	105	9	4	16	147	80	178	33	125
80	130	72	130	166	106	72	148	25	130	11	5	20	180	100	195	41	132
100	140,5	89	150	190	131	89	173	25	150	11	5	20	206	120	218	42	142

Ø mm	L10	L12	L13	M	N	P	R	S	SW1	T	U	V	W	X	Y	Z1
32	21,5	71,5	24	M6	M6	6,6	6	10	16	49	97	182	11	11	146,5	12
40	17	77	28	M6	M6	6,6	6	10	18	58	115	192	11	11	157	12
50	22,5	92,5	34	M8	M8	9	6	10	24	70	137	237	16	15	170,5	15
63	21	93	34	M8	M8	9	6	10	24	85	152	237	16	15	199	15
80	31	115	50	M10	M10	11	6	10	30	105	189	280	16	18	226	20
100	30,5	120,5	55	M10	M10	11	6	10	30	130	213	280	16	18	248,5	20

# ISO 1552 GUIDING UNITS

## DIMENSIONS

### "U" guiding unit with bearings (series 453 cylinder)



- (1) : + Stroke
- (2) : Depth
- (3) : Variable dimension:  $\pm K$ . End play: 0,1 mm
- ⊕ : 6 + 2 holes for centering pins ( $\text{ØRH7}$ )

Ø	A	D	E	F1	F2	F3	G1	G2	H	J	J2	K	L	L1	L2	L5	L6	L9	L10	L12
32	78,5	32,5	61	81	50	32,5	74	12	78	6,5	5,5	2,5	12	93	45	48	23	98	54,5	71,5
40	85	38	69	99	54	38	87	16	84	6,5	5,5	3	12	112	55	58	28,4	109	56	77
50	97	46,5	85	119	72	46,5	104	20	100	8,5	6,5	4	16	134	65	59	33,4	110	67,5	92,5
63	106	56,5	100	132	82	56,5	119	20	105	9	6	4	16	147	80	76	33,4	125	68	93
80	130	72	130	166	106	72	148	25	130	11	9	5	20	180	100	90	41,8	132	81	115
100	140,5	89	150	190	131	89	173	25	150	11	9	5	20	206	120	110	41,3	142	81,5	120,5

Ø	L13	M	N	P	R (H7)	S	SW1	T	U	V	W	X	Y	Z1	Z2
32	17	M6	M6	6,6	6	10	16	49	97	182	11	11	102,5	12	25
40	21	M6	M6	6,6	6	10	18	58	115	192	11	11	114	12	25
50	25	M8	M8	9	6	10	24	70	137	237	16	15	126,5	15	29
63	25	M8	M8	9	6	10	24	85	152	237	16	15	144	15	29
80	34	M10	M10	11	6	10	30	105	189	280	16	18	171	20	27
100	39	M10	M10	11	6	10	30	130	213	280	16	18	191,5	20	27

# ISO 15552 STANDARDISED MOUNTINGS

## YOUR SELECTION (MOUNTINGS supplied with mounting screws)

### Low feet MS1 (batch of 2 items)



Ø mm	steel plate	Ø mm	steel
32	43400163	32	43400307
40	43400164	40	43400308
50	43400165	50	43400309
63	43400166	63	43400310
80	43400167	80	43400311
100	43400168	100	-

### High foot MS3 (per unit)

### Cap, detachable clevis MP2



Ø mm	light alloy	cast iron + steel + bush
32	43400130	43400185
40	43400131	43400186
50	43400132	43400187
63	43400133	43400188
80	43400134	43400189
100	43400135	43400190
125	-	43400191

### Centre trunnion MT4 (cylinders with profiled barrel, 453 - 449 series)



Ø mm	delivered separately	Support for centre trunnion AT4
32	P493A3111000A00	43400207
40	P493A4111000A00	43400208
50	P493A5111000A00	43400208
63	P493A6111000A00	43400209
80	P493A8111000A00	43400209
100	P493A1111000A00	43400210

### Cap, detachable eye MP4



Ø mm	light alloy	cast iron + bush
32	43400125	43400171
40	43400126	43400172
50	43400127	43400173
63	43400128	43400174
80	43400129	43400175
100	43400161	43400176
125	-	43400177

### Centre trunnion MT4 (cylinders with tie rods, 450 series)



Ø mm	cast iron, supplied fully assembled side XV (page 45)
32	410548
40	410549
50	410550
63	410551
80	410552
100	410553

### Angular clevis bracket AB3



Ø mm	light alloy	cast iron + bush
32	43400383	43400110
40	43400384	43400111
50	43400385	43400112
63	43400386	43400113
80	43400387	43400114
100	43400388	43400115

### Female rod clevis (ISO 8140 - RP 102P) AP2



Ø mm	453 / 450 series steel	449 series steel
32	43400016	43400016
40	43400017	43400016
50	43400018	43400017
63	43400018	43400017
80	43400019	43400018
100	43400019	43400018
125	43400020	
160	43400021	
200	43400021	

### Cap clevis for spherical eye or clevis bracket AB6



Ø mm	forged steel
32	43400363
40	43400364
50	43400365
63	43400366
80	43400367
100	43400368

### Spherical rod end (ISO 8139 - RP 103P) AP6



Ø mm	453 / 450 series steel	449 series steel
32	43400001	43400001
40	43400002	43400001
50	43400003	43400002
63	43400003	43400002
80	43400004	43400003
100	43400004	43400003
125	43400005	
160	43400006	
200	43400006	

### Cap eye with spherical bearing MP6



Ø mm	forged steel
32	43400372
40	43400373
50	43400374
63	43400375
80	43400376
100	43400377

### Alignment compensator



Ø mm	light alloy	Ø mm	cast iron + bush
32	43400242	63	43400244
40	43400243	80	43400245
50	43400244	100	43400245

### Rectangular front or rear flange MF1 - MF2



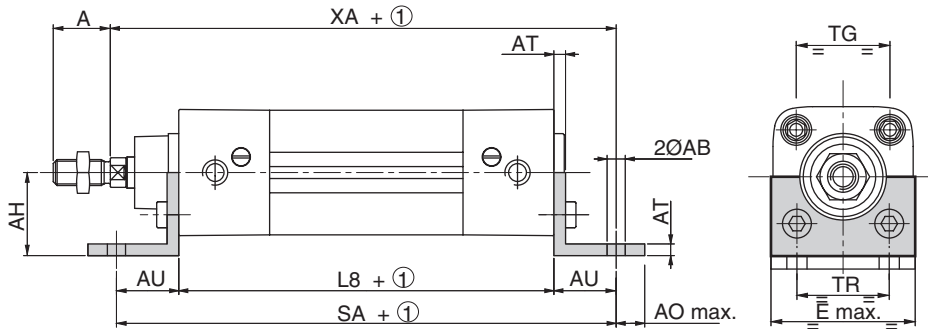
Ø mm	steel
32	43400119
40	43400120
50	43400121
63	43400122
80	43400123
100	43400124

# ISO 15552 STANDARDISED MOUNTINGS

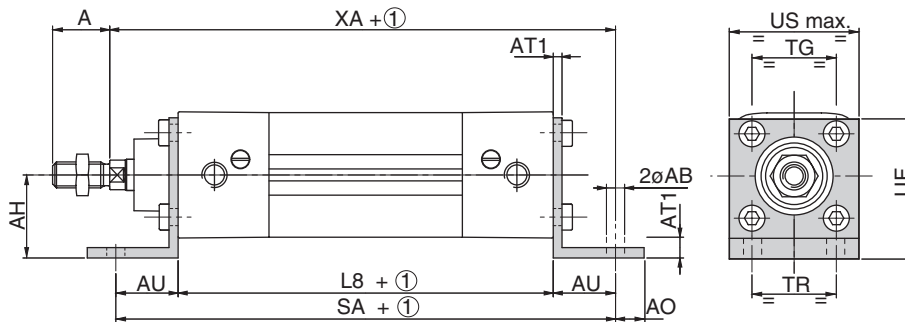
## DIMENSIONS

### Square feet

#### Low foot MS1



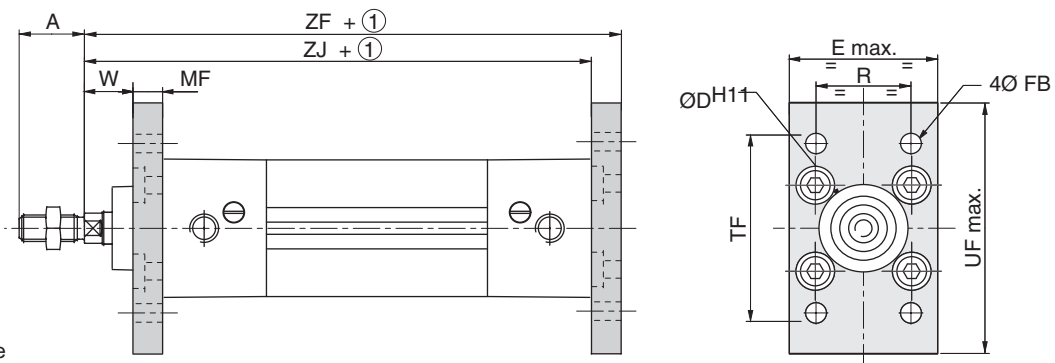
#### High foot MS3



① : Stroke

∅ (mm)	∅AB	A	AO	AH	AT	AT1	AU	E	TR	TG	UF	US	L8	SA	XA
32	7	22	11	32	4	8	24	50	32	32,5	54	50	94	142	144
40	10	24	15	36	4	8	28	58	36	38	62	58	105	161	163
50	10	32	15	45	5	10	32	70	45	46,5	77	70	106	170	175
63	10	32	15	50	5	10	32	85	50	56,5	87	85	121	185	190
80	12	40	20	63	6	12	41	105	63	72	110	105	128	210	215
100	14,5	40	25	71	6	12	41	130	75	89	130	130	138	220	230
125	16,5	54	25	90	8	16	45	157	90	110	161	157	160	250	270
160	18,5	72	25	115	10	-	60	195	115	140	-	-	180	300	320
200	24	72	35	135	12	-	70	238	135	175	-	-	180	320	345

### Rectangular front or rear flange MF1 - MF2



① : Stroke

∅ (mm)	A	∅D	E	∅FB	MF	R	TF	UF	W	ZJ	ZF
32	22	30	50	7	10	32	64	86	16	120	130
40	24	35	58	9	10	36	72	96	20	135	145
50	32	40	70	9	12	45	90	115	25	143	155
63	32	45	85	9	12	50	100	130	25	158	170
80	40	45	105	12	16	63	126	165	30	174	190
100	40	55	130	14	16	75	150	187	35	189	205
125	54	60	157	16	20	90	180	224	45	225	245
160	72	65	195	18	20	115	230	280	60	260	280
200	72	75	238	22	25	135	270	320	70	275	300

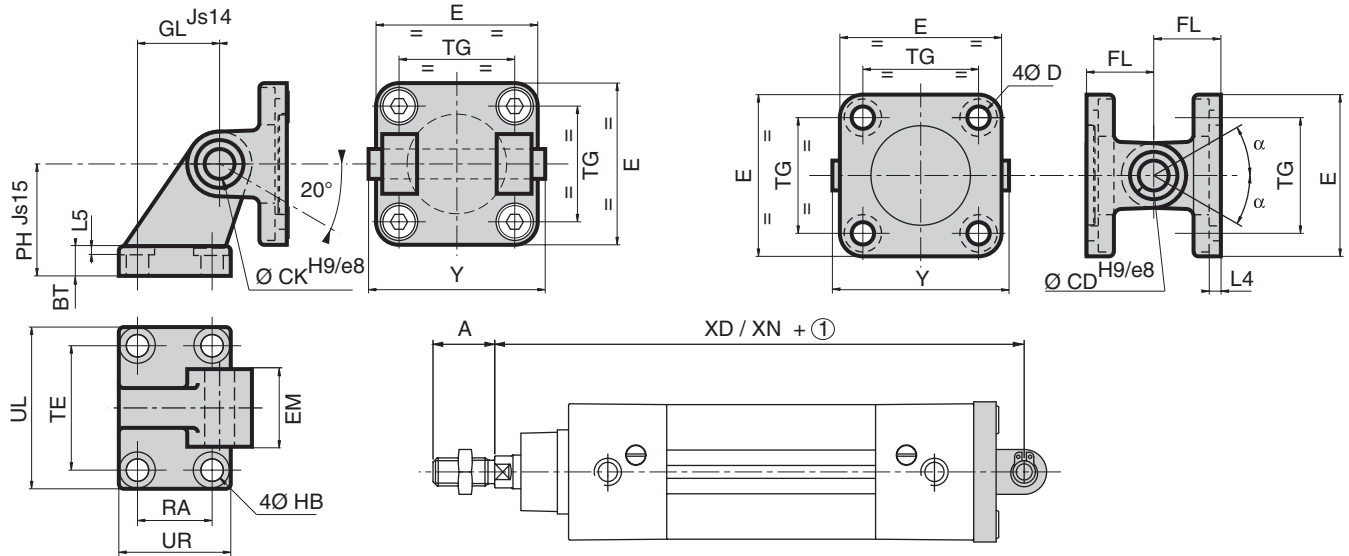
# ISO 15552 STANDARDISED MOUNTINGS

## DIMENSIONS

### Trunnion

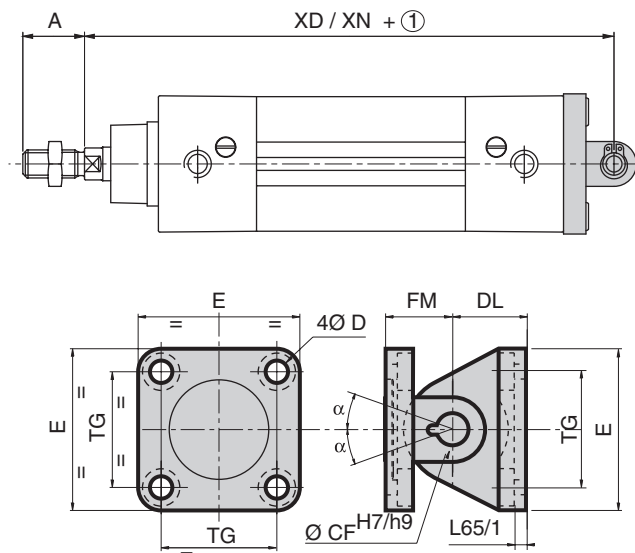
Complete trunnion mounting with angular clevis, MP2 + AB3

Straight complete trunnion mounting, MP2 + MP4



Ø (mm)	BT	CB	CD CK	D	EM	EW	FL	GL	HB	L4	L5	MR max.	PH	RA	TE	TG	UB	UL max.	UR max.	Y	α
32	8	26	10	6,6	26	26	22	21	6,6	5,5	1,6	11	32	18	38	32,5	45	51	31	56	45°
40	10	28	12	6,6	28	28	25	24	6,6	5,5	1,6	13	36	22	41	38	52	54	35	63	50°
50	12	32	12	9	32	32	27	33	9	6,5	1,6	13	45	30	50	46,5	60	65	45	71	40°
63	12	40	16	9	40	40	32	37	9	6,5	1,6	17	50	35	52	56,5	70	67	50	81	55°
80	14	50	16	11	50	50	36	47	11	10	2,5	17	63	40	66	72	90	86	60	101	45°
100	15	60	20	11	60	60	41	55	11	10	2,5	21	71	50	76	89	110	96	70	128	35°
125	20	70	25	14	70	70	50	70	14	10	3,2	26	90	60	94	110	130	124	90	149	30°
160	25	90	30	14	90	90	55	97	14	10	4	31	115	88	118	140	170	156	126	183	30°
200	30	90	30	18	90	90	60	105	18	11	4	31	135	90	122	175	170	162	130	183	30°

Straight complete trunnion mounting, spherical bearing AB6 + MP6



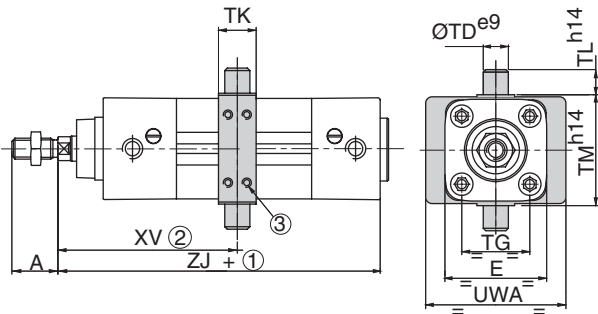
Ø (mm)	ØCF	D	DL FM	E max.	L65/1	TG	α
32	10	6,6	22	50	5,5	32,5	40°
40	12	6,6	25	58	5,5	38	45°
50	16	9	27	70	6,5	46,5	35°
63	16	9	32	85	6,5	56,5	50°
80	20	11	36	105	10	72	40°
100	20	11	41	130	10	89	30°
125	30	14	50	157	10	110	25°
160	-	-	-	-	-	-	-
200	-	-	-	-	-	-	-

# ISO 15552 STANDARDISED MOUNTINGS

## DIMENSIONS

### Trunnion mountings MT4

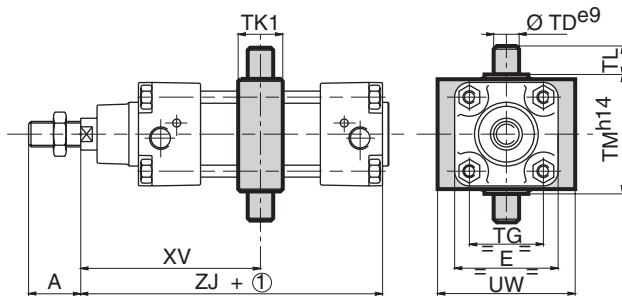
#### Cylinders with profiled barrel - 453 series



without detectors

Ø mm	XV	
	min.	max.
32	71,5	75 + ①
40	81	84 + ①
50	89,5	91 + ①
63	93,5	102,5 + ①
80	106,5	114,5 + ①
100	116,5	124 + ①

#### Cylinders with tie rods - 450 series



without detectors

Ø mm	XV	
	min.	max.
32	72	74,5 + ①
40	83	82 + ①
50	89,5	91 + ①
63	93,5	102,5 + ①
80	106,5	114,5 + ①
100	114	126,5 + ①
125	135	155,5 + ①
160	159,5	181 + ①
200	173,5	197 + ①

XV Dimension must be specified when ordering.

① : Stroke

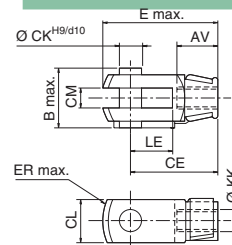
② Except when XV dimension is specified when ordering, the position of the trunnion may be adjusted along the unit. Consequently, the centre trunnion is not screwed on and must be adjusted after delivery

③ 8 locking screws.

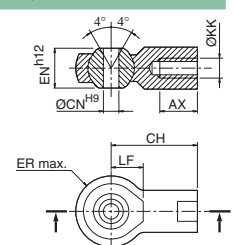
### Female rod clevis and spherical rod end

Ø mm	AV AX	B	CE	CH	CK	CL	CM	CN	E	EN	ER	LE	LF	KK
32	20	26	40	43	10	20	10 <sup>+0,5</sup>	10	56	14	14	20	15	M10 X 1,25
40	22	32	48	50	12	24	12 <sup>+0,15</sup>	12	67	16	16	24	17	M12 X 1,25
50	28	41	64	64	16	32	16 <sup>+0,15</sup>	16	89	21	21	32	22	M16 X 1,5
63	28	41	64	64	16	32	16 <sup>+0,15</sup>	16	89	21	21	32	22	M16 X 1,5
80	33	48	80	77	20	40	20 <sup>+0,6</sup>	20	112	25	25	40	26	M20 X 1,5
100	33	48	80	77	20	40	20 <sup>+0,15</sup>	20	112	25	25	40	26	M20 X 1,5

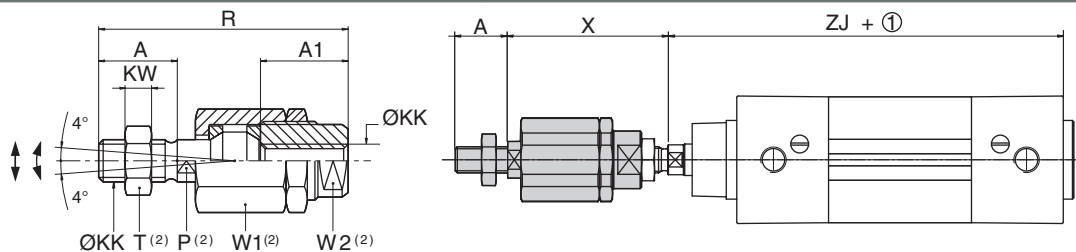
#### Female rod clevis AP2



#### Spherical rod end AP6



### Alignment compensator



① Stroke

(2) : Width across flats

Ø (mm)	A	A1	P(2)	ØKK	KW	R	T(2)	W1(2)	W2(2)	X min.	radial compensation (mm)
32	20	23	12	M10x1,25	6	71	17	30	19	56	0,7
40	24	23	12	M12x1,25	7	75	19	30	19	57	0,7
50	32	32	20	M16x1,5	8	103	24	41	27	79	1
63	32	32	20	M16x1,5	8	103	24	41	27	79	1
80	40	39	20	M20x1,5	10	119	30	41	27	89	1
100	40	39	20	M20x1,5	10	119	30	41	27	89	1
125	54	40	24	M27x2	13,5	147	41	Ø62	54	107	1

• Radial compensation: 0,5 to 1 mm (see table)  
• Spherical angular compensation: 4°

NOTE: The compensator is preset with an axial clearance of 0,05 to 0,1 - Do not reset.



# ROUND CYLINDERS

## ISOCLAIR type

DOUBLE ACTING Ø 12 to 25 mm

DOUBLE ACTING Ø 32 to 63 mm

compatible with ISO-CETOP-AFNOR  
equipped for magnetic position detectors



Fluid	air or neutral gas, filtered, lubricated or not
Operating pressure	max. 10 bar
Temperature	-20°C to +70°C (Ø 12 to 25 mm) / -10°C to +70°C (Ø 32 to 63 mm)
Barrel	stainless steel (Ø 12 to 25 mm) - aluminium alloy (Ø 32 to 63 mm)
Rod	stainless steel (Ø 12 to 25 mm) - chrome plated steel (Ø 32 to 63 mm)
Piston seals	PUR (polyurethane)
Cushioning	refer to selection table
Standardisation	Ø 12 to 25 mm: ISO 6432 - 8140 - 8139 - AFNOR NF E 49-030 CETOP RP 52 P - RP 102 P - RP 103 P
	Ø 32 to 63 mm: ISO 6431 - 8140 - 8139 CETOP RP 43 P - RP 102 P - RP 103 P
Connection	M5 (Ø 12 to 16 mm) - G1/8 (Ø 20 to 32 mm) G1/4 (Ø 40-50 mm) - G3/8 (Ø 63 mm)

- Mountings integrated in the front and MP4 cap in the rear cover for trunnion mounting
- Compact mounting using threaded cylinder at the front or rear cover

### YOUR SELECTION

Ø mm	connect. Ø mm	stroke mm	Single rod		Through rod	
			reference	code	reference	code
<b>Double acting - without cushioning</b>						
12	M5	25	C12 AS 25-DM	<b>43500301</b>	-	-
		50	C12 AS 50-DM	<b>43500302</b>	-	-
		80	C12 AS 80-DM	<b>43500303</b>	-	-
		100	C12 AS 100-DM	<b>43500304</b>	-	-
		to be defined	C12 AS ...-DM	<b>43550182...</b> <sup>(1)</sup>	-	-
16	M5	25	C16 AS 25-DM	<b>43500305</b>	C16 AS 25-DM-T2	<b>435500280025</b>
		50	C16 AS 50-DM	<b>43500306</b>	C16 AS 50-DM-T2	<b>435500280050</b>
		80	C16 AS 80-DM	<b>43500307</b>	C16 AS 80-DM-T2	<b>435500280080</b>
		100	C16 AS 100-DM	<b>43500308</b>	C16 AS 100-DM-T2	<b>435500280100</b>
		to be defined	C16 AS ...-DM	<b>43550183...</b> <sup>(1)</sup>	C16 AS ...-DM-T2	<b>43550028...</b> <sup>(1)</sup>
20	G1/8	25	C20 AS 25-DM	<b>43500309</b>	C20 AS 25-DM-T2	<b>435500290025</b>
		50	C20 AS 50-DM	<b>43500310</b>	C20 AS 50-DM-T2	<b>435500290050</b>
		80	C20 AS 80-DM	<b>43500311</b>	C20 AS 80-DM-T2	<b>435500290080</b>
		100	C20 AS 100-DM	<b>43500312</b>	C20 AS 100-DM-T2	<b>435500290100</b>
		to be defined	C20 AS ...-DM	<b>43550184...</b> <sup>(1)</sup>	C20 AS ...-DM-T2	<b>43550029...</b> <sup>(1)</sup>
25	G1/8	25	C25 AS 25-DM	<b>43500313</b>	C25 AS 25-DM-T2	<b>435500300025</b>
		50	C25 AS 50-DM	<b>43500314</b>	C25 AS 50-DM-T2	<b>435500300050</b>
		80	C25 AS 80-DM	<b>43500315</b>	C25 AS 80-DM-T2	<b>435500300080</b>
		100	C25 AS 100-DM	<b>43500316</b>	C25 AS 100-DM-T2	<b>435500300100</b>
		160	C25 AS 160-DM	<b>43500317</b>	C25 AS 160-DM-T2	<b>435500300160</b>
to be defined	C25 AS ...-DM	<b>43550185...</b> <sup>(1)</sup>	C25 AS ...-DM-T2	<b>43550030...</b> <sup>(1)</sup>		
<b>Double acting - with adjustable pneumatic cushioning</b>						
20	G1/8	25	C20 A 25-DM	<b>43500423</b>	C20 A 25-DM	<b>435507200025</b>
		50	C20 A 50-DM	<b>43500424</b>	C20 A 50-DM	<b>435507200050</b>
		80	C20 A 80-DM	<b>43500425</b>	C20 A 80-DM	<b>435507200080</b>
		100	C20 A 100-DM	<b>43500426</b>	C20 A 100-DM	<b>435507200100</b>
		to be defined	C20 A ...-DM	<b>43550451...</b> <sup>(1)</sup>	C20 A ...-DM	<b>43550720...</b> <sup>(1)</sup>
25	G1/8	25	C25 A 25-DM	<b>43500432</b>	C25 A 25-DM	<b>435507210025</b>
		50	C25 A 50-DM	<b>43500433</b>	C25 A 50-DM	<b>435507210050</b>
		80	C25 A 80-DM	<b>43500434</b>	C25 A 80-DM	<b>435507210080</b>
		100	C25 A 100-DM	<b>43500435</b>	C25 A 100-DM	<b>435507210100</b>
		160	C25 A 100-DM	<b>43500436</b>	C25 A 160-DM	<b>435507210160</b>
to be defined	C25 A ...-DM	<b>43550452...</b> <sup>(1)</sup>	C25 A ...-DM	<b>43550721...</b> <sup>(1)</sup>		

(1) Indicate stroke (in mm)

»» Fast delivery service

# ROUND CYLINDERS - ISOCLAIR type

## YOUR SELECTION

Ø mm	connect. Ø mm	stroke mm	Cylinder with elastic cushioning		Cylinder with adjustable pneumatic cushioning	
			reference	code	reference	code
<b>Single-rod type cylinders</b>						
32	G1/8	25	CIS 32 NA 25-DM	<b>43800181</b>	-	-
		50	CIS 32 NA 50-DM	<b>43800085</b>	CIS 32 A 50-DM	<b>43800141</b>
		100	CIS 32 NA 100-DM	<b>43800086</b>	CIS 32 A 100-DM	<b>43800142</b>
		160	CIS 32 NA 160-DM	<b>43800087</b>	CIS 32 A 160-DM	<b>43800143</b>
		200	CIS 32 NA 200-DM	<b>43800088</b>	CIS 32 A 200-DM	<b>43800144</b>
		250	CIS 32 NA 250-DM	<b>43800089</b>	CIS 32 A 250-DM	<b>43800145</b>
		to be defined	CIS 32 NA ...-DM	<b>43850013...</b> <sup>(1)</sup>	CIS 32 A ...-DM	<b>43850021...</b> <sup>(1)</sup>
40	G1/4	25	CIS 40 NA 25-DM	<b>43800182</b>	-	-
		50	CIS 40 NA 50-DM	<b>43800090</b>	CIS 40 A 50-DM	<b>43800146</b>
		100	CIS 40 NA 100-DM	<b>43800091</b>	CIS 40 A 100-DM	<b>43800147</b>
		160	CIS 40 NA 160-DM	<b>43800092</b>	CIS 40 A 160-DM	<b>43800148</b>
		200	CIS 40 NA 200-DM	<b>43800093</b>	CIS 40 A 200-DM	<b>43800149</b>
		250	CIS 40 NA 250-DM	<b>43800094</b>	CIS 40 A 250-DM	<b>43800150</b>
		320	CIS 40 NA 320-DM	<b>43800095</b>	CIS 40 A 320-DM	<b>43800151</b>
400	CIS 40 NA 400-DM	<b>43800096</b>	CIS 40 A 400-DM	<b>43800152</b>		
to be defined	CIS 40 NA ...-DM	<b>43850014...</b> <sup>(1)</sup>	CIS 40 A ...-DM	<b>43850022...</b> <sup>(1)</sup>		
50	G1/4	25	CIS 50 NA 25-DM	<b>43800183</b>	-	-
		50	CIS 50 NA 50-DM	<b>43800097</b>	CIS 50 A 50-DM	<b>43800153</b>
		100	CIS 50 NA 100-DM	<b>43800098</b>	CIS 50 A 100-DM	<b>43800154</b>
		160	CIS 50 NA 160-DM	<b>43800099</b>	CIS 50 A 160-DM	<b>43800155</b>
		200	CIS 50 NA 200-DM	<b>43800100</b>	CIS 50 A 200-DM	<b>43800156</b>
		250	CIS 50 NA 250-DM	<b>43800101</b>	CIS 50 A 250-DM	<b>43800157</b>
		320	CIS 50 NA 320-DM	<b>43800102</b>	CIS 50 A 320-DM	<b>43800158</b>
400	CIS 50 NA 400-DM	<b>43800103</b>	CIS 50 A 400-DM	<b>43800159</b>		
to be defined	CIS 50 NA ...-DM	<b>43850015...</b> <sup>(1)</sup>	CIS 50 A ...-DM	<b>43850023...</b> <sup>(1)</sup>		
63	G3/8	25	CIS 63 NA 25-DM	<b>43800184</b>	-	-
		50	CIS 63 NA 50-DM	<b>43800104</b>	CIS 63 A 50-DM	<b>43800153</b>
		100	CIS 63 NA 100-DM	<b>43800105</b>	CIS 63 A 100-DM	<b>43800154</b>
		160	CIS 63 NA 160-DM	<b>43800106</b>	CIS 63 A 160-DM	<b>43800155</b>
		200	CIS 63 NA 200-DM	<b>43800107</b>	CIS 63 A 200-DM	<b>43800156</b>
		250	CIS 63 NA 250-DM	<b>43800108</b>	CIS 63 A 250-DM	<b>43800157</b>
		320	CIS 63 NA 320-DM	<b>43800109</b>	CIS 63 A 320-DM	<b>43800158</b>
400	CIS 63 NA 400-DM	<b>43800110</b>	CIS 63 A 400-DM	<b>43800159</b>		
500	CIS 63 NA 500-DM	<b>43800111</b>	CIS 63 A 500-DM	<b>43800159</b>		
to be defined	CIS 63 NA ...-DM	<b>43850016...</b> <sup>(1)</sup>	CIS 63 A ...-DM	<b>43850024...</b> <sup>(1)</sup>		
<b>Through-rod type cylinders</b>						
32	G1/8	to be defined	CIS 32 NA ...-DM-T2	<b>43850043...</b> <sup>(1)</sup>	CIS 32 NA ...-DM-T2	<b>43850039...</b> <sup>(1)</sup>
40	G1/4		CIS 40 NA ...-DM-T2	<b>43850044...</b> <sup>(1)</sup>	CIS 40 NA ...-DM-T2	<b>43850040...</b> <sup>(1)</sup>
50	G1/4		CIS 50 NA ...-DM-T2	<b>43850045...</b> <sup>(1)</sup>	CIS 50 NA ...-DM-T2	<b>43850041...</b> <sup>(1)</sup>
63	G3/8		CIS 63 NA ...-DM-T2	<b>43850046...</b> <sup>(1)</sup>	CIS 63 NA ...-DM-T2	<b>43850042...</b> <sup>(1)</sup>

(1) Indicate stroke (in mm)

## OPTIONS AND ACCESSORIES

Standardised mountings  
(see page 43)



Position detectors  
and mounting kits  
(see page 44)



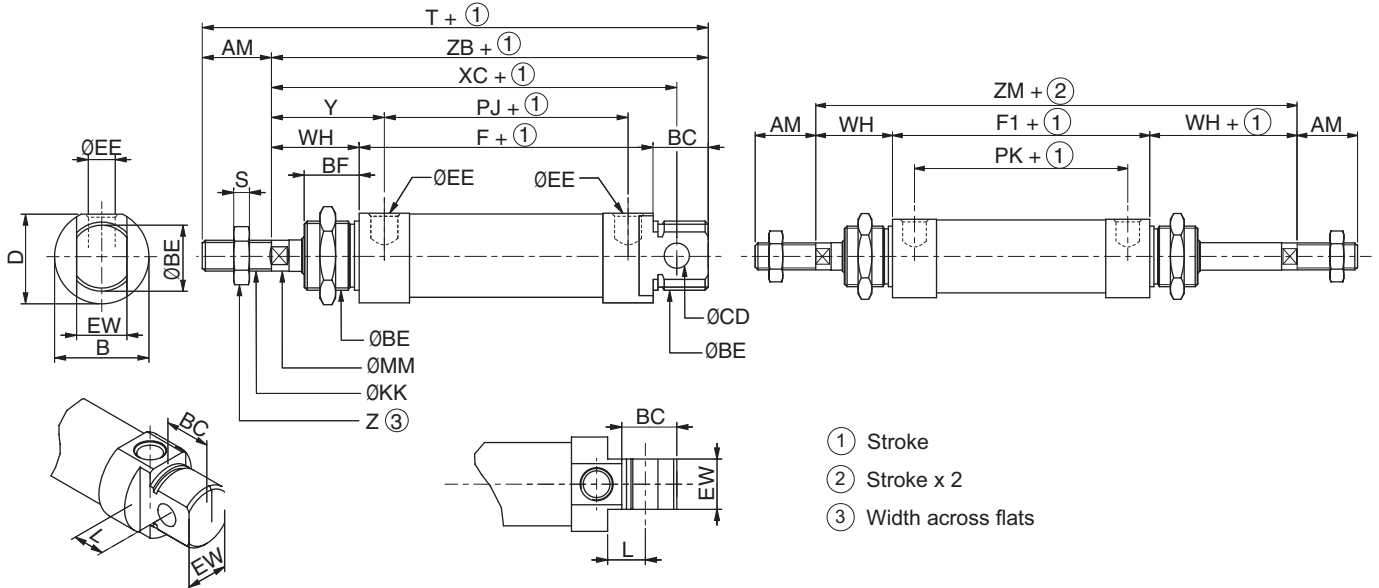
# ROUND CYLINDERS - ISOCLAIR type

## DIMENSIONS

### Cylinders Ø 8 to 25 mm (bare cylinder supplied with neck nut)

#### Single-rod type cylinders

#### Through-rod type cylinders

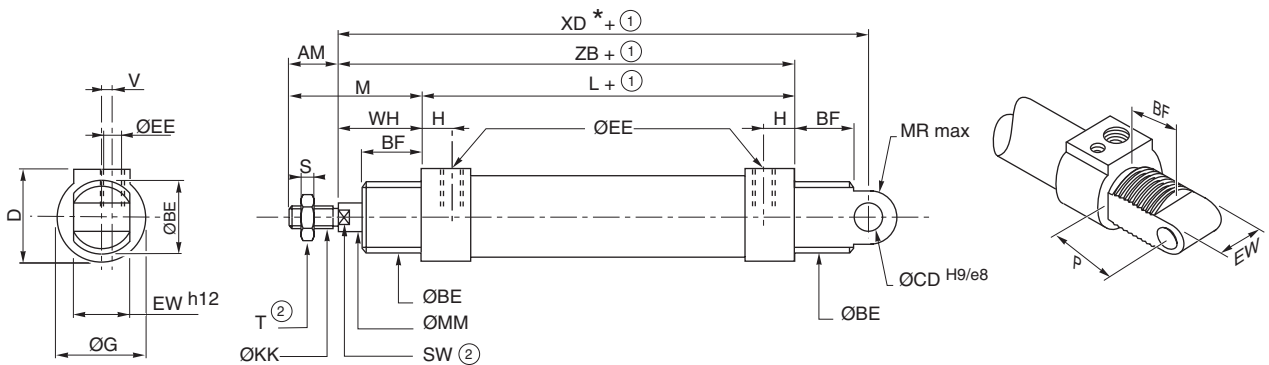


Ø	AM	B	BC	ØBE	BF	ØCD	D	ØEE	EW	F	F1	ØKK	L	MM	PJ	PK	S	T	WH	XC	Y
12	16	19	14	M16x1,5	14	6 H 11	18	M5	12 d 11	48,5	48,5	M6x1	9	6	34,5	34,5	3	100,3	22	75	29
16	16	19	14	M16x1,5	14	6 H 11	18	M5	12 d 11	55	55	M6x1	9	6	41,5	41,5	3	107	22	82	28,5
20	20	27	17,5	M22x1,5	17,5	8 H 11	25,4	G 1/8	16 d 11	63,5	63,5	M8x1,25	12	8	47,3	47,3	4	125	24	95	32
25	22	30	17,5	M22x1,5	17,5	8 H 11	28,5	G 1/8	16 d 11	68,5	68,5	M10x1,25	12	10	52,5	52,5	5	136	28	104	36

Ø	Z	ZB	ZM
12	10	84,5	82,5
16	10	91	99
20	13	105	111,5
25	17	114	124,5

NOTE:  
- The mountings are always delivered separately (see page 54)

### Cylinders Ø 32 to 63 mm (bare cylinder supplied without neck nut)



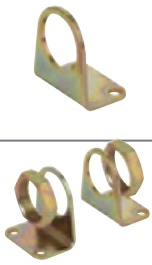
Ø mm	AM	BE	BF	CD	D	EE	EW	G	H	KK	L	M	MM	MR	P	S	SW	T	V	WH	XD	ZB
32	22	M 30 x 1,5	16	10	39	G 1/8	26	38	13,5	M10 x 1,25	92	49	12	11	24	5	10	16	3,5	27	143	119
40	24	M 36 x 1,5	19	12	46	G 1/4	28	45	16,5	M12 x 1,25	107	53	18	13	24	6	13	18	4,7	29	160	136
50	32	M 45 x 1,5	③	12	60	G 1/4	32	60	14	M16 x 1,50	110	67	18	13	25,5	8	16	24	5,2	35	170	145
63	32	M 45 x 1,5	23	16	75	G 3/8	40	75,5	17	M16 x 1,50	125	67	22	17	31	8	16	24	5,5	35	191	160

- ① Stroke
- ② Width across flats
- ③ 26,5 mm on front cover, 18,5 mm on rear cover
- (\*) +25 mm for single acting cylinders, stroke 50 mm

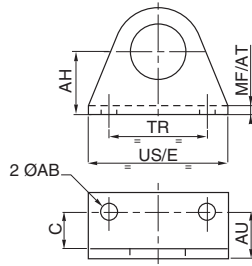
# ROUND CYLINDERS - ISOCLAIR type

## YOUR SELECTION (MOUNTINGS supplied with mounting screws)

### High foot MS3 (per unit) MS1 (set of 2 items)



Ø mm			
12-16	43900183	(MS3)	
20	43900184	(MS3)	
25	43900184	(MS3)	
32	43900199	(MS1)	
63	43900202	(MS1)	

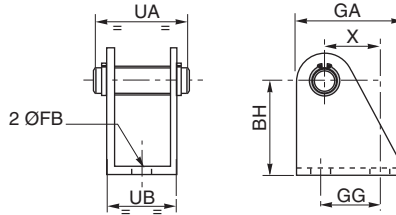


Ø mm	AB	AH	AU	C	MF AT	TR	US E
16	5,5	20	14	10	4	32	42
20	6,6	25	17	12	5	40	54
25	6,6	25	17	12	5	40	54
32	7	32	25	22	3	32	45
63	9	50	30	26	4	50	75

### Rear trunnion



Ø mm		
12-16	43900181	
20	43900182	
25	43900182	

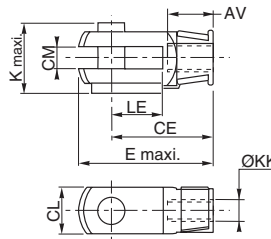


Ø mm	BH	FB	GA	GG	UA	UB	X
16	27	5,5	25	16	25	18	13,5
20	30	6,6	32	20	32	24	16
25	30	6,6	32	20	32	24	16

### Female rod clevis (ISO 8140 - RP 102P) AP2



Ø mm		
12-16	43900159	
20	43900161	
25	43400016	
32	43400016	
40	43400017	
50	43400018	
63	43400018	

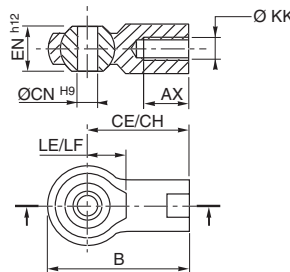


Ø mm	AV	CE	CM	E	K	KK	LE CL
16	12	24	6	33,5	16,5	M6	12
20	16	32	8	45	22	M8	16
25	20	40	10	56	26	M10	20
32	20	40	10	56	26	M10	20
40	22	48	12	67	32	M12	24
50	28	64	16	89	41	M16	32
63	28	64	16	89	41	M16	32

### Spherical rod end (ISO 8139 - RP 103P) AP6



Ø mm		
12-16	43900186	
20	43900187	
25	43400001	
32	43400001	
40	43400002	
50	43400003	
63	43400003	

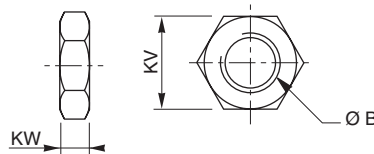


Ø mm	AX	B	CE CH	CN	EN	KK	LE LF
16	12	40	30	6	9	M6	11
20	16	48	36	8	12	M8	13
25	20	57	43	10	14	M10	15
32	20	57	43	10	14	M10	15
40	22	66	50	12	16	M12	17
50	28	85	64	16	21	M16	22
63	28	85	64	16	21	M16	22

### Neck nut MR3



Ø mm		
12-16	43900150	
20	43900151	
25	43900151	
32	43900203	
40	43900204	
50	43900205	
63	43900205	

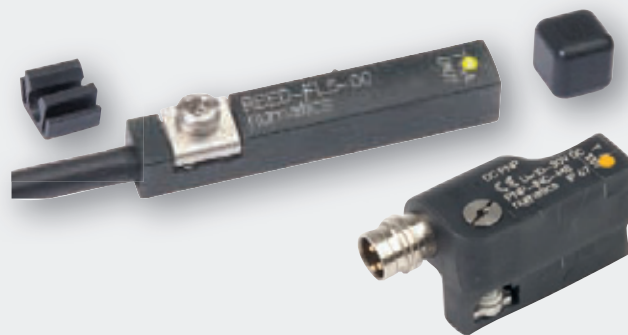
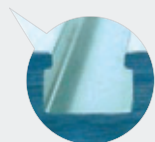


Ø mm	B	KV	KW
16	M 16 x 1,5	19	4
20	M 22 x 1,5	27	5
25	M 22 x 1,5	27	5
32	M 30 x 1,5	35	10
40	M 36 x 1,5	42	10
50	M 45 x 1,5	60	12
63	M 45 x 1,5	60	12

# MAGNETIC POSITION DETECTORS

## REED SWITCH - MAGNETO-RESISTIVE TYPE

for cylinders with "T" slot



	REED 2 wires	MR 3 wires
Switching power ratings (max.)	5 W / 5 VA	3 W
Switching voltage	wires	5 to 120 VDC/AC
	M12	5 to 50 V AC/5 to 60 V DC
Max. switching current	100 mA	
Max. voltage drop	< 5 V	< 2,5 V
Insulation resistance	< 0,2 mm	
Operating temperature	-25°C to +70°C	-25°C to +85°C
Degree of protection	IP 67	
Certification	CE	CE
		UL et cUL (2m - M8)
Signalisation	by yellow diode (LED) when the contact is closed	

- A universal detector for a large range of cylinders and actuators (tie-rod cylinders, profiled, round ...)
- Resistant to severe conditions: short-circuits, vibrations, shocks...
- LED signalisation
- Fastened using standard screwdriver

## YOUR SELECTION

connection / connector	visual	connection		detector (directly adaptable to cylinders with "T" slot)	
		REED 2 wires polarised	MR 3 wires (polarised)	code	
				REED 2 wires	MR 3 wires
PUR cable, 2 or 5 m long, wires 0,14 mm <sup>2</sup> , stripped ends and tinned				2 m	REED-FL2-00 PNP-FL2-00-U
				5 m	REED-FL5-00 PNP-FL5-00
PUR cable, 0,3 m long + male connector, Ø M8 - 3 pins					REED-QDS-M8E PNP-QDS-M8-U
PUR cable, 0,3 m long + screw-type male connector Ø M12 - 3 pins					REED-QDS-M12E PNP-QDS-M12
3 pin screw-type male connector Ø M8					REED-INC-M8E PNP-INC-M8

## MOUNTING KITS (for round cylinders or cylinders with tie rods)

cylinder type	visual	cylinder Ø mm	code		cylinder type	visual	cylinder Ø mm	code for T detectors	
			for T detectors	for M8 detector				plastic	stainless steel
tie rods - PES 450		32-40	N199-1047		round - ISOCLAIR		12	N199-1038	N199-1054
		50-63-80	N199-1048	N99-1183			16	N199-1039	N199-1054
		100	N199-1049				20	N199-1040	N199-1055
		125-160-200	N199-1050	-			25	N199-1041	N199-1055
							32	N199-1042	N199-1056
							40	N199-1043	N199-1058
							50	-	N199-1044
							63	-	N199-1045

## OPTIONS AND ACCESSORIES

PVC extension cord, length 5 m, 3-wire conductors 0.25 mm <sup>2</sup> with 1 screw-type female M8 connector (other end plain) blue wire not used (REED) - IP67		1 = 3 = 4		88100239
PVC extension cord, length 5 m, 3-wire conductors 0.25 mm <sup>2</sup> with 1 screw-type female M12 connector (other end plain) blue wire not used (REED) - IP67		1 = 3 = 4		88100238
straight 3-pin female connector Ø M8, IP67		1 = 3 = 4		88100202

# VALVES

## electropneumatic interfaces

series 304



**1**

page 51

## poppet valves

(high flow, fast response times)

series 261-262



**2-3**

series 263-264



**4-5**

series 284



**6**

pages 52-55

## ISO standard spool valves

ISO 15407-1 - size 01 (26 mm)

series 503

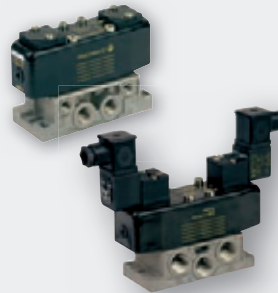


**7** page 56

pages 56-59

ISO 5599-1 - sizes 1-2-3

series 541-542-543

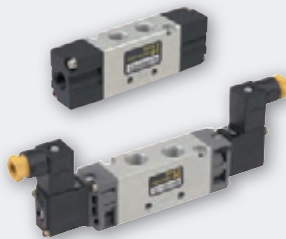


**8**

pages 60-64

## mini spool valves

series 519-520-521



**9**

pages 65-67

## spool valves, threaded G 1/4, integral pilots

series 551



**10**

pages 68-70

spool valves  
manually operated  
series ZF2F-551



**11**

pages 71-72

microvalves  
manually operated  
series 307



**12**

page 73

microvalves  
mechanically operated  
series 308-309-310-550-551



**13**

page 74-75

mini spool valves  
mechanically operated  
series 550



**14**

page 76

# VALVES

## YOUR SELECTION

standards			pilot		body		connection Ø G							construction		max. pressure bar	flow at 6 bar l/min (ANR)	visual	series	page							
ISO 15407-1	ISO 15407-2	ISO 5599/1	solenoid	pneumatic	manual	subbase-mounted	tapped	M3	M5	1/8	1/4	3/8	1/2	3/4	1						1 1/2	NAMUR interface	instant fitting 4 mm OD	instant fitting 6-8 mm OD	poppets	spool type	
<b>3/2</b>																											
			•							•								•		•		8	154	<b>1</b>	304	51	
			•	•		•				•											•		8	400	<b>10</b>	520	65
			•	•		•					•									•		10	700	<b>2-3</b>	261	52	
			•	•		•						•								•		10/12	1750		262		
				•		•							•										3000	266			
				•		•								•									9100	267			
			•			•						•	•							•		10/12	4500/6000	<b>6</b>	284		
			•	•		•							•	•									12500	285			
			•	•		•									•								35000	286			
				•		•					•										•		8/10	860	<b>10</b>		551
				•		•					•										•		8/10	860	<b>11</b>	551	71
				•		•					•								•				8	112	<b>12</b>	307	73
				•		•					•								•				8	140	<b>13</b>	308	74
				•		•					•								•				10	280		309	
				•		•					•								•				10	200		550	
				•		•					•												10	860	551		
				•		•					•										•		10	200	<b>14</b>	550	
<b>4/2</b>																											
			•			•				•								•		•		8	154	<b>1</b>	304	51	
			•	•		•					•									•		10	700	<b>2-3</b>	261	52	
			•	•		•						•								•		10/12	1750		262		
			•	•		•						•							•	•		10	210	<b>4-5</b>	263		
			•	•		•						•								•		10	840	264			
				•		•							•										2940	<b>6</b>	266		52
				•		•									•								9100	267	52		
<b>5/2-5/3</b>																											
•	•		•			•				•											•	10	1200	<b>7</b>	503	56	
			•	•		•					•	•									•		12	1400	<b>8</b>	541	60
			•	•		•						•	•								•			2800		542	
			•	•		•							•	•							•			4200		543	
			•	•		•								•	•						•			6300/7000		544	
			•	•		•				•											•		8	175	<b>9</b>	519	
			•	•		•					•										•		600	520			
			•	•		•						•									•		1050	521			
			•	•		•						•									•		10	860	<b>10</b>	551	68
				•		•															•		10	600	<b>11</b>	ZF2F	71
				•		•															•		860	551			
				•		•					•										•		10	200	<b>14</b>	550	76

# MINI PILOT SOLENOID VALVES

## 302 series

### 3/2 NC

subbase mounted

CNOMO size 15 mounting pad



Fluids	air or inert gas, filtered, lubricated or not	
Differential pressure	refer to selection table	
Fluid temperature	-10°C to +40°C	
Ambient temperature	-10°C to +50°C	
Body	Technical polymers	
Sealings	NBR (nitrile), PUR (polyurethane) and FPM	
Standard voltages	DC (=)	24V
	AC (~)	24V - 48V - 115V - 230V / 50 Hz

- Very low power consumption
- M12 integrated electrical connection, metal, reliable and robust, IP67 protection
- Version with integrated LED indicator visible from 3 sides

## YOUR SELECTION

current	orifice size	differential pressure	voltage	power		solenoid valve (M) code (1)	standard voltages (V)			connector		
				~	=		AC (~) / 50Hz				DC(=)	
							24	48	115	230	24	



+



or



~/=	mm	bar	V	VA	W	▼ ●		standard	with 2 m cable
<b>3/2 NC - version without connector - intended for connector size 15 - centre distance 9,4 mm (2)</b>									
=	0,8	0...8	24	-	1,2	30211112--P	30211113--P	✓	88143567
	1,1	0...10	24	-	2,65		30211122--P	✓	88143581
	0,6	0...10	24	-	1,2	30211109--P		✓	88143580 (with LED and EP)
<b>3/2 NC - version without connector - intended for connector size 15 - centre distance 8 mm (3)</b>									
=	0,8	0...8	24	-	1,2	30210112--P		✓	88130211



~/=	mm	bar	V	VA	W	▼ ●		supplied	-
<b>3/2 NC - version with connector size 15 - centre distance 9,4 mm (2)</b>									
	0,8	0...8	24	-	1,2	30211112--D	30211113--D	✓	
	1,1	0...10	24	-	2,65		30211122--D	✓	
	1,5	0...6	24	-	2,65	30211127--D		✓	
	0,6	0...10	24	-	1,2	30211109--D		✓	



~/=	mm	bar	V	VA	W	▼ ●		not supplied	
<b>3/2 NC - M12 version with integrated LED and protection - intended for M12 connector</b>									
=	0,6	0...10	-	-	-	30212109--P		✓	

(M) Manual operator ● : with maintained manual operator ▼ : with impulse manual operator

(1) When ordering, please specify in addition to the code: voltage / frequency,

Examples: 30211112--P 24V DC

(2) DIN 43650, 9,4 mm, form C

(3) ISO 15217 / DIN 43650, 8 mm, form C

## OPTIONS AND ACCESSORIES

single M5 threaded subbase

Mating surface blanking plate

88263002



88130203

www.asconumatics.eu

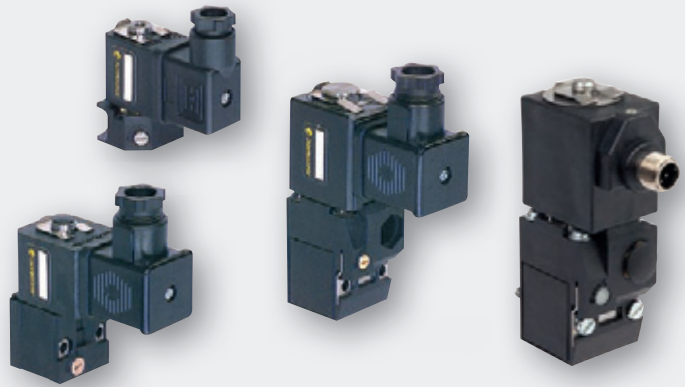


# PILOT SOLENOID VALVES

## 3/2 NC

subbase mounted

CNOMO size 30 mounting pad



Series	189	190	192
Fluids	air or inert gas, filtered, lubricated or not		
Differential pressure	0 to 10 bar		0 to 12 bar
Fluid temperature	-10°C to +60°C		
Ambient temperature	-10°C to +60°C		
Body	Technical polymers		
Sealings	NBR (nitrile), PUR (polyurethane)		
Standard voltages	DC (=)	24V (M12 connection)	
	DC (=)	24V - 48V	
	AC (~)	24V - 48V - 115V - 230V / 50 Hz	

- Different electrical connections (CNOMO or M12)
- Rotatable coil (4 positions at 90° intervals)
- Reduced power consumption
- Connectable exhaust

### YOUR SELECTION

orifice size mm	power		solenoid valve (M) code (1)	(M)	standard voltages (V)						connector			
	~	=			AC (~) / 50Hz				DC(=)		standard	with 2 m cable	with built-in visual indicator and protection	
	VA	W			24	48	115	230	24	48	code	code	voltage	code

#### 3/2 NC - version without connector, size 22 (2)

1,2	3,5	2,5	18900002	●	✓	✓	✓	✓	✓	✓	88122404	88122413	24V =/~	88122405
													48V ~	88122406
													115V ~	88122407
													230V ~	88122410

#### 3/2 NO - version without connector, size 22 (2)

1,2	3,5	2,5	18900011	●	✓	✓	✓	✓	✓	✓	88122404	88122413	24V =	88122405
-----	-----	-----	----------	---	---	---	---	---	---	---	----------	----------	-------	----------

#### 3/2 NC - version with connector, size 22 (2)

1,2	3,5	2,5	18900001	●	✓	✓	✓	✓	✓	✓	supplied	-	-	-
1,2	3,5	2,5	18900007	×						✓				

#### 3/2 NC - version with connector, size 22, with visual indicator and electrical protection (2)

1,2	3,5	2,5	18900019	●					✓					supplied
1,2	3,5	2,5	18900018	●		✓								

#### 3/2 NO - version with connector, size 22 (2)

1,2	3,5	2,5	18900010	●	✓	✓	✓	✓	✓	✓	supplied	-	-	-
-----	-----	-----	----------	---	---	---	---	---	---	---	----------	---	---	---

#### 3/2 NC - version with connector, size 30 (3)

1,6	4	3	19000005	×	✓	✓	✓	✓	✓	✓				
1,6	4	3	19000006	●	✓	✓	✓	✓	✓	✓	supplied	-	-	-
1,6	4	3	19000017	▼	✓	✓	✓	✓	✓	✓				
1,6	4	3	19000008	■	✓	✓		✓	✓					

#### 3/2 NC - version with connector, size 30, with exhaust to the subbase (3)

2,1	10	7	19201001	×	✓	✓	✓	✓	✓					
2,1	10	7	19201002	●	✓	✓	✓	✓	✓		supplied	-	-	-
2,1	10	7	19201003	▼	✓	✓	✓	✓	✓					

#### 3/2 NC - version with connector, size 30, with exhaust 1/8 to the front side (3)

2,1	10	7	19201007	×	✓	✓	✓	✓	✓					
2,1	10	7	19201008	●	✓	✓	✓	✓	✓		supplied	-	-	-
2,1	10	7	19201009	▼	✓	✓	✓	✓	✓					

#### 3/2 NC - version with connector with visual indicator (LED) and electrical protection (RC), size 30 (3)

1,6	4	3	19000021	●		✓								supplied
1,6	4	3	19000022	●	✓			✓	✓					

(M) Manual operator    × : without    ● : with maintained manual operator    ▼ : with impulse manual operator    ■ : with button  
 (1) When ordering, please specify in addition to the code: the type of current, voltage / frequency - Examples: 18900001 24V DC  
 (2) DIN 43650, 11 mm, industry standard B    (3) ISO 4400 / EN 175301-803, form A

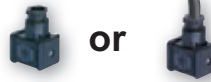
# PILOT SOLENOID VALVES

## YOUR SELECTION

orifice size mm	power		solenoid valve (M) code (1)	(M)	standard voltages (V)						connector			
	~	=			AC (~) / 50Hz				DC(=)		standard code	with 2 m cable code	with built-in visual indicator and protection	
	VA	W			24	48	115	230	24	48			voltage	code



+



or

or



### 3/2 NC - version without connector, size 30 (3)

1,6	4	3	19000013	×	✓	✓	✓	✓	✓	88122404	88122612	24V =/~	88122603
1,6	4	3	19000014	●	✓	✓	✓	✓	✓			48V ~	88122604
1,6	4	3	19000018	▼	✓	✓	✓	✓	✓			115V ~	88122605
1,6	4	3	19000016	■	✓	✓	✓	✓	✓			230V ~	88122608

### 3/2 NC - version without connector, size 30, with exhaust to the subbase (3)

2,1	10	7	19201022	×	✓	✓	✓	✓	✓	88122404	88122612	24V =/~	88122603
2,1	10	7	19201023	●	✓	✓	✓	✓	✓			48V ~	88122604
2,1	10	7	19201024	▼	✓	✓	✓	✓	✓			115V ~	88122605
2,1	10	7	19201024	▼	✓	✓	✓	✓	✓			230V ~	88122608

### 3/2 NC - version without connector, size 30, with exhaust 1/8 to the front side (3)

2,1	10	7	19201028	×	✓	✓	✓	✓	✓	88122404	88122612	24V =/~	88122603
2,1	10	7	19201029	●	✓	✓	✓	✓	✓			48V ~	88122604
2,1	10	7	19201030	▼	✓	✓	✓	✓	✓			115V ~	88122605
2,1	10	7	19201030	▼	✓	✓	✓	✓	✓			230V ~	88122608



### 3/2 NC - version with M12 connection, with exhaust to the subbase

2,1	10	7	19201136	×	✓	✓	✓	✓	✓	not supplied	-	-
2,1	10	7	19201137	●	✓	✓	✓	✓	✓			
2,1	10	7	19201138	▼	✓	✓	✓	✓	✓			

### 3/2 NC - version with M12 connection, with exhaust G 1/8 to the front side

2,1	10	7	19201142	×	✓	✓	✓	✓	✓	not supplied	-	-
2,1	10	7	19201143	●	✓	✓	✓	✓	✓			
2,1	10	7	19201144	▼	✓	✓	✓	✓	✓			

### instant fittings subbase (polyamide 6/6)



1 single subbase	OD 4 mm instant fittings	35300069
1 joinable subbase		35300070
set of 2 joinable end subbases, pressure inlet on right side, OD 6 mm instant fittings	OD 6 mm instant fittings	35300071

### threaded subbase (zamak)



laterally-connected single subbase	threaded G 1/8	35300047
laterally-connected joinable subbase		35300048
laterally-connected single subbase (3 connectable lateral ports)	threaded G 1/4	35300049
laterally-connected joinable subbase (3 connectable lateral ports)		35300057

### replacement coils - see page 111

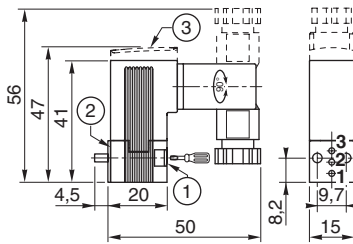
- (M) Manual operator    × : without    ● : with maintained manual operator    ▼ : with impulse manual operator    ■ : with button  
 (1) When ordering, please specify in addition to the code: the type of current, voltage / frequency - Examples: 19201136 24V DC  
 (2) DIN 43650, 11 mm, industry standard B    (3) ISO 4400 / EN 175301-803, form A

# PILOT SOLENOID VALVES

## DIMENSIONS

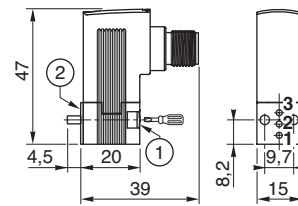
### Solenoid valves

miniature solenoid valve (series 302)  
pad mount, CNOMO size 15 - connector size 15

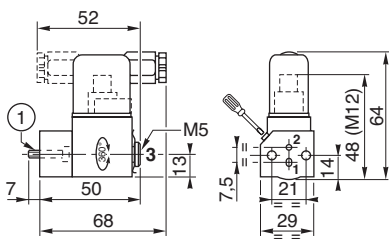


- ① 2 mounting screw M3 x 20 (supplied)
- ② seal (supplied)
- ③ Version with LED and electrical protection

miniature solenoid valve (series 302)  
pad mount, CNOMO size 15 - M12 connector

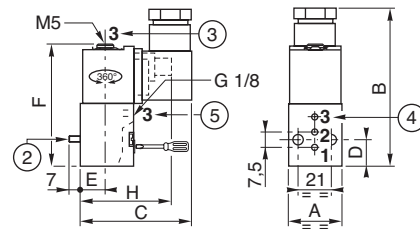


solenoid valve (série 189)  
pad mount, CNOMO size 30



- ① Mounting: two CM4x20 screws (supplied)
- ② Mounting: two CM4 x 33,5 screws (supplied)
- ③ Series 190
- ④ Series 192 with exhaust in the mounting pad
- ⑤ Series 192 with exhaust on front side

solenoid valves (series 190 - 192)  
pad mount, CNOMO size 30

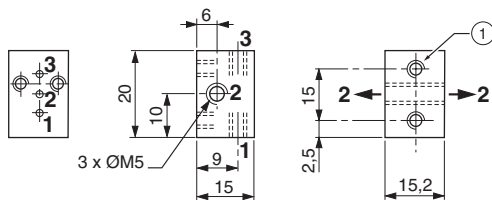


	dimensions (mm)							
series	A	B	C	D	E	F	H	
190	30	83	73	15	16,5	66	60 (190 M12)	
192	30	105	71	15	15,5	91	-	

### Subbases

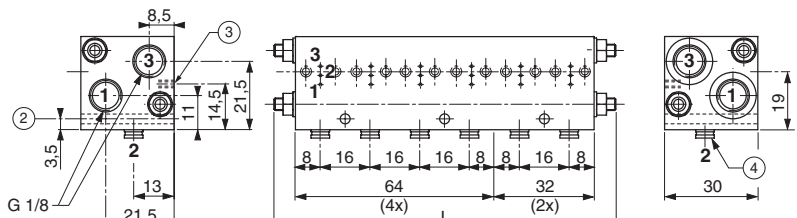
CNOMO size 15 subbases (miniature solenoid valve, series 302)

single M5 threaded subbase



- ① 2 mounting holes Ø M3, depth 4,5 mm
- Outlet port (2) can be connected on the left or the right side of the subbase.

joinable sub-bases with instant fittings

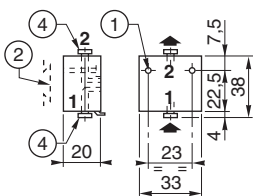


- ② Fixing hole Ø 3,2 (2 for 4x ; 1 for 2x)
- ③ Fixing hole M3, depth 8 (2 for 4x ; 1 for 2x)
- x = Mounting pad for miniature solenoid valve
- 2 G/1/8 plugs supplied ④ with instant fittings for tube Ø 4 mm O.D.

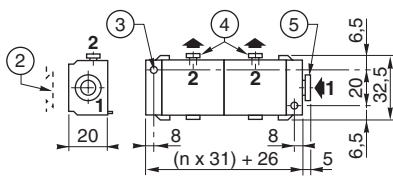
x	subbases	L
2	2x	-
4	4x	-
6	4x + 2x	110
8	4x + 4x	142
10	4x + 4x + 2x	174

CNOMO size 30 subbases (solenoid valves, series 189 - 190 - 192)

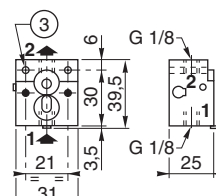
single subbase - instant fittings



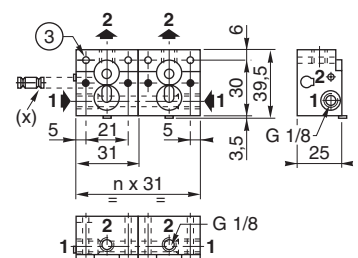
joinable sub-bases with instant fittings



single subbase - threaded



joinable subbase - threaded



- ① two dia. 3,5 mm securing holes, dia. 6,5 mm counter-bores, depth 3,5 mm
- ② Adaptable clips
- ③ 2 mounting holes 4,5 mm dia.
- ④ with instant fittings for tube Ø 4 mm O.D.
- ⑤ with instant fittings for tube Ø 6 mm O.D.
- n = number of subbases
- (x) the joinable subbases are supplied with sealings and screws for battery-type mounting

- Ports**
- 1 : Pressure
  - 2 : Utilisation
  - 3 : Exhaust
- ☞ manual operator

# ELECTRO-PNEUMATIC INTERFACES

## 3/2 - 4/2

solenoid air operated  
with instant fittings for tube Ø 4 mm O.D.



Fluids	air or inert gas, filtered, lubricated or not
Operating pressure	3 to 8 bar
Pilot pressure	internal piloting
Ambient temperature	-10°C to +40°C
Flow (Qv at 6 bar) (ANR)	154 l/min
Assembly	on joinable subbases, which can be mounted on DIN rail EN 50022
Connection	with instant fittings for tube Ø 4 mm O.D.
Solenoid valve	miniature solenoid valve 3/2 NC with low power consumption
Standard voltages	DC (=) 24V AC (~) 24V
Power	1,6 VA (~) / 1,3 W (=)

- Modular joinable valves with instant fittings for fast assembly
- Integrated electrical connection for simplified wiring
- Low power consumption (1,29 W)
- Visualisation: LED integrated on solenoid pilot and pressure indicator on valve

## YOUR SELECTION

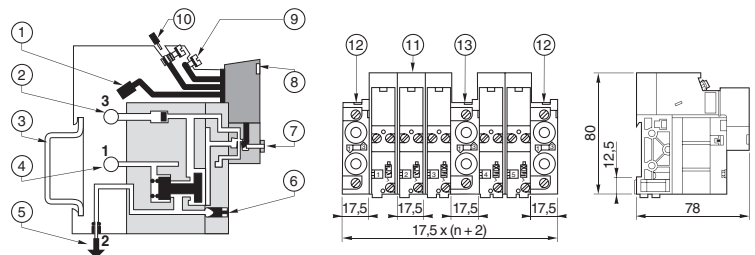
set of 2 end subbases (for Ø 6 mm OD tube)    instant fittings subbase (for Ø 4 mm OD tube)    instant fittings subbase (for Ø 6 mm OD tube)    pneumatic module    solenoid pilot valve (1)

	code	code	code	code	code	(M)	~/=	with LED code	without LED code
3/2 NC or 4/2	30400001	30400011	30400024	30400007	30400008	▼	=	30215178--P	30211178--P
						▼	~	30215178--L	-
						●	=	30215179--P	30211179--P

(M) Manual operator    ● : with maintained manual operator    ▼ : with impulse manual operator  
(1) When ordering, please specify in addition to the code: the type of current, voltage / frequency

## DIMENSIONS

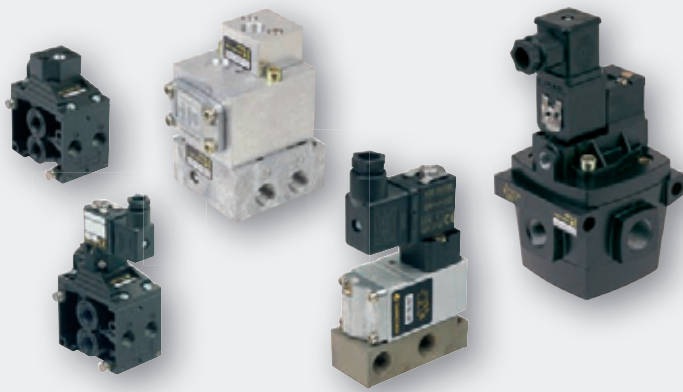
- n = number of subbases
- ① common supply tag
- ② common exhaust
- ③ symmetrical DIN rail EN 50022
- ④ supply pressure
- ⑤ pneumatic signal
- ⑥ optical position indicator
- ⑦ manual operator
- ⑧ display of electrical signal
- ⑨ earth
- ⑩ electrical signal:  
- common (A2)  
- control signal (A1)
- ⑪ pneumatic module
- ⑫ end subbases
- ⑬ intermediate module for 2 inputs with different pressures



(pressure supply 1 directed to the right)

## OPTIONS AND ACCESSORIES

Pilot solenoid valve with integrated visual indicator and protection



# POPPET VALVES

## 3/2 - 4/2

air operated or solenoid air operated  
 threaded, G 1/8 to G 1 1/2  
 subbase mounted, G 1/4 to G 1  
 with instant fittings for tube Ø 6 mm O.D.

Series	261-262	263-264	266-267	284	285-286
Fluids	air or inert gas, filtered, lubricated or not				
Operating pressure	Air.	2 to 12 bar	2 to 10 bar	2 to 16 bar	2 to 12 bar
	Sol air	2 to 10 bar (189 - 190 pilots) - 2 to 12 bar (192 pilot)			
Ambient temperature	-10°C to +60°C				
Flow (Qv at 6 bar) (ANR)	210 up to 35000 l/min (refer to selection table)				
Body	light alloy, treated	zamak	zamak	zamak	light alloy
Sealings	NBR (nitrile)	•	•	•	•
	PUR (polyurethane)	•		•	
Standard voltages	DC (=)	24V			
	AC (-)	24V - 48V - 115V - 230V / 50Hz			

- Poppet valve suitable for individual or joined mounting
- Possibility to combine two sizes in the same assembly
- Short response times for high cycle applications
- Optional flow regulator to optimise the pneumatic cabling

### YOUR SELECTION

	pipe size	flow at 6 bar (ANR)	valve code	air pilot (1) code	subbase (connection) type	code	
	=			+		+	
		l/min			type		
<b>3/2 NC - air operated - subbase mounted - spring return</b>							
	G 1/4	700	<b>26190067</b>	<b>88126110</b>	single (side) joinable (side)	<b>35300049</b> <b>35300057</b>	
	G 1/4	700	<b>26190068</b>	<b>88126110</b>	single (side) joinable (bottom)	<b>35300049</b> <b>35300057</b>	
	G 3/8	1750	<b>26290352</b>	<b>88126110</b>	single (side)	<b>35700002</b>	
	G 1/2	3000	<b>26690001</b>	<b>88128408</b>	single (side)	<b>35700014</b>	
	1	9100	<b>26790001</b>	<b>88128408</b>	-	-	
	=			+			
<b>3/2 NC - air operated - tapped body</b>							
	3/8	4500	<b>28490001</b>	<b>88128408</b>	-	-	
	1/2	6000	<b>28490002</b>	<b>88128408</b>	-	-	
	3/4	12500	<b>28590213</b>	<b>88128408</b>	-	-	
	1	12500	<b>28590215</b>	<b>88128408</b>	-	-	
	1 1/2	35000	<b>28690023</b>	-	-	-	
<b>3/2 NO - air operated - tapped body</b>							
	1/2	6000	<b>28490005</b>	<b>88128408</b>	-	-	
	=			+		+	
		l/min	code	code	type	code	
<b>4/2 - air operated - subbase mounted - spring return</b>							
	G 1/4	700	<b>26190069</b>	<b>88126110</b>	single (side)	<b>35700003</b>	
	G 3/8	1750	<b>26290354</b>	<b>88126110</b>	single (side)	<b>35700004</b>	
	G 1/2	2940	<b>26690003</b>	<b>88128408</b>	single (side)	<b>35700018</b>	
	G1	9100	<b>26790002</b>	<b>88128408</b>	single (side)	<b>35700020</b>	
	=			+			
<b>4/2 - air operated - tapped body - spring return</b>							
	G 1/8	210	<b>26390002</b>	<b>88126401</b>	-	-	
	G 1/4	840	<b>26490026</b>	<b>88126401</b>	-	-	

(1) the pilot pressure must be equal or superior to the operating pressure

# POPPET VALVES

## YOUR SELECTION

=	pipe size	flow at 6 bar (ANR)	valve	pilot solenoid valve (1)				subbase (connection)
				code	VA	W	(M)	

=	l/min	code	qty	+				connector	type	code
				code	VA	W	(M)			
<b>3/2 NC - solenoid air operated - subbase mounted - spring return</b>										
	G 1/4	700	26190067 + 1 x	18900001	3,5	2,5	●	size 22 (2)	single (side)	35300049 (4)
				19000006	4	3	●	size 30 (3)		
				19000017	4	3	▼	size 30 (3)		
	G 3/8	1750	26290352 + 1 x	18900001	3,5	2,5	●	size 22 (2)	single (side)	35700002
				19000006	4	3	●	size 30 (3)		
	G 3/8	1750	26290353 + 1 x	18900001	3,5	2,5	●	size 22 (2)	single (side)	35700002
19000006				4	3	●	size 30 (3)			
G 1/2	3000	26690018 + 1 x	19000006	4	3	●	size 30 (3)	single (side)	35700014	
			19000017	4	3	▼				
			19201002	6	5	●	form A			
			19201003	6	5	▼				

=	l/min	code	qty	+				connector	type	code
				code	VA	W	(M)			
<b>3/2 NC - solenoid air operated - tapped body - spring return</b>										
	G 3/8	4500	28490040 + 1 x	19000006	4	3	●	size 30 (3)		
				19000017	4	3	▼			
	G 1/2	6000	28490041 + 1 x	19000006	4	3	●	size 30 (3)		
				19000017	4	3	▼			
	G 3/4	12500	28590238 + 1 x	19000006	4	3	●	size 30 (3)		
				19000017	4	3	▼			
G 1	12500	28590239 + 1 x	19000006	4	3	●	size 30 (3)			
			19000017	4	3	▼				
G 1 1/2	35000	28690026 + 1 x	19000006	4	3	●	size 30 (3)			
			19000017	4	3	▼				

=	l/min	code	qty	+				connector	type	code
				code	VA	W	(M)			
<b>3/2 NO - solenoid air operated - tapped body - spring return</b>										
	G 1/2	6000	28490043 + 1 x	19000006	4	3	●	size 30 (3)		
				19000017	4	3	▼			
				19201002	6	5	●	form A		
				19201003	6	5	▼			

=	l/min	code	qty	+				connector	type	code
				code	VA	W	(M)			
<b>4/2 - solenoid air operated - subbase mounted - spring return</b>										
	G 1/4	700	26190069 + 1 x	18900001	3,5	2,5	●	size 22 (2)	single (side)	35700003
				19000017	4	3	▼	size 30 (3)		
	G 3/8	1750	26290354 + 1 x	18900001	3,5	2,5	●	size 22 (2)	single (side)	35700004
				19000017	4	3	▼	size 30 (3)		

=	l/min	code	qty	+				connector	type	code
				code	VA	W	(M)			
<b>4/2 - solenoid air operated - subbase mounted - spring return</b>										
	G 1/2	3000	26690017 + 1 x	19000017	4	3	▼	size 30 (3)	single (side)	35700018
				19201002	6	5	●	size 30 (3)		
	1	9100	26790013 + 1 x	18900001	3,5	2,5	●	size 22 (2)	single (side)	35700020
			19000017	4	3	▼	size 30 (3)			

=	l/min	code	qty	+				connector	type	code	
				code	VA	W	(M)				
<b>4/2 - solenoid air operated - instant fittings / tapped - spring return</b>											
	2-4: instant fittings		+ 1 x	18900001	3,5	2,5	●	size 22 (2)			
	Ø 6 mm O.D.										26390005
	1-3: G 1/8										
	G 1/8	210									26390002
G 1/4	840	26490026					form B				

(M) Manual operator ● : with maintained manual operator ▼ : with impulse manual operator

(1) When ordering, please specify in addition to the code: the type of current, voltage / frequency

(2) DIN 43650, 11 mm, industry standard B (3) ISO 4400 / EN 175301-803, form A

(4) These subbases can be directly mounted on symmetrical EN 50022 - AFNOR NF C63015 standard rail using 1 mounting clip (clips sold in packets of 10 - code: 33400036)

# POPPET VALVES

## OPTIONS AND ACCESSORIES

Module with 2 flow regulators, joinable for:

- valve 263 (G 1/8) - code: **34600209**
- valve 264 (G 1/4) - code: **34600109**

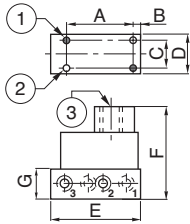


## DIMENSIONS

### DIMENSIONS 261-262

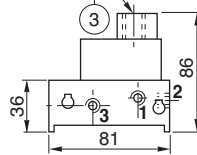
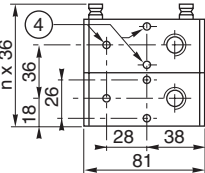
#### Air operated

valves 261-262 on single subbase



**Ports**  
1 : Pressure  
2 : Outlet  
3 : Exhaust

valve 261 on joinable subbases

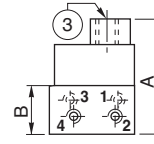
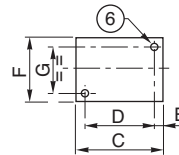


series	3/2 - dimensions (mm)					
	A	B	C	D	E	F
261	52	5	20	30	70	72
262	60	6	38	50	82	85

n = number of subbases

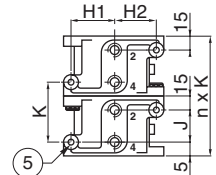
#### Air operated 4/2 valves

valves 261-262 on single subbase



**Ports**  
1 : Pressure  
2 : Outlet  
4 : Outlet  
3 : Exhaust

valve 261-262 on joinable subbases



series	4/2 - dimensions (mm)													
	A	B	C	D	E	F	G	H1	H2	J	K	L	M	N
261	92	32	63	49	5,5	56	43	41	39	26	56	96	29	94
262	100	45	84	64	7	60	46	44	44	34	64	101	38	102

① 2 mounting holes Ø 5,5 mm (series 262)

② 2 mounting holes Ø 4,5 mm (series 261)

③ 4 pilot port: G 1/4

④ 3 mounting holes Ø 4,5; spot facing Ø 7,5; prof. 6 mm

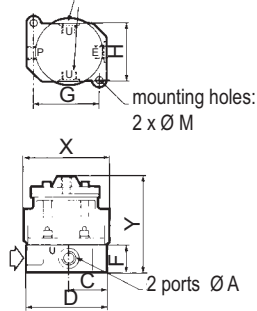
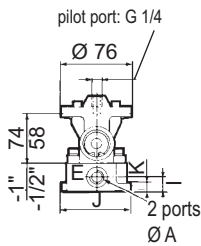
⑤ 2 mounting holes Ø 7 mm

⑥ 2 mounting holes Ø 5,5 (series 261), Ø 6,5 (series 262)

### Series 266-267

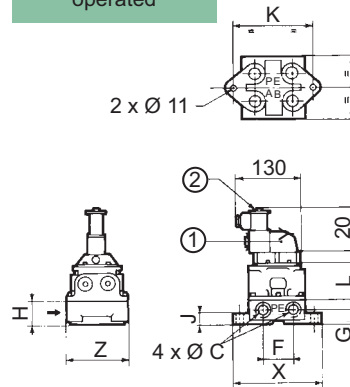
#### Air operated

2 outlet ports Ø A  
(2 connection possibilities)



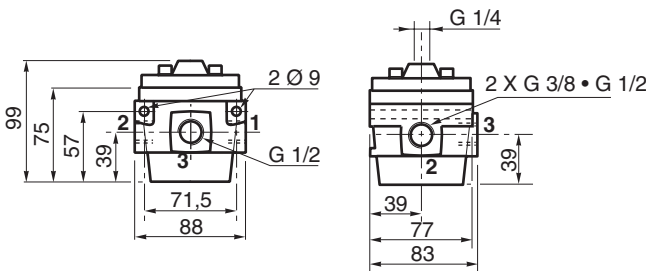
series	266	267
Ø A	G 1/2	G 1
C	48,5	93,5
D	92	164
F	34	55
G	76	144
H	62	68
I	18	25
J	78	88
K	9	12
Ø M	2 Ø9	2 Ø11
X	100	133
Y	116	153

#### Solenoid air operated



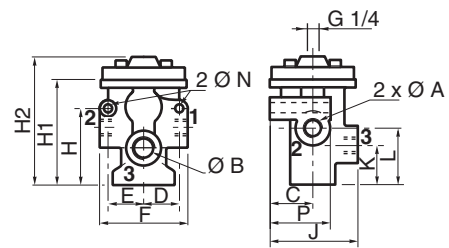
series	266	267
Ø C	G 1/2	G 1
F	57	82
G	26	35
H	45	63
J	20	20
K	133	170
L	63	78
X	162	198
Y	205	238
Z	111	130

### Series 284



pipe size	ØA	ØB	C	D	E	F	H	H1	H2	J	K		L	N	P
											NF	NO			
3/4	G 3/4	G 1	39	43.5	39	113	91	126	150	92	88	45	67	9	62
1	G 1	G 1	39	43.5	39	113	91	126	150	92	88	45	67	9	62
1 1/2	G 1 1/2	G 1 1/2	46	66.5	52	165	130	207	231	124	124	64	94	13	78

### Series 285

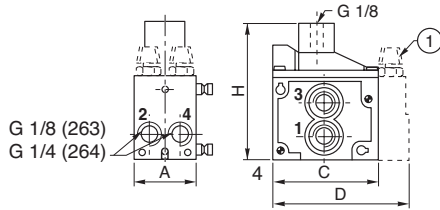


# POPPET VALVES

## DIMENSIONS

### Air operated 4/2 valves

Valves 263-264

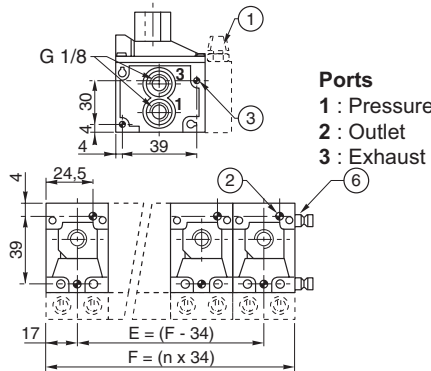


series	dimensions (mm)			
	A	C	D	H
263	34	46,5	76	66
264	45	68	90	87

n = number of subbases

- ① module with 2 flow regulators
- ② 2 upper mounting holes  $\varnothing 4,2 \times 50$
- ③ 2 side mounting holes  $\varnothing 4,2 \times 34$
- ④ 2 upper mounting holes  $\varnothing 5,5 \times 60$

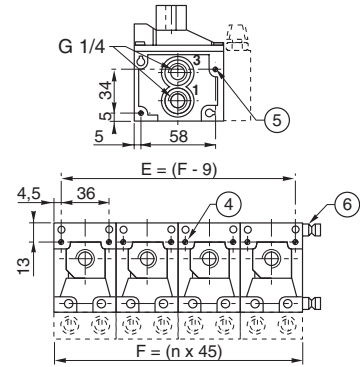
Valves 263 on joinable sub-bases



**Ports**  
 1 : Pressure  
 2 : Outlet  
 3 : Exhaust

- ⑤ 2 side mounting holes  $\varnothing 5,5 \times 45$
- ⑥ the valves are supplied with seals, screws and diabolos for joinable subbase mounting

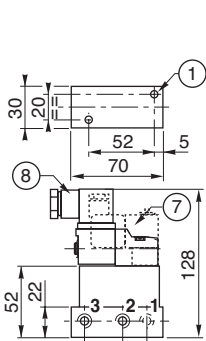
Valves 264 on joinable sub-bases



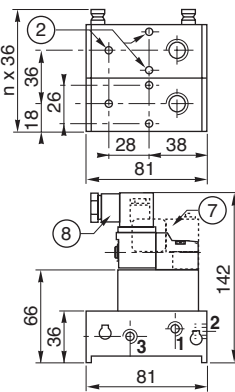
### Solenoid air operated 3/2 valves

valve 261

on single subbase

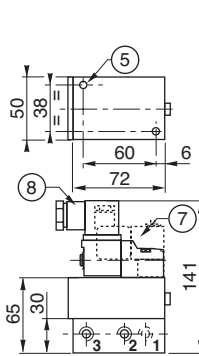


on joinable subbases

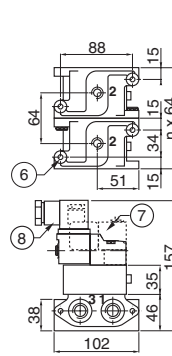


valve 262

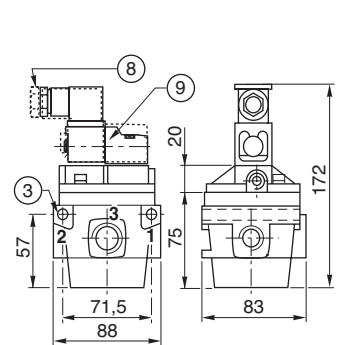
on single subbase



on joinable subbases



valve 284



- ① 2 mounting holes  $\varnothing 4,5$  mm
- ② 3 mounting holes  $\varnothing 4,5$ ; spot facing  $\varnothing 7,5$ ; prof. 6 mm
- ③ 2 side mounting holes  $\varnothing 9$  mm

- ⑤ 2 mounting holes  $\varnothing 5,5$  mm
- ⑥ 2 mounting holes  $\varnothing 7$  mm
- ⑦ pilot 189

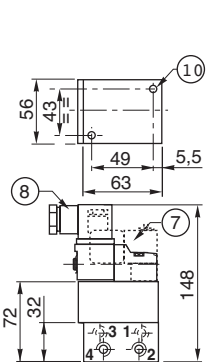
- ⑧ pilot 190
- ⑨ pilot 192
- n = number of subbases

**Ports**  
 1 : Pressure  
 2 : Outlet  
 3 : Exhaust

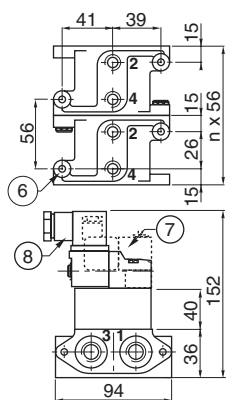
### Solenoid air operated 4/2 valves

valve 261

on single subbase

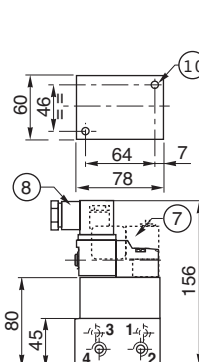


on joinable subbases

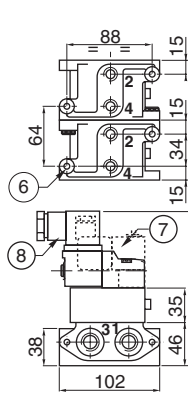


valve 262

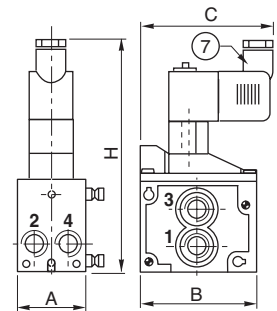
on single subbase



on joinable subbases



valves 263 - 264



Valves arranged in joinable manner:  
 see top of page

- ⑥ 2 mounting holes  $\varnothing 7$  mm
- ⑦ pilot 189
- ⑧ pilot 190
- ⑩ 2 mounting holes  $\varnothing 5,5$  (series 261),  $\varnothing 6,5$  (series 262)

**Ports**  
 1 : Pressure  
 2 : Outlet  
 3 : Exhaust  
 4 : Utilisation

series	dimensions (mm)			
	A	B	C	H
263	34	46,5	65	117
264	45	68	80	138

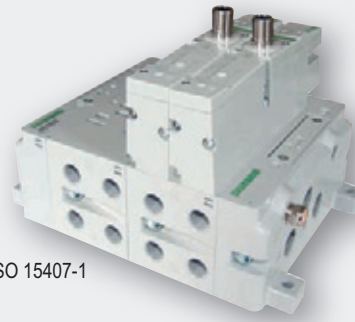


# 2x3/2 - 5/2 - 5/3 SPOOL VALVES

503 series - solenoid air operated

ISO 15407-1 (26 mm) M12 on the top

ISO 15407-2 (26 mm) M12 in mounting



ISO 15407-1


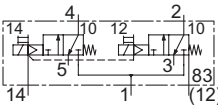
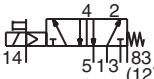
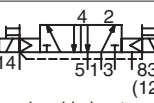
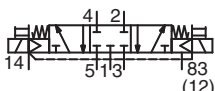
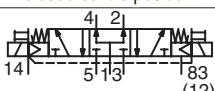
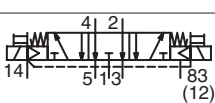


ISO 15407-2

	ISO 15407-1	ISO 15407-2
Fluids	air or inert gas, filtered, lubricated or not	
Operating pressure	2 to 10 bar (2x3/2) -0,95 to 10 bar (5/2-5/3)	2 to 8 bar (2x3/2) -0,95 to 8 bar (5/2-5/3)
Pilot pressure	3,5 to 10 bar (2x3/2)  2 to 10 bar (5/2 solenoid air return)  3 to 10 bar (others)	3,5 to 8 bar (2x3/2)  2 to 8 bar (5/2 solenoid air return)  3 to 8 bar (others)
Ambient temperature	-10°C to +50°C	
Flow (Qv at 6 bar) (ANR)	refer to selection table	
Body	Aluminium, E-coating treatment	
Spool seals	NBR [+ PUR (rubber packed)]	
Other seals	NBR + FPM	
Other materials	PAM (polyarylamide)	
	GF 50% (glass fiber reinforced)	
Standard voltages	24V DC (=)	

- Rubber packed spool technology
- High flow rate up to 1200 l/min
- Metal M12 connexion

## YOUR SELECTION (ISO 15407-1)

					15-DIGIT PRODUCT CODE
function	symbol	rated flow at 6,3 bar l/min (ANR)		response time open / closed  (ms)	 ISO 15407-1 spool valves internal supply impulse man. operator
	pilot (14) return (12)	1 → 2 1 → 4	2 → 3 4 → 5		
2 x 3/2 NC	 spring return	900	800	15 / 20	R503A2BD0N82PF1
5/2	 spring return	1200	1100	20 / 60	R503A2B10N82PF1
	 solenoid air return	1200	1100	20	R503A2B40N82PF1
	 W1 closed centre position	1200	1100	15 / 20	R503A2B60N82PF1
5/3	 W2 centre open to pressure	1100	600	18 / 45	R503A2B70N82PF1
	 W3 centre open to exhaust	600	1100	18 / 45	R503A2B50N82PF1

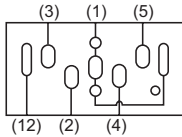
(a) 3,5 bar for a pressure supply (P1) ≤ 7,5 bar (if > 7,5 bar, Pmin. = P1 - 4 b)

# SPOOL VALVES ISO 15407-2 / ISO 15407-1 - 26 mm

## YOUR SELECTION (ISO 15407-1)

function	function	thread type	15-DIGIT PRODUCT CODE
----------	----------	-------------	-----------------------

### Single subbase - M12 connector (on top of the valve)



**internal supply**  
 1-2-3-4-5 = 5 x 3/8  
 12 = 1/8 (pilot exhaust 83)

G

**G503AA3A30A0030**

### Joinable subbase (manifold base) - M12 connector (on top of the valve)



one manifold base for 2 stations valve  
 side ports, 4 x 1/4(max. 32 stations)

G

**G503AMV220A0030**

### End plate kits



#### horizontal supply

3 x 3/8 (1/3/5 ports), 2 x 1/8 (12/14 ports)  
 (internal supply configuration)

G

**G503AK428304004**

### Blank station plate kit



Used to block off a manifold station block  
 for future use

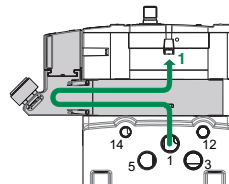
**P503AB428359001**



## OPTIONS AND ACCESSORIES

type	Pressure regulator - (pressure range 0,7 to 10 bar)	ISO 15407-1	ISO 15407-2
------	---	-------------	-------------

RS

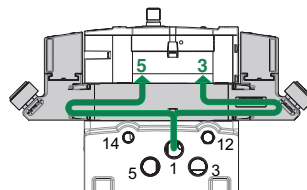


.....RS...A00.

R503ARS120A0030

R503ARS12JA0020

RD




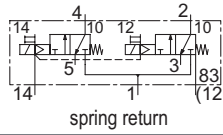
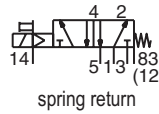
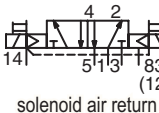
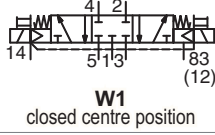
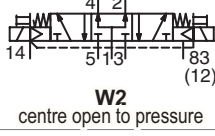
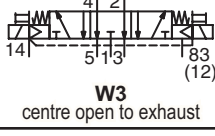
.....RD...A00..

R503ARD120A0030


R503ARD12JA0020

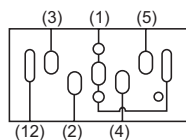
# SPOOL VALVES ISO 15407-2 / ISO15407-1

## YOUR SELECTION (ISO 15407-2)

					15-DIGIT PRODUCT CODE
function	symbol  pilot (14) return (12)	rated flow at 6,3 bar l/min (ANR)		response time open / closed  (ms)	 ISO 15407-2
<b>impulse man. operator</b>					
2 x 3/2 NC	 spring return	900	800	15 / 20	<b>R503A2BD0MA00F1</b>
5/2	 spring return	1200	1100	20 / 60	<b>R503A2B10MA00F1</b>
	 solenoid air return	1200	1100	20	<b>R503A2B40MA00F1</b>
5/3	 <b>W1</b> closed centre position	1200	1100	15 / 20	<b>R503A2B60MA00F1</b>
	 <b>W2</b> centre open to pressure	1100	600	18 / 45	<b>R503A2B70MA00F1</b>
	 <b>W3</b> centre open to exhaust	600	1100	18 / 45	<b>R503A2B50MA00F1</b>

(a) 3,5 bar for a pressure supply (P1) ≤ 7,5 bar (if > 7,5 bar, Pmin. = P1 - 4 b)

			15-DIGIT PRODUCT CODE
function	designation	thread type	
<b>catalogue number - 4-pin straight M12 connector in mounting</b>			



**internal supply**  
1-2-3-4-5 = 5 x 3/8  
12 = 1/8 (pilot exhaust 83)  
(mounting interface surface  
with electrical connector)

G

**G503AA3A3M56Y20**

# SPOOL VALVES ISO 15407-2 / ISO15407-1

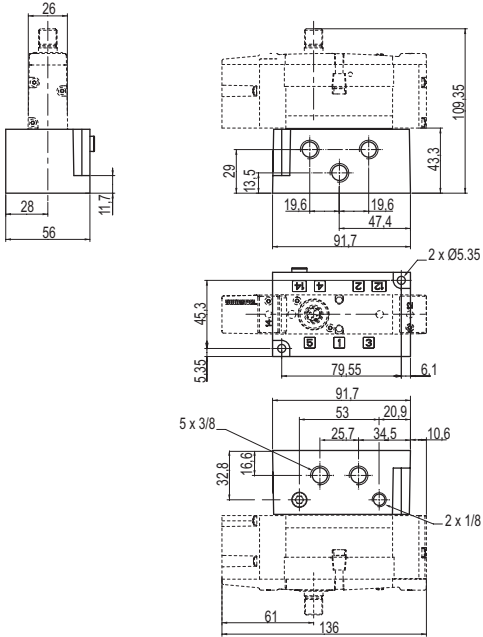
## OPTIONS AND ACCESSORIES

Sandwich regulators:  
See page 57

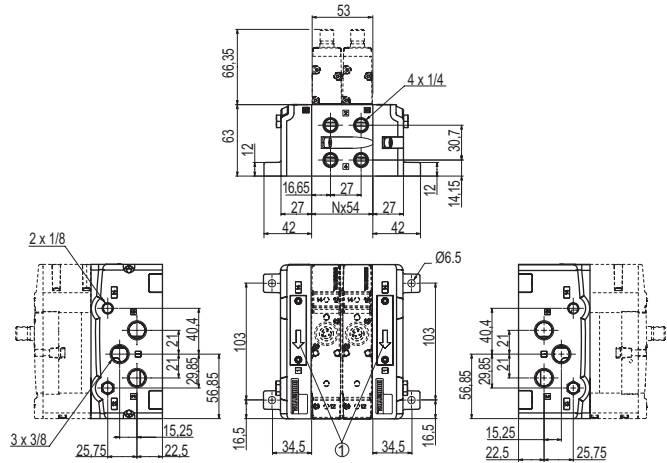
## DIMENSIONS

### Valves (ISO 15407-1 26 mm) - M12 on the top

Single subbase



Joinable subbase (manifold base)

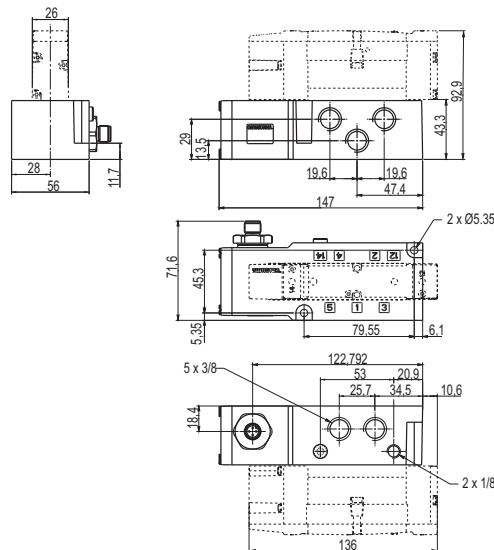


#### Ports

- 1 : Pressure
- 2-4 : Outlet
- 3-5 : Exhaust
- 12 : Return

### Valves (ISO 15407-2 26 mm) - M12 connector in mounting

Single subbase



#### Ports

- 1 : Pressure
- 2-4 : Outlet
- 3-5 : Exhaust
- 12 : Return

# 5/2 - 5/3 SPOOL VALVES MULTIFUNCTION

air operated or solenoid air operated  
with subbase ISO 5599/1  
sizes 1, 2 and 3



Series	541	542	543	544
Fluids	air or inert gas, filtered, lubricated or not			
Operating pressure	3 to 10 bar (internal pilot)		2 to 12 bar (internal pilot)	
	-0.950 to 12 bar (external pilot)			
Pilot pressure	refer to selection table			
Ambient temperature	-10°C to +60°C			
Flow (Qv at 6 bar) (ANR)	1400 l/mn	2800 l/mn	4200 l/mn	6300 l/min (G3/4 subbase) 7000 l/min (G1)
	metal cover / POM (polyacetal), light alloy			
Sealings	NBR (nitrile), PUR (polyurethane)			
Standard voltages	DC (=) 24V (M12) / DC (=) 24V - 48V			
	AC (~) 24V - 48V - 115V - 230V / 50Hz			

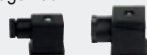
- Reliability: long service life, 30 million cycles
- Various power supply options, internal or external, with selector seals
- Modular assembly using joinable subbases
- Side or bottom connection for subbases

## YOUR SELECTION

	=	air operated valve			+		
		type	pilot pressure bar	flow at 6 bar (ANR) l/min			code
<b>5/2 - air operated - spring return (monostable function)</b>							
	=	ISO 1	3 ... 12	1400	code	see page 66	
		ISO 2		2800			<b>54202017</b>
<b>5/2 - air operated - differential return (monostable function)</b>							
	=	ISO 1	3 ... 12	1400	code	see page 66	
		ISO 2		2800			<b>54202018</b>
<b>5/2 - air operated - air return (bistable function)</b>							
	=	ISO 1	1,5 ... 12	1400	code	see page 66	
		ISO 2		2800			<b>54202019</b>
		ISO 4		6300/7000			<b>54400003</b>
<b>5/3 - air operated - pressure held W1</b>							
	=	ISO 1	3 ... 12	1400	code	see page 66	
		ISO 2		2800			<b>54202020</b>
<b>5/3 - air operated - pressure applied W2</b>							
	=	ISO 1	3 ... 12	1400	<b>54101022</b>	see page 66	
<b>5/3 - air operated - pressure released W3</b>							
	=	ISO 1	3 ... 12	1400	code	see page 66	
		ISO 2		2800			<b>54202021</b>

## OPTIONS AND ACCESSORIES

Connector sizes 22 and 30:  
see page 106



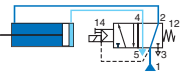
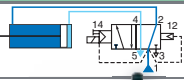
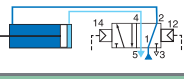
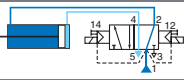
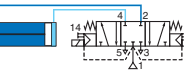
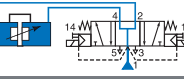
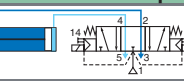


Mating surface blanking plate

**88100074**

# MULTIFUNCTION SPOOL VALVES ISO 5599/1 - sizes 1, 2 and 3

## YOUR SELECTION

 =	solenoid air operated valve				+	solenoid pilot valve (1)					+	
	type	pilot pressure bar	flow at 6 bar (ANR) l/min	code		qty	code	power ~ VA	W	(M)		
<b>5/2 - solenoid air operated - spring return (monostable function)</b>												
	ISO 1	3...10	1400	<b>54191023</b>	+ 1 x	<b>18900001</b>	3,5	2,5	●	size 22 (2)	see page 66	
	ISO 2	2,5...10	2800	<b>54292023</b>		<b>19000006</b>	4	3	●	size 30 (3)		
	ISO 3	3...10	4200	<b>54391023</b>		<b>19000017</b>	4	3	▼	size 30 (3)		
	ISO 4	2,5...10	6300/7000	<b>54490017</b>	+ 1 x	<b>19201001</b>	10	7	×	size 30 (3)		
<b>5/2 - solenoid air operated - differential return (monostable function)</b>												
	ISO 1	3...10	1400	<b>54191024</b>	+ 1 x	<b>18900001</b>	3,5	2,5	●	size 22 (2)	see page 66	
	ISO 2	2...10	2800	<b>54292024</b>		<b>19000006</b>	4	3	●	size 30 (3)		
<b>5/2 - solenoid air operated - air return (bistable function)</b>												
	ISO 1	1,5...10	1400	<b>54191025</b>	+ 2 x	<b>18900001</b>	3,5	2,5	●	size 22 (2)	see page 66	
	<b>5/2 - solenoid air operated - solenoid differential return (bistable)</b>					<b>19000006</b>	4	3	●	size 30 (3)		
	ISO 1		1400	<b>54191027</b>	+ 2 x	<b>19000017</b>	4	3	▼	size 30 (3)	see page 66	
	<b>5/2 - solenoid air operated - solenoid air return (bistable)</b>					<b>19000006</b>	4	3	●	size 30 (3)		
	ISO 2	1,5...10	2800	<b>54292027</b>		<b>19000017</b>	4	3	▼	size 30 (3)		
	<b>5/3 - solenoid air operated - pressure held W1</b>					+ 2 x	<b>19201001</b>			×	see page 66	
	ISO 1		1400	<b>54191028</b>	<b>19201002</b>		10	7	●	size 30 (3)		
	ISO 2	3...10	2800	<b>54292028</b>	<b>19201003</b>				▼			
	ISO 3		4200	<b>54391028</b>								
	<b>5/3 - solenoid air operated - pressure applied W2</b>					+ 2 x	<b>18900001</b>	3,5	2,5	●	size 22 (2)	
	ISO 1	3...10	1400	<b>54191030</b>	<b>19000006</b>		4	3	●	size 30 (3)		
	<b>5/3 - solenoid air operated - pressure released W3</b>					+ 2 x	<b>19000017</b>	4	3	▼	size 30 (3)	
	ISO 1		1400	<b>54191029</b>								
	ISO 2	3...10	2800	<b>54292029</b>								

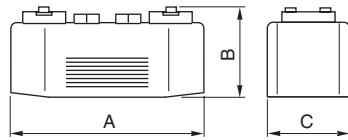
(M) Manual operator ● : with maintained manual operator ▼ : with impulse manual operator  
 (1) When ordering, please specify in addition to the code: the type of current, voltage / frequency  
 (2) DIN 43650, 11 mm, industry standard B (3) ISO 4400 / EN 175301-803, form A

# MULTIFUNCTIONAL SPOOL VALVES AND SUBBASES ISO 5599/01 - sizes 1, 2 and 3

## DIMENSIONS

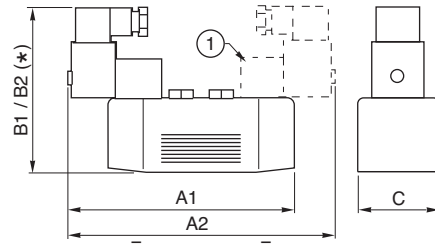
### Valves

air operated



size	dimensions (mm)		
	A	B	C
ISO 1	122	51	38
ISO 2	149	53	49
ISO 4	246	78	67

solenoid air operated (189-190)

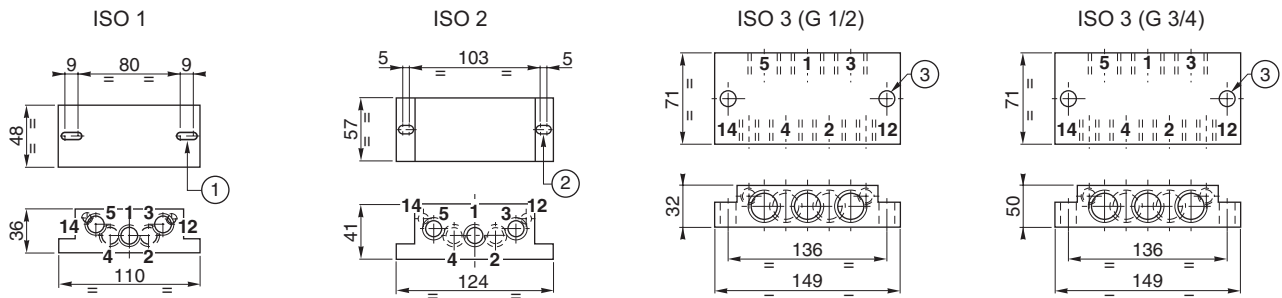


size	dimensions (mm)				
	A1	A2	B1	B2	C
ISO 1	150	178	110	115	38
ISO 2	174	198	112	117	49
ISO 3	184	184	127	133	62
ISO 4	265	284	-	147	67

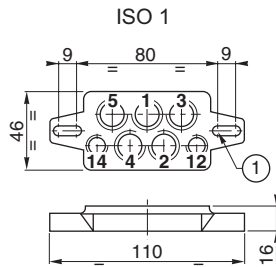
(\*) B1: pilot 189 / B2: pilots 190 / 192 (series 544)

① bistable function

### Single subbase - side connection



### Single subbase - bottom connection



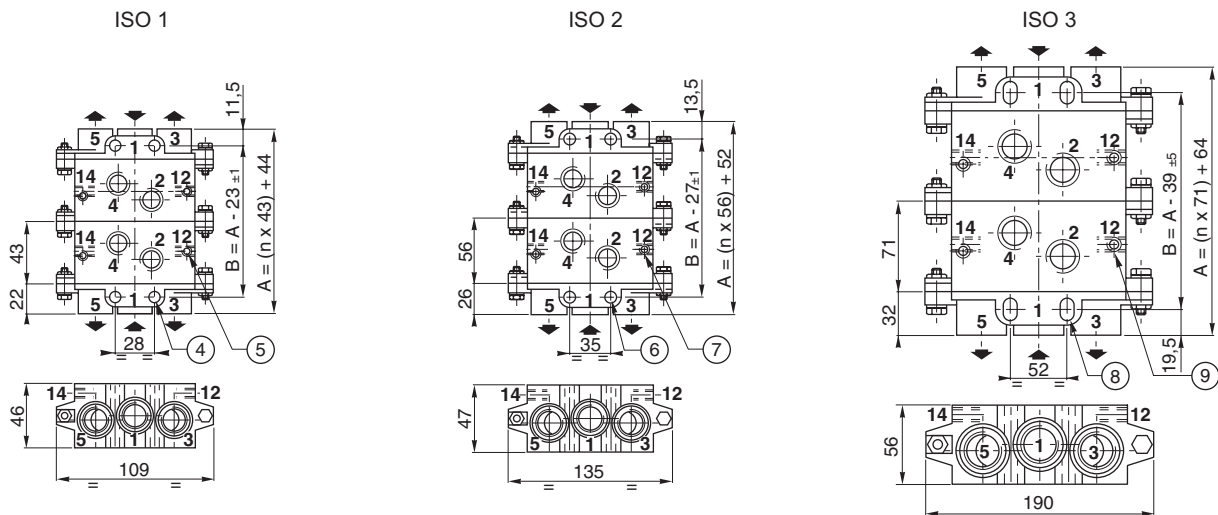
#### Ports

- 1 : Pressure
- 2-4 : Outlet
- 3-5 : Exhaust
- 12 : Return
- 14 : Pilot

n = number of subbases

- ① 2 mounting holes  $\varnothing 5,5$  counterbored  $\varnothing 14$
- ② 2 mounting holes, width 5,5
- ③ 2 mounting holes  $\varnothing 6,6$
- ④ 4 mounting holes  $\varnothing 6,8$
- ⑤ bottom mounting: 4 holes  $\varnothing M5$
- ⑥ front mounting: 4 holes  $\varnothing 9$
- ⑦ bottom mounting: 4 holes  $\varnothing M6$
- ⑧ front mounting: 4 holes width 12
- ⑨ bottom mounting: 4 holes  $\varnothing M8$ , depth 20

### Joinable metal subbases - bottom connection

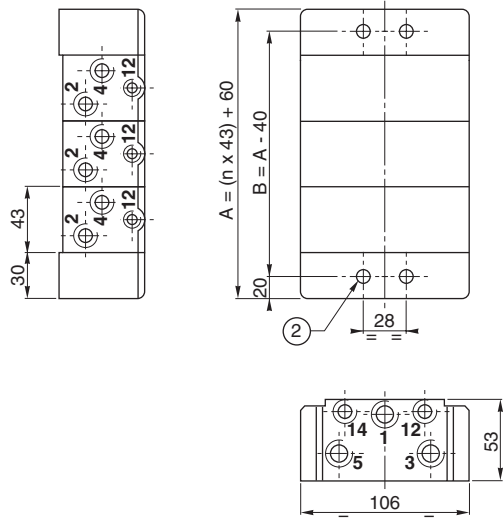


# MULTIFUNCTIONAL SPOOL VALVES AND SUBBASES ISO 5599/01 - sizes 1, 2 and 3

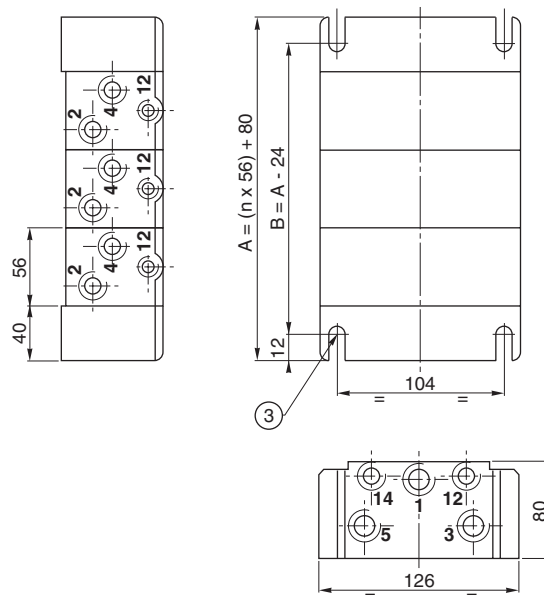
## DIMENSIONS

### Joinable metal subbases - side connection

ISO 1



ISO 2

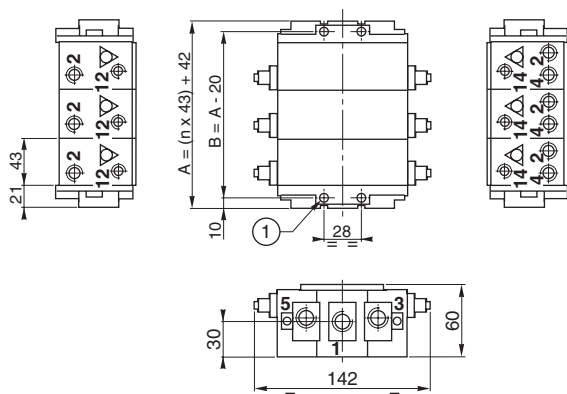


n = number of subbases

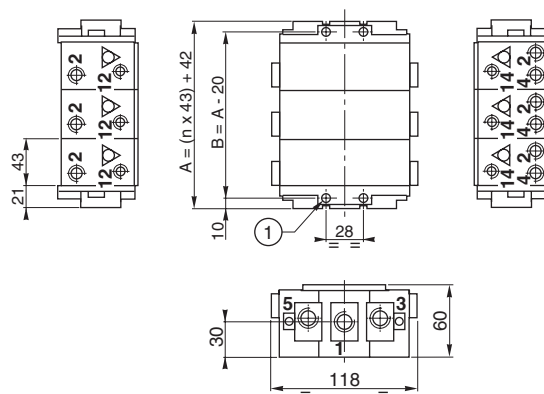
- ① 4 mounting holes  $\varnothing$  6,5 depth 59
- ② 4 mounting holes  $\varnothing$  7 depth 53
- ③ 4 mounting openings  $\varnothing$  8,5 depth 72

### Joinable polyamide subbases - side connection

ISO 1 with built-in flow regulators and integrated pressure indicators



ISO 1 without flow regulators and integrated pressure indicators





#### Ports

- 1 : Pressure
- 2-4 : Outlet
- 3-5 : Exhaust
- 12 : Return
- 14 : Pilot





# SINGLE OR JOINABLE SUBBASES ISO 5599/01 - sizes 1, 2 and 3

## YOUR SELECTION

	size	ports			code
		12-14	1-2-4	3-5	
	<b>single aluminium subbases - side connection</b>				
	ISO 1	G 1/8	G 1/4	G 1/4	<b>35500076</b>
		G 1/8	G 1/4	G 3/8	<b>35500061</b>
		G 1/8	G 3/8	G 3/8	<b>35500382</b>
	ISO 2	G 1/8	G 3/8	G 3/8	<b>35500560</b>
		G 1/8	G 1/2	G 1/2	<b>35500562</b>
	ISO 3	G 1/8	G 1/2	G 1/2	<b>35500171</b>
		G 1/8	G 3/4	G 3/4	<b>35500192</b>
		<b>single aluminium subbases - bottom connection</b>			
ISO 1		G 1/8	G 1/4	G 1/4	<b>35500077</b>
ISO 2		G 1/8	G 3/8	G 3/8	<b>35500085</b>

**Ports**  
**1** : Pressure  
**2-4** : Outlet  
**3-5** : Exhaust  
**12** : Return  
**14** : Pilot

	size	composition	ports			code
			12-14	2-4	1-3-5	
	<b>joinable aluminium subbases - bottom connection</b>					
	ISO 1	1 subbase	G 1/8	G 1/4	-	<b>35500165</b>
		kit of 2 end plates	-	-	G 3/8	<b>35500166</b>
		blanking plate to cover interface				<b>88135517</b>
	ISO 2	1 subbase	G 1/8	G 3/8	-	<b>35500169</b>
		kit of 2 end plates	-	-	G 1/2	<b>35500170</b>
	ISO 3	1 subbase	G 1/8	G 1/2	-	<b>35500173</b>
		kit of 2 end plates	-	-	G 1	<b>35500174</b>
		<b>joinable aluminium subbases - side connection</b>				
ISO 1		1 subbase + 2 seals 1 selector plate (linking 1-3-5) 2 plugs G 1/4 1 plug G 1/8 2 assembly aids	G 1/8	G 1/4	-	<b>35500088</b>
		2 end plates + 2 seals 1 blank selector plate 1 selector plate (linking 1-3-5) 2 assembly aids	G 1/8	-	G 3/8	<b>35500087</b>
ISO 2		1 subbase + 2 seals 1 selector plate (linking 1-3-5) 2 plugs G 1/2 1 plug G 1/8 2 assembly aids	G 1/8	G 1/2	-	<b>35500102</b>
		2 end plates 1 blank selector plate 3 plugs G 3/4 + 2 plugs G 1/8 2 assembly aids	G 1/8	-	G 3/4	<b>35500101</b>
		<b>Joinable polyamide subbases - side connection</b>				
ISO 1		1 subbase (without flow regulators and pressure indicators) 5 seals for 1-3-5-12-14 1 plug G 1/4 + 1 plug G 1/8 2 assembly posts	G 1/8	G 1/4	-	<b>35500156</b>
		2 end plates 4 seals 2 CHC assembly screws 2 assembly nuts 3 plugs G 3/8	-	-	G 3/8	<b>35500159</b>

## OPTIONS AND ACCESSORIES

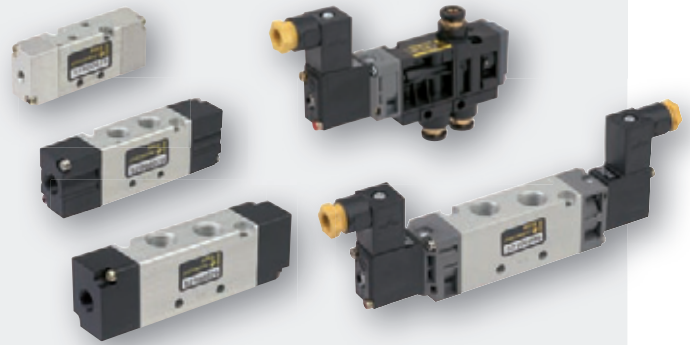
Sandwich flow regulator: ISO size 1

**34600476**

# MINI SPOOL VALVES

3/2 - 5/2 - 5/3


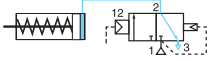

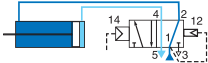

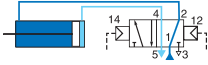

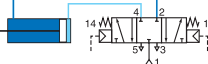
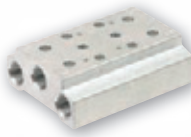

air operated or solenoid air operated  
 threaded Ø M5 - G 1/8 - G 1/4  
 or instant fittings Ø 6



Series	519	520	521
Fluids	air or inert gas, filtered, lubricated or not		
Operating pressure	1,5 to 8 bar		
Pilot pressure	1,5 to 8 bar		
Ambient temperature	+5°C to +50°C		
Orifice	2,5 mm	4 mm	6 mm
Flow (Qv at 6 bar) (ANR)	175 l/min	600 l/min (3/2: 400 l/min)	1050 l/min
Body	light alloy and covers made of acetal resin (POM)		
Internal parts	5/2-5/3 3/2	stainless steel, light alloy and acetal resin (POM) brass and polyacetal (POM)	
Sealings	NBR (nitrile)		
Standard voltages	DC (-) 24V AC (-) 24V - 230V / 50Hz		

- Excellent size / flow ratio
- Assembled in line or on multiple subbases
- Low electrical power consumption (1,6 W)
- Manual operator bi-function: push and/or screw & lock

## YOUR SELECTION

	Ø M5	spool valve G1/8	G1/4	subbase
<b>3/2 NC - air operated - differential return (monostable function)</b>				
		-	52000376	-
<b>5/2 - air operated - differential return (monostable function)</b>				
		-	52000077	52100077 see below
<b>5/2 - air operated - air return (bistable function)</b>				
		51900078	52000078	52100078 see below
<b>5/3 - air operated - pressure held W1</b>				
		-	52000079	52100079 see below
<b>number of joinable subbases</b>				
	2	35500324	35500333	35500342
	3	-	35500334	35500343
	4	-	35500335	35500344
	5	-	35500336	35500345
	6	-	35500337	35500346
	7	-	35500338	-
	8	-	35500339	-
	10	-	35500341	-
	<b>blanking plate</b>			
	-	-	88135527	88135528
	<b>flange with instant fittings</b>			
	-	-	88135532	-

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# MINI SPOOL VALVES

## YOUR SELECTION

	spool valve			type	solenoid pilot valve				connector	subbase
	Ø M5	G1/8	G1/4		voltage V	power ~ VA	power = W	(M)		
<b>5/2 - solenoid air operated - spring return (monostable function)</b>										
	-	52000386	-	integral	24 ~	2	-	●/▼	size 15 (1)	see previous page
	-	52000380	-	integral	24 =	-	1,6	●/▼		
<b>5/2 - solenoid air operated - differential return (monostable function)</b>										
	51900002	52000002	52100002	integral	24 ~	2	-	●/▼	size 15 (1)	see previous page
	51900004	52000004	52100004	integral	230 ~	2	-	●/▼		
	51900001	52000001	52100001	integral	24 =	-	1,6	●/▼		
	-	52000003	52100003	integral	115 ~	2	1,5	●/▼		
<b>5/2 - solenoid air operated - solenoid air return (bistable)</b>										
	-	52000006	52100006	integral	24 ~	2	-	●/▼	size 15 (1)	see previous page
	-	52000007	-	integral	115 ~	2	1,5	●/▼		
	-	52000008	52100008	integral	230 ~	2	-	●/▼		
	51900005	52000005	52100005	integral	24 =	-	1,6	●/▼		
<b>5/3 - solenoid air operated - pressure held W1</b>										
	-	52000010	52100010	integral	24 ~	2	-	●/▼	size 15 (1)	see previous page
	-	52000009	52100009	integral	24 =	-	1,6	●/▼		
<b>5/3 - solenoid air operated - pressure released W3</b>										
	-	52000090	52100090	integral	24 =	-	1,6	●/▼		
	ports 1-3	port 2	spool valve	type	solenoid pilot valve				connector	subbase
	inst. fitting Ø 6 O.D.	subbase mounted			voltage V	power ~ VA	power = W	(M)		
<b>3/2 NC - solenoid air operated - differential return (monostable function)</b>										
			52000209	integral	24 =	-	1,6	●/▼	size 15 (1)	see previous page
			-	integral	24 ~	2	1,5	●/▼		
		threaded	52000193	integral	24 =	-	1,6	●/▼		
		threaded G 1/8	52000196	integral	230 ~	2	1,5	●/▼		
		subbase mounted	52000189	integral	24 =	-	1,6	●/▼		
		subbase mounted	52000192	integral	230 ~	2	1,5	●/▼		

(M) Manual operator ●/▼ : with impulse /maintained manual operator (1) DIN 43650, 9,4 mm, form C

## OPTIONS AND ACCESSORIES

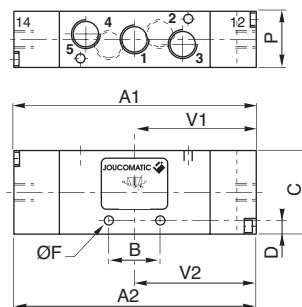
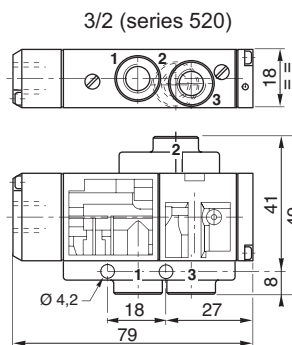
Visualisation and electrical protection module

24V = / ~, code: **88130401**



## DIMENSIONS

### Valves - air operated



5/2

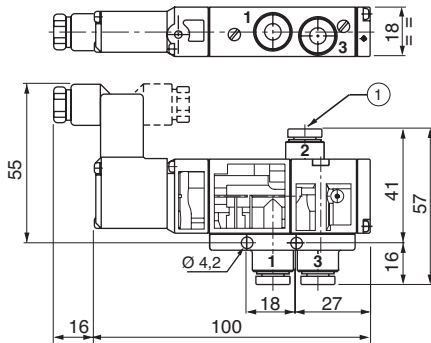
		dimensions (mm)		
		519	520	521
(monostable)	A1	55,5	76	91,5
(bistable)	A2	61	85	100
	B	11	15	22
	C	26	27	31
	D	4	6	6,5
	ØF	3,3	3,3	4,3
	P	15	18	22
	V1	25	33,5	41,5
	V2	30,5	42,5	50

# MINI SPOOL VALVES AND JOINABLE SUBBASES

## DIMENSIONS

### Valves - solenoid air operated

3/2 (series 520)

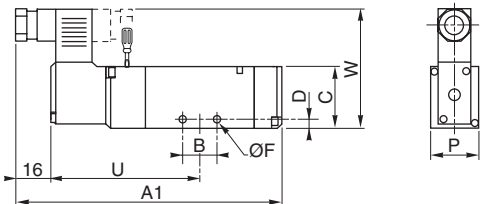


① 3 instant fittings for flexible tube Ø 6 O.D.

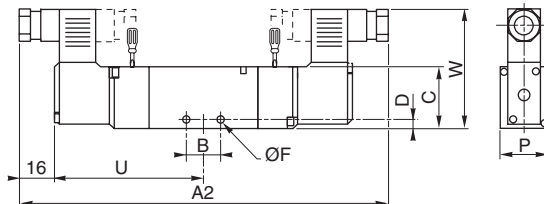
#### Ports

- 1 : Pressure
- 2 : Utilisation
- 3 : Exhaust

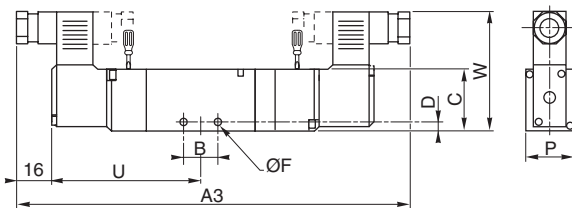
### 5/2 - differential return (monostable function)



### 5/2 - solenoid air return (bistable function)



5/3 - pressure held W1  
5/3 - pressure released W3



#### dimensions (mm)

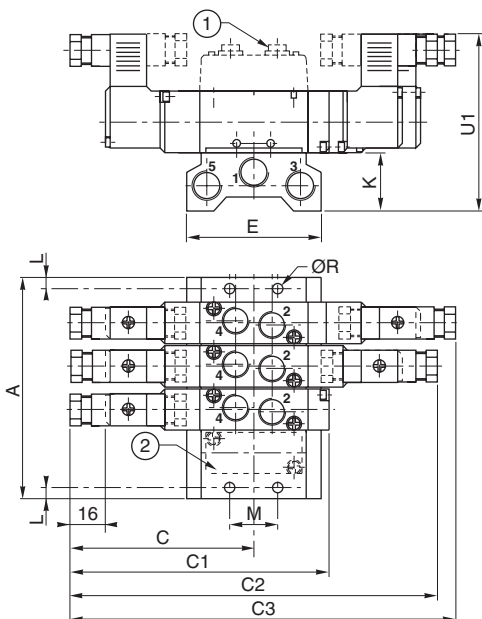
	A1	A2	A3	B	C	D	F	P	U	W
519	97,5	145	153	11	26	4	3,3	15	56,5	52
520	114	161,5	170,3	15	27	6	3,3	18	64,8	54,5
521	131,3	179,5	188,3	22	31	6,5	4,3	22	73,7	56,5

#### Ports

- 1 : Pressure
- 2-4 : Outlet
- 3-5 : Exhaust
- ☒ : manual operator

## Joinable subbases

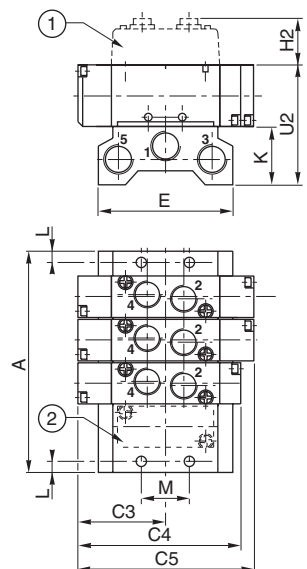
### solenoid air operated



① Connection flange for ports 2-4 with instant fittings for flexible tubing  
Ø 4 mm O.D. (519), Ø 6 mm O.D. (520) and pressure indicators

② blanking plate for subbase

### air operated



	dimensions (mm)			
	519	520	521	
(monostable)	C	72,5	80,7	89,7
(5/2)	C1	97,5	114,2	131,2
(5/3)	C2	145	161,5	179,5
	C3	30,5	42,5	50
	C4	55,5	76	91,5
	C5	61	85	100
	E	46	59	74
	H2	15	23	-
	K	20	25	30
	L	9	5	7
	M	16	21	26
	R	4,5	4,5	5,5
	U1	72	80	87,5
	U2	46	52,5	62

number of valves	dimensions (mm)		
	519	520	521
2	59	59	77
3	75	78	100
4	91	97	123
5	107	116	146
6	123	135	169
7	139	154	192
8	155	173	215
10	187	211	261

# 3/2-5/2-5/3 SPOOL VALVES

551 series  
threaded G 1/4  
integral pilots

air operated  
or solenoid air operated  
threaded or with Namur interface



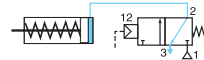
Fluids	air or inert gas, filtered, lubricated or not
Operating pressure	2 to 10 bar or 2 to 8 bar (CNOMO pilot versions)
Pilot pressure	internal piloting or 2 to 10 bar (external piloting)
Ambient temperature	-25°C to +60°C
Flow (Qv at 6 bar) (ANR)	860 l/min (700 l/min for Namur versions)
Body	black anodised aluminium
Internal parts	zamak, stainless steel, POM (polyacetal), aluminium
End plates	PA (polyamide), glass-fibre reinforced
Sealings	NBR (nitrile) + PUR (polyurethane)
Standard voltages DC (=)	24V-48V
AC (-)	24V-48V-115V-230V/50Hz

- Non breathing design, protecting the actuator from ingress of the atmosphere
- Wide temperature range for harsh environments (-25°C to +60°C)
- Reliability: long service life, 30 million cycles
- Can be attached to supply rail for fast pneumatic installation
- Compact dimensions for optimum integration with the actuators

## YOUR SELECTION

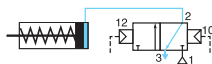
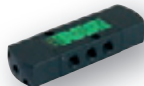
code  
G 1/4

### 3/2 NC - air operated - spring return (monostable function)



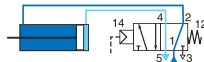
G551A105

### 3/2 NC - air operated - air return (bistable function)



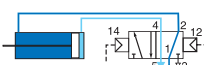
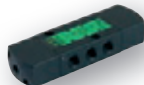
G551A106

### 5/2 - air operated - spring return (monostable function)



G551A117

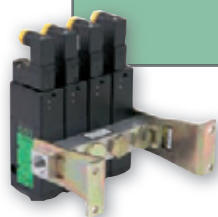
### 5/2 - air operated - air return (bistable function)



G551A118

number of valves

code  
G 1/4



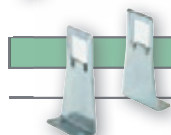
standard supply rail

2	88100034
3	88100035
4	88100036
5	88100037
6	88100038

G 1/4


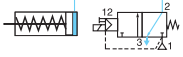

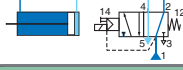

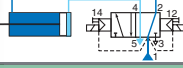

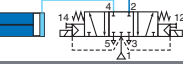
set of brackets (pair)

88100049



# SPOOL VALVES

## YOUR SELECTION

integral pilot versions for actuator piloting	code (1)	~ VA	= W	(M)	connector	standard voltages (V)					
						AC (~) / 50Hz			DC (=)		
						24	48	115	230	24	48
<b>3/2 NC - solenoid air operated - spring return (monostable function)</b>											
		55102005	3,5	2,5	●	size 22 (2)	✓	✓	✓	✓	✓
<b>5/2 - solenoid air operated - spring return (monostable function)</b>											
		55102009	3,5	2,5	●	size 22 (2)	✓	✓	✓	✓	✓
<b>5/2 - solenoid air operated - solenoid air return (bistable)</b>											
		55102011	3,5	2,5	●	size 22 (2)	✓	✓	✓	✓	✓
<b>5/3 - solenoid air operated - pressure held W1</b>											
		55102118	3,5	2,5	●	size 22 (2)	✓	✓	✓	✓	✓

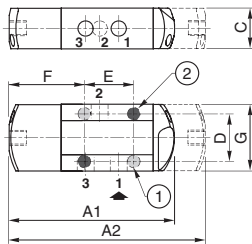
(M) Manual operator ● : with maintained manual operator

(1) When ordering, please specify in addition to the code: the type of current, voltage / frequency

(2) DIN 43650, 11 mm, industry standard B

## DIMENSIONS

### 3/2 NC spool valves - air operated




#### Ports

1 : Pressure

2-4 : Outlet

3-5 : Exhaust

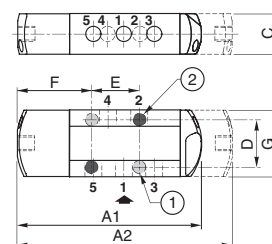
 : manual operator

code

dimensions (mm)

	A1/105	A2/106	C	D	E	F	G
<b>G551A105/106</b>	112	133	27,5	32	33	50,5	45

### 5/2 spool valves - air operated

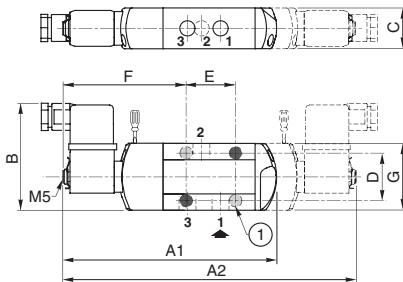


code

dimensions (mm)

	A1/117	A2/118	C	D	E	F	G
<b>G551A117/118</b>	125	146	27,5	32	32	50,5	45

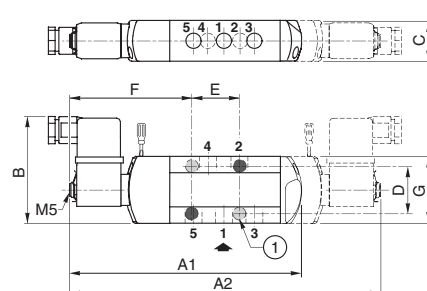
### 3/2 NC spool valves - solenoid air operated integrated pilots



code

	A	B	C	D	E	F	G
<b>55102005</b>	198	72	27,5	32	33	83,5	45

### 5/2 - 5/3 spool valves - solenoid air operated integrated pilots



code

dimensions (mm)

	A1/009	A2/011	B	C	D	E	F	G
<b>55102009/011</b>	157	210	72	27,5	32	32	82,5	45

2 mounting holes:

① 5,3 mm dia. (Spotfacing: 9 mm dia., depth 5 mm)

## OPTIONS AND ACCESSORIES

Stainless steel exhaust protector

G 1/4 - code : **34600419**



Batch of 2 exhaust reducers G 1/8

code : **88100344**



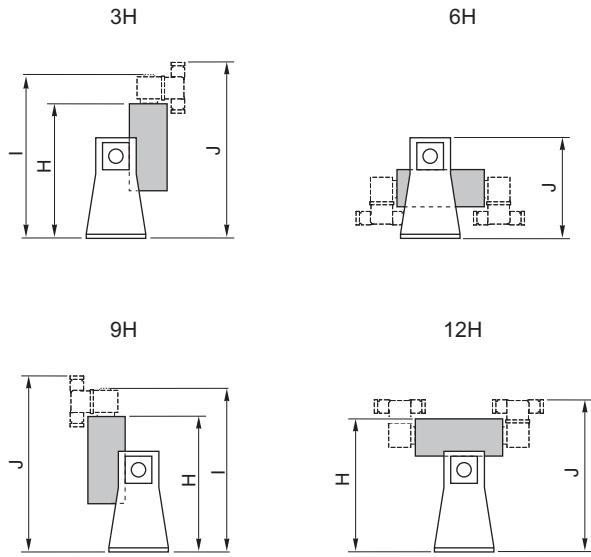
replacement coils (see page 104)



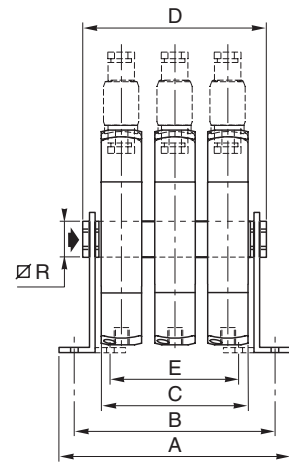
# 3/2-5/2-5/3 SPOOL VALVES

## DIMENSIONS

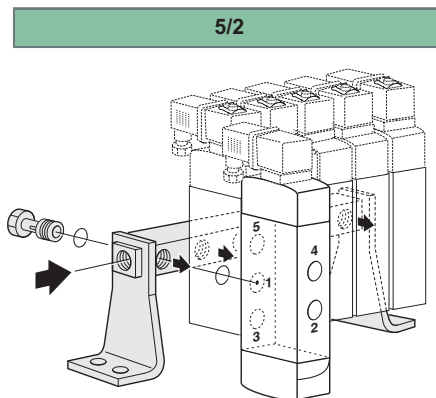
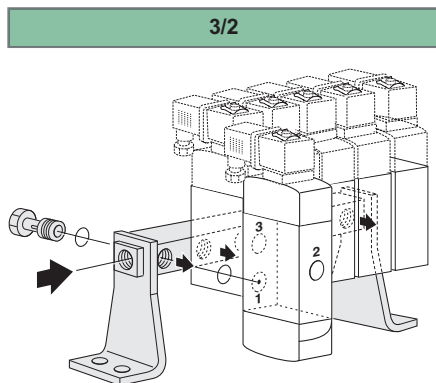
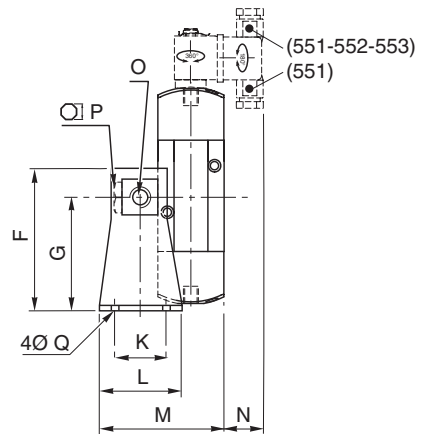
### Supply rail



	dimensions (mm)								
	H		I		J				
	3H	6H	9H	12H	3H	6H	9H	12H	
<b>series 551</b>									
3/2	148	-	148	132	181	194	92	194	159
5/2	147	-	147	132	181	194	92	194	159
<b>series 552-553</b>									
3/2	202	-	202	197	238	260	134	260	217
5/2	202	-	202	197	238	260	134	260	217



number of valves	dimensions (mm)															
	A	B	C	D	E	F	G	K	L	M	N	O	P	Q	R	
<b>series 551</b>																
2	108	92	55	78	42	92	75	35	50	82	27	G3/8	19	6,5	23	
3	136	120	83	106	70	92	75	35	50	82	27	G3/8	19	6,5	23	
4	164	148	111	134	98	92	75	35	50	82	27	G3/8	19	6,5	23	
5	192	176	139	162	126	92	75	35	50	82	27	G3/8	19	6,5	23	
6	220	204	167	190	154	92	75	35	50	82	27	G3/8	19	6,5	23	
7	248	232	195	218	182	92	75	35	50	82	27	G3/8	19	6,5	23	
8	276	260	223	246	210	92	75	35	50	82	27	G3/8	19	6,5	23	
<b>series 552-553</b>																
2	136	116	81	117	-	134	108	52	75	125,8	20	G3/4	27	9	32	
3	177	157	122	158	-	134	108	52	75	125,8	20	G3/4	27	9	32	
4	218	198	163	199	-	134	108	52	75	125,8	20	G3/4	27	9	32	
5	259	239	204	240	-	134	108	52	75	125,8	20	G3/4	27	9	32	
6	300	280	245	281	-	134	108	52	75	125,8	20	G3/4	27	9	32	
7	341	321	286	318	-	134	108	52	75	125,8	20	G3/4	27	9	32	
8	382	362	327	358	-	134	108	52	75	125,8	20	G3/4	27	9	32	



# SPOOL VALVES

## 3/2 - 5/2 - 5/3

### MANUALLY OPERATED





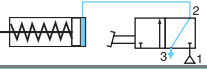

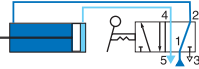





#### G 1/4



Fluids	air or inert gas, filtered, lubricated or not
Operating pressure	0 to 10 bar, 2 to 10 bar (foot)
Ambient temperature	-25°C to +60°C, -20°C to +60°C (foot)
Flow (Qv at 6 bar) (ANR)	refer to selection table
Body	black anodised aluminium, black polyethylene (foot)
Covering cap (foot)	yellow polyethylene
Internal parts	zamak, stainless steel, POM (polyacetal), aluminium anodised aluminium alloy, stainless steel, brass (foot)
Sealings	NBR (nitrile) + PUR (polyurethane) NBR (nitrile) (foot)

- Reliable and robust product thanks to the metal body and controls
- Direct control of single acting and double acting cylinders, up to a diameter of 100 mm
- Wide range of temperatures to suit many semi-automated applications
- Manually operated versions used for machine safety
- Pedal version with large opening to position the foot

## YOUR SELECTION

	flow at 6 bar (ANR) l/min	code	type	dimensions (mm)		
				A	B	C
<b>3/2 - lever control</b>						
		detented lever with 2 positions	860	<b>55102088</b>	1	108 112,5 -
		lever-spring	860	<b>55102089</b>	1	108 112,5 -
<b>3/2 - button control</b>						
		button spring	860	<b>55102082</b>	4	see page 75
		button push-pull	860	<b>55102083</b>	4	
<b>3/2 - pedal control</b>						
		pedal-spring	860	<b>55102091</b>	6	see page 75
<b>5/2 - lever control</b>						
		detented lever with 2 positions	860	<b>55102092</b>	2	108 125 -
		detented lever with 2 positions	1610	<b>55200036</b>	2	108 125 -
		lever-spring	860	<b>55102093</b>	2	108 125 -
<b>5/2 - pedal control</b>						
		pedal 2 positions	860	<b>55102094</b>	7	see page 75
		pedal 2 positions	655	<b>ZF2FA400OG00000</b>	3	145 140 245
		pedal-spring	860	<b>55102095</b>	7	see page 75
<b>5/2 - button control</b>						
		button push-pull	860	<b>55102086</b>	4	see page 75

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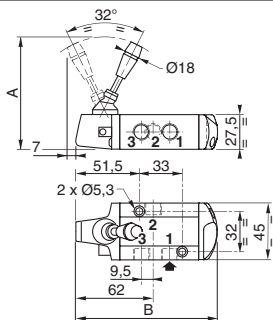
# MANUALLY OPERATED SPOOL VALVES

## YOUR SELECTION

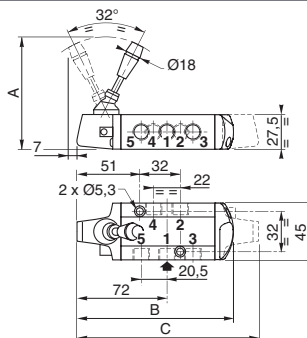
	flow at 6 bar (ANR) l/min	code	type	dimensions (mm)		
				A	B	C
<b>5/3 - lever control - W1 pressure held</b>						
	detented lever with 3 positions (W1)	760	<b>55102096</b>	2	108	146,5
	detented lever with 3 positions (W1)	1610	<b>55200038</b>	2	108	146,5
	lever with 3 positions, spring return at centre (W1)	760	<b>55102097</b>	2	108	146,5
	lever with 3 positions, spring return at centre (W1)	1610	<b>55200039</b>	2	108	146,5
<b>5/3 - lever control - W3 pressure release</b>						
	detented lever with 3 positions (W3)	760	<b>55102098</b>	2	108	146,5
	lever with 3 positions, spring return at centre (W3)	760	<b>55102099</b>	2	108	146,5

## DIMENSIONS

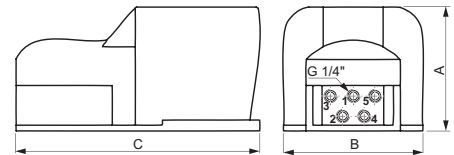
**Type 1**



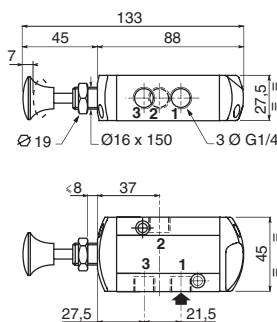
**Type 2**



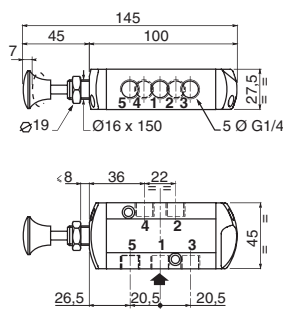
**Type 3**



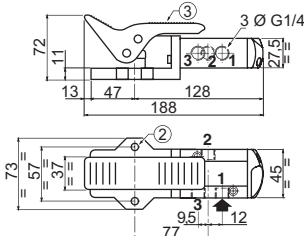
**Type 4**



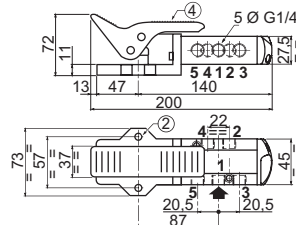
**Type 5**



**Type 6**



**Type 7**



**Ports**  
 1 : Pressure  
 2-4 : Outlet  
 3-5 : Exhaust

# 3/2 MICROVALVES

## 307 series

### MANUALLY OPERATED

using standard Ø 22 mm heads  
with instant fittings for tube Ø 4 mm O.D.  
or G1/8



Fluids	air filtered, lubricated or not
Operating pressure	0 to 8 bar
Ambient temperature	-5°C to +60°C
Flow (Qv at 6 bar) (ANR)	112 l/min
Body	zamak
Exhaust	non-connectable

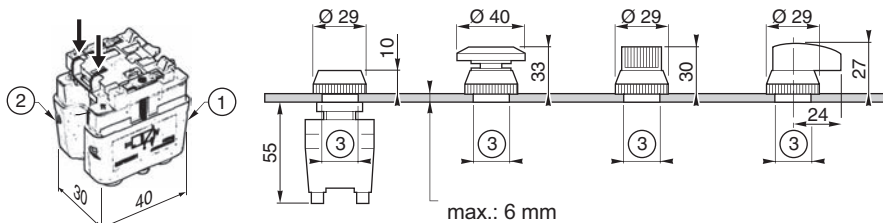
- Option of metal or plastic buttons
- Simple, quick assembly on panels
- Wide choice of pilot operators
- Possibility of linking 2 NC functions using the same pilot operator
- Microvalve button has a safe and robust fitting

## YOUR SELECTION

description	type	metal button			plastic button			
		colour	code	(metal) code	code	(plastic) code	code (1)	
	flush push button	impulse	black	<b>88130757</b>	88130754	black	<b>88130745</b>	88130753
			green	<b>88130758</b>		green	<b>88130744</b>	
			red	<b>88130759</b>		red	<b>88130743</b>	
	mushroom button Ø 40	maintained (push-turn)	red	<b>88130770</b>	88130754	red	<b>88130740</b>	88130753
			red	<b>88130762</b>		red	<b>88130741</b>	
	impulse	black	<b>88130763</b>	black		<b>88130742</b>		
		switch	2 fixed positions	black		<b>88130771</b>	black	
	key button	key removal at 0 and 1	black	<b>88130761</b>	88130754	black	-	88130753
			switch	2 fixed positions		black	<b>88130760</b>	
	lever switch	3 fixed positions	black	<b>88130767</b>	88130754	black	<b>88130736</b>	88130753
		3 positions self centering	black	<b>88130766</b>		black	<b>88130735</b>	

(1) a microvalve comprises of one or two pneumatic modules: Separated pneumatic modules, see below

## DIMENSIONS



① left-hand module ② right-hand module ③ drill hole Ø 22,2 mm

type	action on module	
	left	right
3 fixed positions	0 → 0	not actuated
	1 → 1	not actuated
	2 → 2	actuated
3 positions self centering	0 → 0	not actuated
	1 → 1	not actuated
	2 → 2	actuated

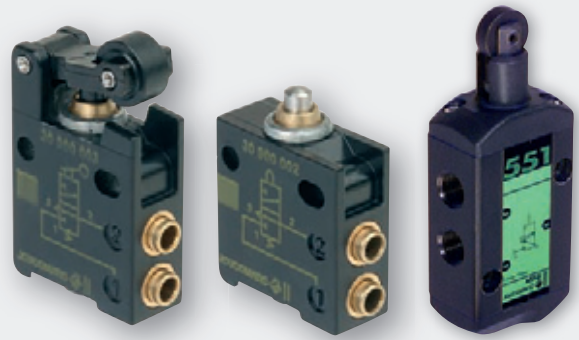
## OPTIONS AND ACCESSORIES

Intermediary subbase <b>88130775</b>	Reducing adapter <b>88130755</b>	Separated pneumatic modules
		instant fittings 4 mm O.D.
		NC <b>30701001</b>
		NO <b>30701002</b>
		threaded G1/8
		NC <b>30701005</b>
		NO <b>30701006</b>

# 3/2 MICROVALVES

## MECHANICALLY OPERATED

with instant fittings for tube Ø 4 mm O.D.  
or G1/8 or G1/4



- Wide range of operators
- Lever for front and side action
- Quick fittings for fast installation

	series 308	series 309	series 310	series 550	series 551
Fluids	air filtered, lubricated or not				
Operating pressure	0,1 to 8 bar	0 to 8 bar	0 to 10 bar	0 to 10 bar	0 to 10 bar
Ambient temperature	-5°C to +50°C	-5°C to +50°C	-5°C to +60°C	-10°C to +60°C	-25°C to +60°C
Flow (Qv at 6 bar) (ANR)	140 l/min	140 l/min	280 l/min	200 l/min	860 l/min
Body	Body	zamak	zamak	zamak	anodized aluminium
Sealings	NBR (nitrile)				NBR (nitrile) + PUR (polyurethane)

## YOUR SELECTION

	description	operating effort			Operating head ALONE	code		type
		2 bar	daN 5 bar	8 bar		complete microvalve with instant fittings for tube Ø 4 mm O.D.	tapped G1/8	
<b>NC = normally closed</b>								
	simple push	1	1,7	2,5	-	<b>30900002</b>	-	<b>1</b>
	lever with plastic roller	0,5	0,9	1,3	-	<b>30900003</b>	-	<b>2</b>
	lever with metal bearing roller	0,5	0,9	1,3	-	<b>30900001</b>	-	<b>2</b>
	one way trip plastic roller (lifetime: one million cycles)	0,5	0,9	1,3	-	<b>30900004</b>	-	<b>3</b>
	push button with thread	1	1,7	2,5	-	<b>30900006</b>	-	<b>4</b>
	lever with metal bearing roller	-	-	1,2	<b>88130802</b> (1)	<b>30800010</b>	<b>30800016</b>	<b>5</b>
	lever with plastic roller	-	-	0,4 to 1,2	<b>88130803</b> (1)	<b>30800011</b>	<b>30800017</b>	<b>6</b>
	lever with ball bearing roller	-	-	0,4 to 1,2	<b>88130804</b> (1)	<b>30800012</b>	<b>30800018</b>	<b>6</b>
	flexible roller	-	-	0,3 to 1,2	<b>88130807</b> (1)	<b>30800027</b>	<b>30800030</b>	<b>12</b>
	rotating head alone	-	-	-	-	<b>30800001</b>	<b>30800005</b>	<b>8</b>
	valve alone				-	-	<b>32000001</b>	-
					-	<b>31090002</b>	<b>31090001</b>	<b>9</b>
	Lever roller acetal				<b>88131001</b>	<b>31000011</b>	-	-
	lever roller metal				<b>88131005</b>	<b>31000013</b>	<b>31000006</b>	<b>10</b>

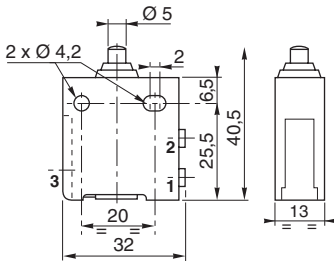
(1) The different levers are fitted to the valve with a head with a side spindle (code **30800001** or **30800005**)

	operators		pilot effort daN	code		type
	pilot	return		threaded G1/4	threaded G1/8	
<b>3/2 - roller pilot</b>						
	roller	spring	4,8	<b>55102084</b>	-	<b>14</b>
<b>3/2 - lever control</b>						
	roller-lever	spring	2	-	<b>55000046</b>	<b>11</b>
	tappet	spring	3	-	<b>55000047</b>	<b>13</b>
<b>5/2 - lever control</b>						
	roller-lever	spring	2	-	<b>55000012</b>	<b>7</b>

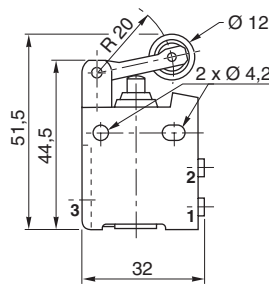
# 3/2 MECHANICALLY OPERATED MICROVALVES

## DIMENSIONS

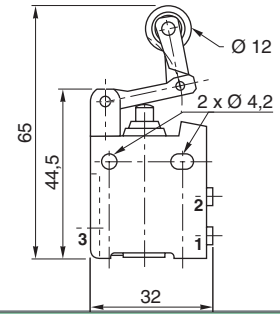
**Type 1**



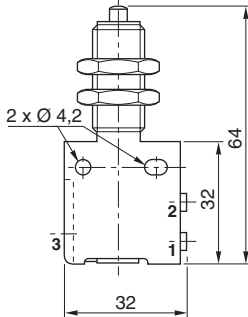
**Type 2**



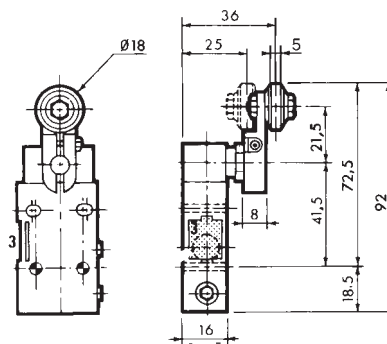
**Type 3**



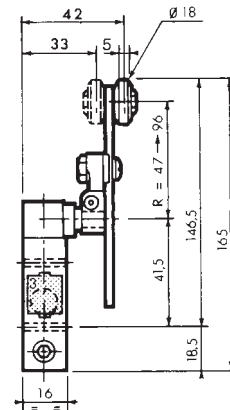
**Type 4**



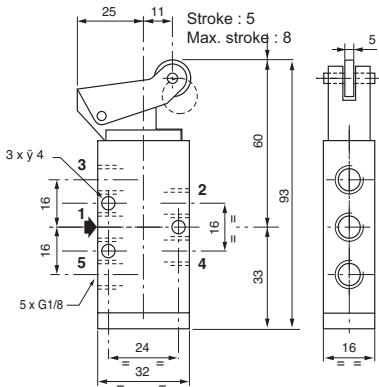
**Type 5**



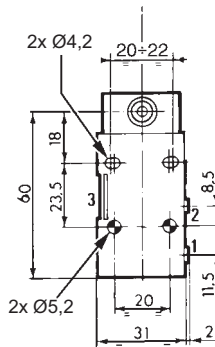
**Type 6**



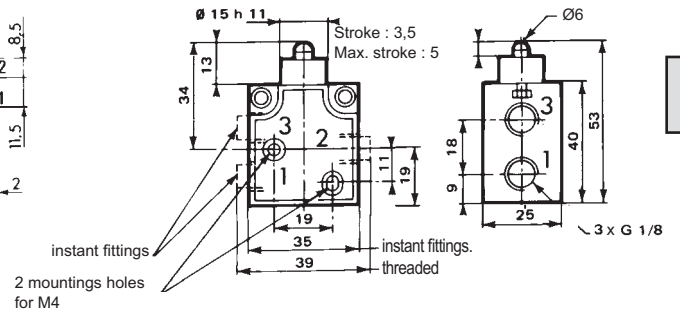
**Type 7**



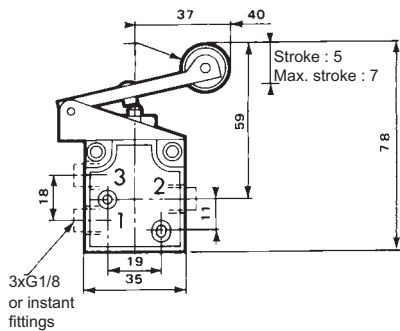
**Type 8**



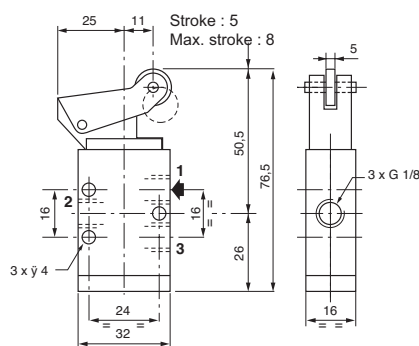
**Type 9**



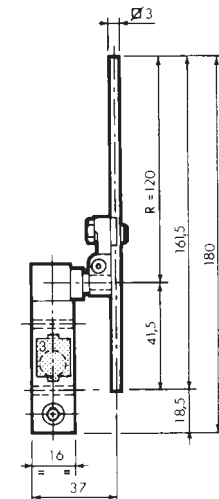
**Type 10**



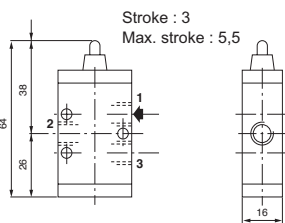
**Type 11**



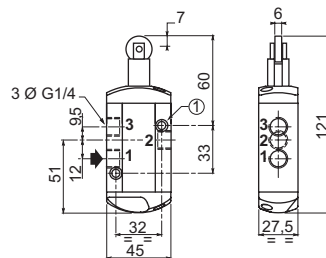
**Type 12**



**Type 13**



**Type 14**



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# MINI SPOOL VALVES

## 3/2-5/2

### 550 series

#### MANUALLY OPERATED

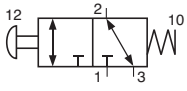
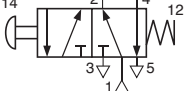
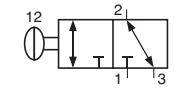
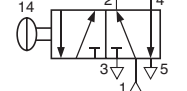
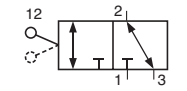
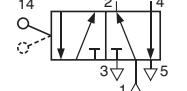
#### G1/8



Fluids	air filtered, lubricated or not
Operating pressure	0 to 10 bar
Ambient temperature	-10°C to +60°C
Flow (Qv at 6 bar) (ANR)	200 l/min
Body	anodized light alloy

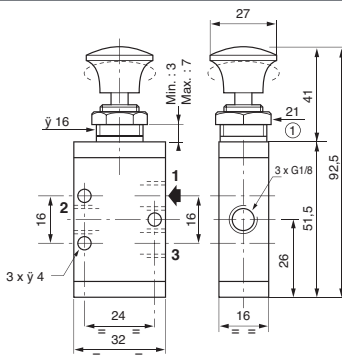
- 3/2 spool valves can be used as a 3/2 NC or 3/2 NO, by connecting ports as indicated below
- Possible mounting panel (percing diameter 16,5)

## YOUR SELECTION

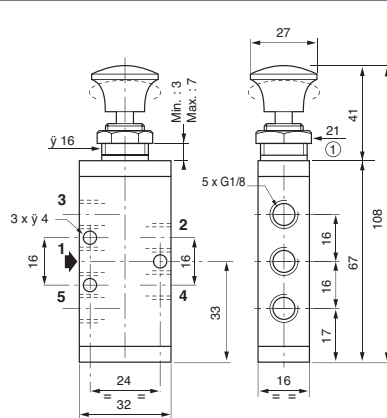
operators		code	
control	return	return	5/2
		type	type
push button	spring	 <b>55000040</b>	 <b>55000009</b>
button push-pull		 <b>55000039</b>	 <b>55000010</b>
lever - lever detented		 <b>55000043</b>	 <b>55000011</b>

## DIMENSIONS

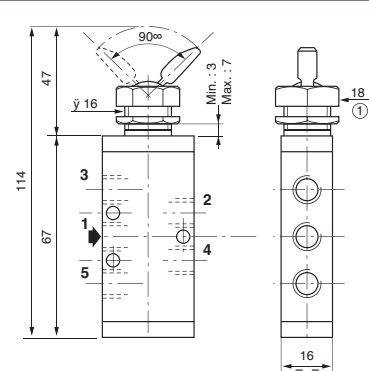
Type 1



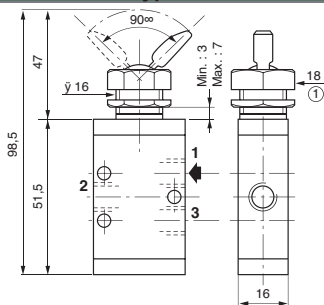
Type 3



Type 4



Type 2



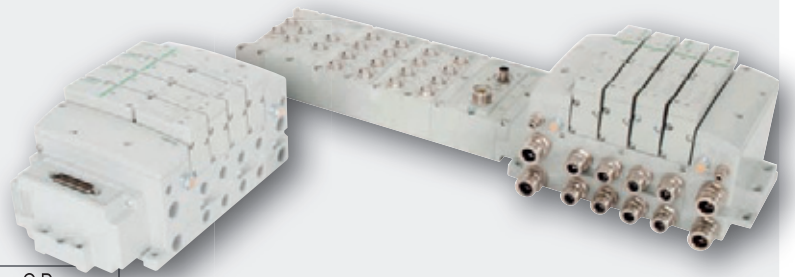
**Ports 3/2 NC**  
 1 : Pressure  
 2 : Outlet  
 3 : Exhaust

**Ports 3/2 NO**  
 1 : Exhaust  
 2 : Outlet  
 3 : Pressure

**Ports 5/2**  
 1 : Pressure  
 2-4 : Outlet  
 3-5 : Exhaust

# VALVE ISLANDS

## 26 mm - 503 series

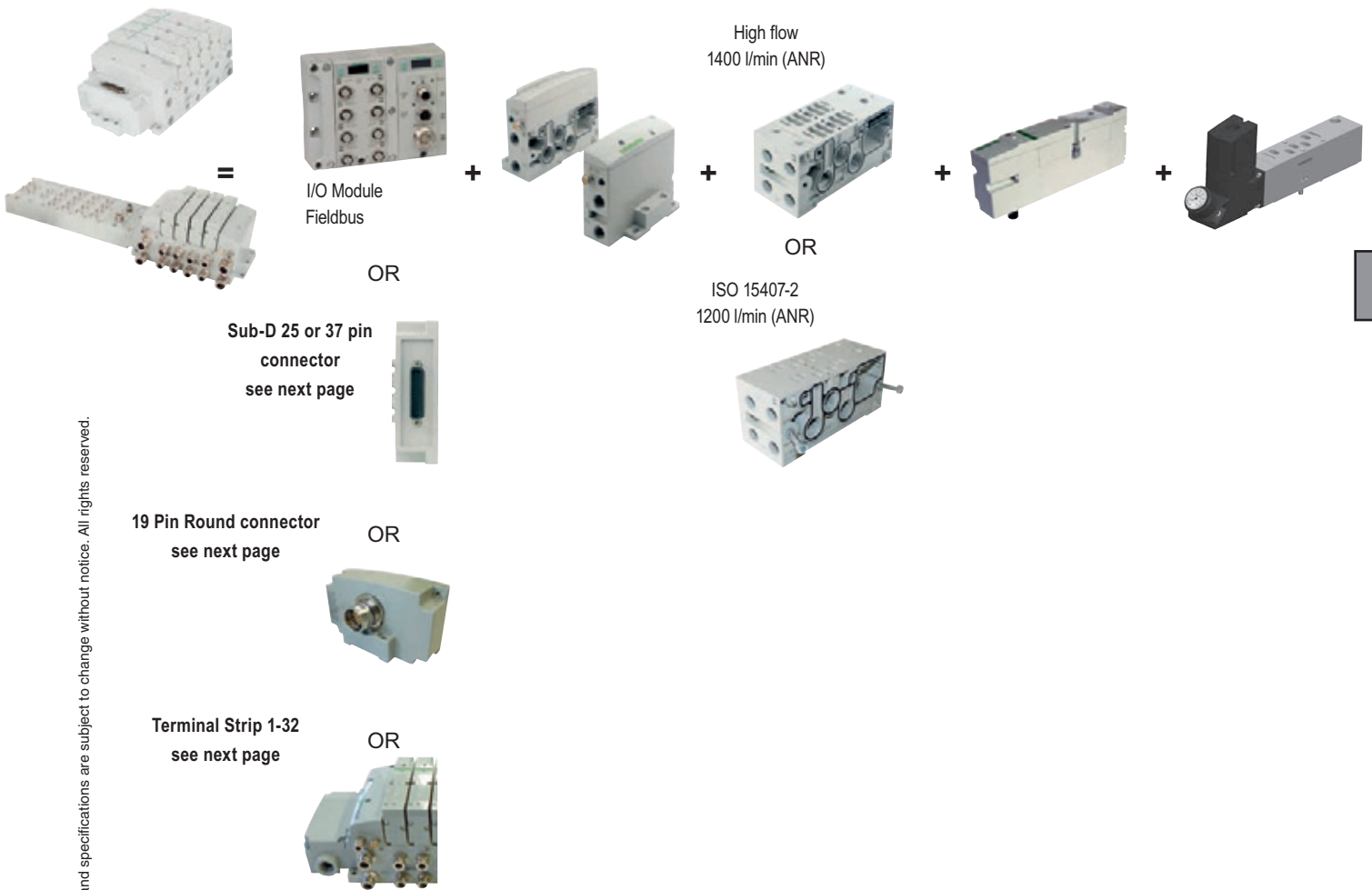


Connection ports 2-4	G 3/8 or with instant fittings Ø10 /12 mm O.D.			
Fluids	air or inert gas			
Operating pressure	-0,95 to 8 bar (external pressure supply - except for 3/2) 2 to 8 bar (for 3/2)			
Pilot pressure	2 to 8 bar			
Ambient temperature	-10°C to +50°C			
Flow (Qv at 6 bar) (ANR)	2 x 3/2 NC-NO 5/2 5/3 W1 5/3 W2 5/3 W3	Technology	High flow subbase	ISO 15407-2 subbase
		Rubber packed spool	1000-950 l/min	900 l/min
			1400 l/min	1200 l/min
			1400 l/min	1200 l/min
			1300 l/min	1100 l/min
600 l/min	600 l/min			
Sealings	NBR (nitrile) + PUR (polyurethane)			
Power	1,4 W / 1,7 W (hot/cold)			
Standard voltage	24 V DC (=)			

- High performance, compact size, 26 mm width spool valves and a flow of up to 1400 l/min
- Rubber packed spool technology for high flow and all functions available
- The same spool valve mounted on high flow or ISO 15407-2 double joinable subbase

### HOW TO ORDER

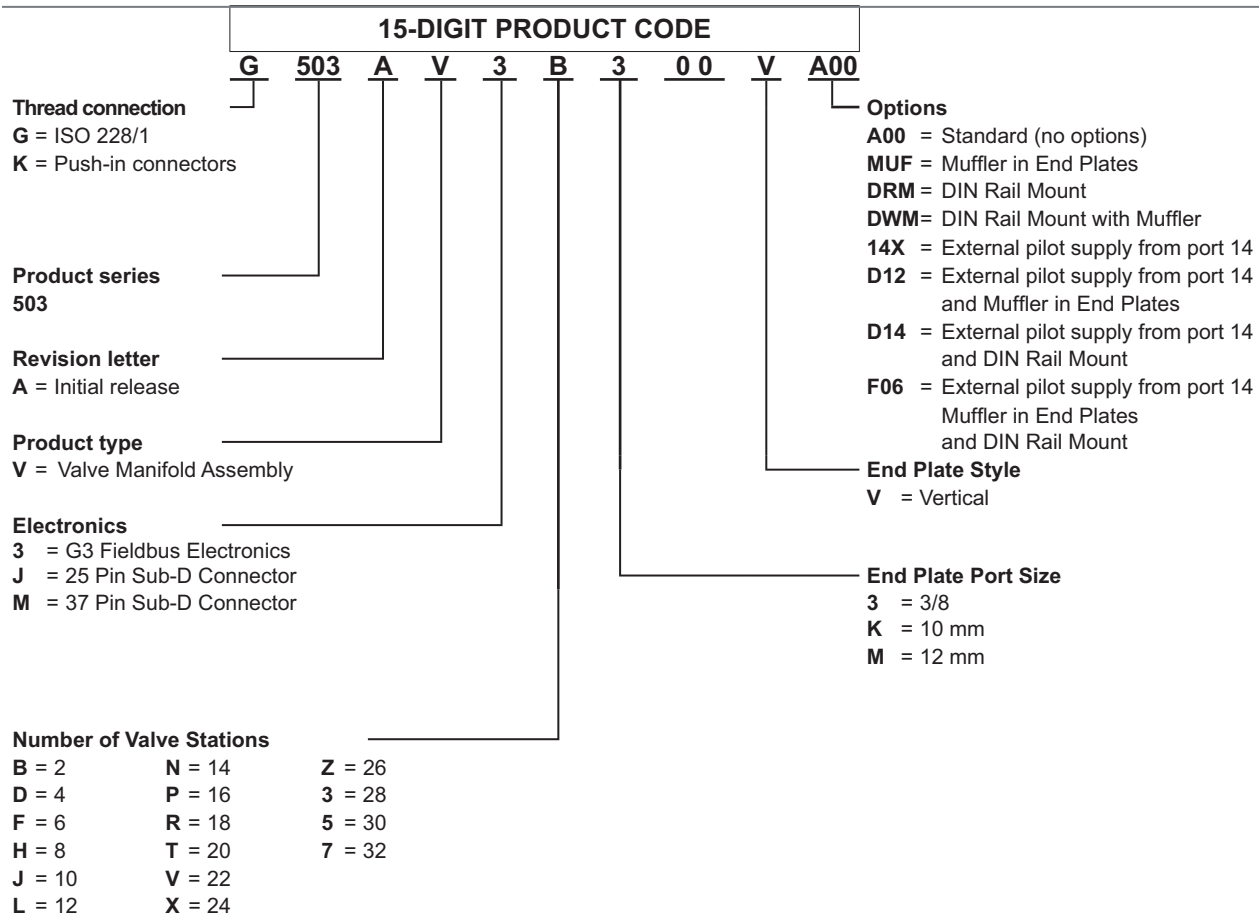
Assembled island	Electrical connection	end plates	dual subbase	spool valve	sandwich accessories
	see next page	see next page	see next page	see page 80	see page 80



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# SOLENOID AIR OPERATED VALVE ISLANDS

## YOUR SELECTION - MANIFOLD ASSEMBLY



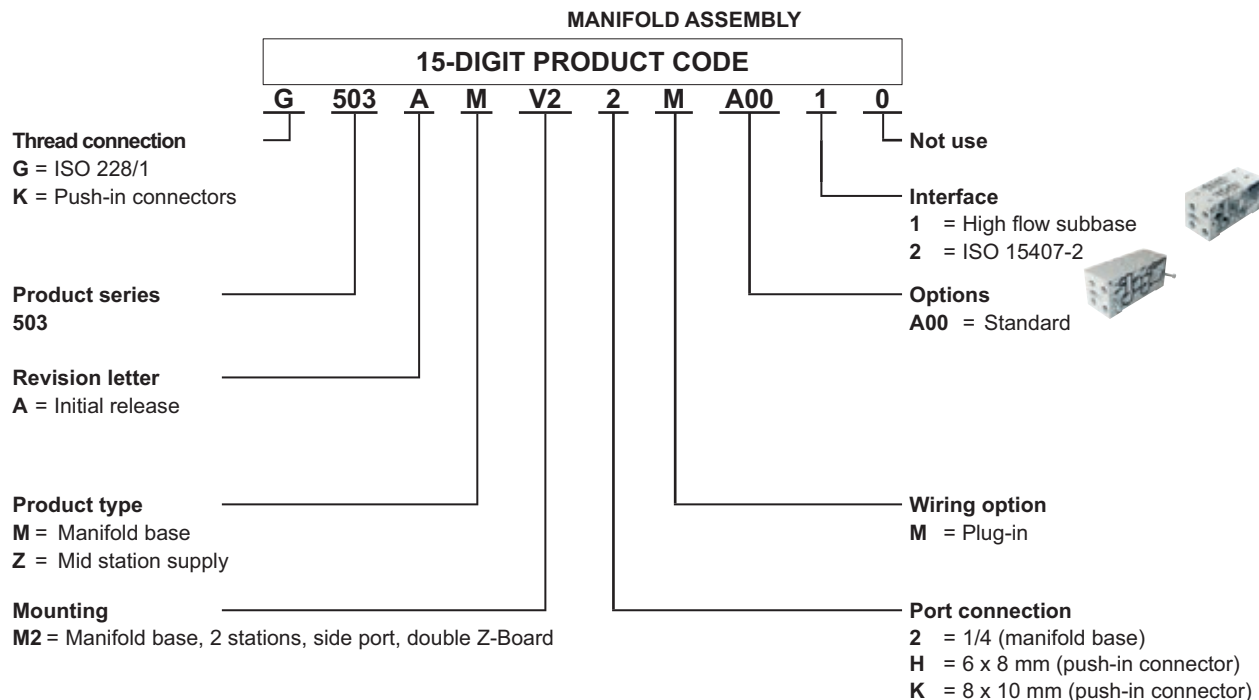
### Maximum Solenoid Outputs

Terminal Strip 1-32	25 Pin Sub-D Connector	37 Pin Sub-D Connector	19 Pin Round Connector	G3 Fieldbus Electronics
32	22	32	16	32

\*Note: Maximum number of valve stations is determined by:

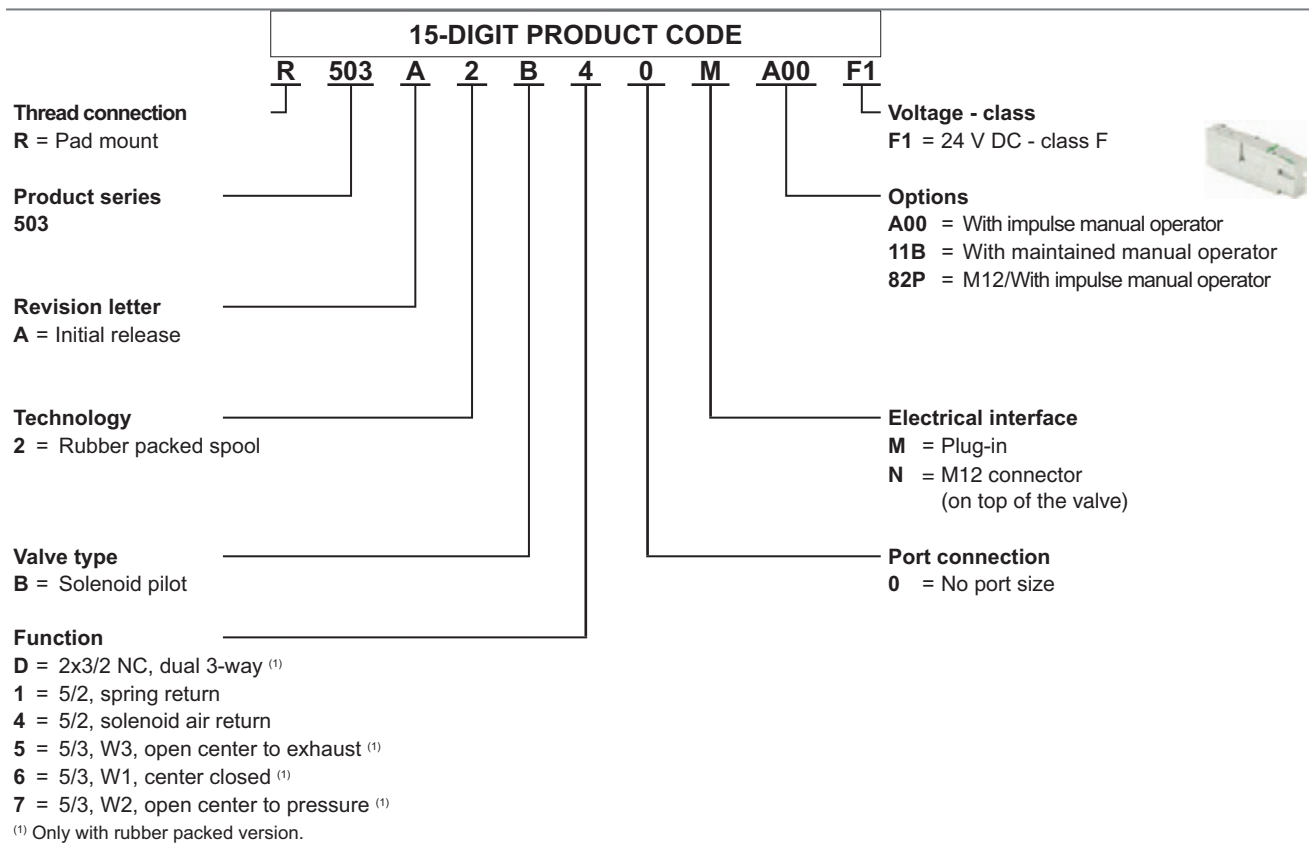
- The electrical connection type
- The valve type: single and/or double solenoid valves
- Combination of all stations cannot exceed 32

## YOUR SELECTION - SUBBASES

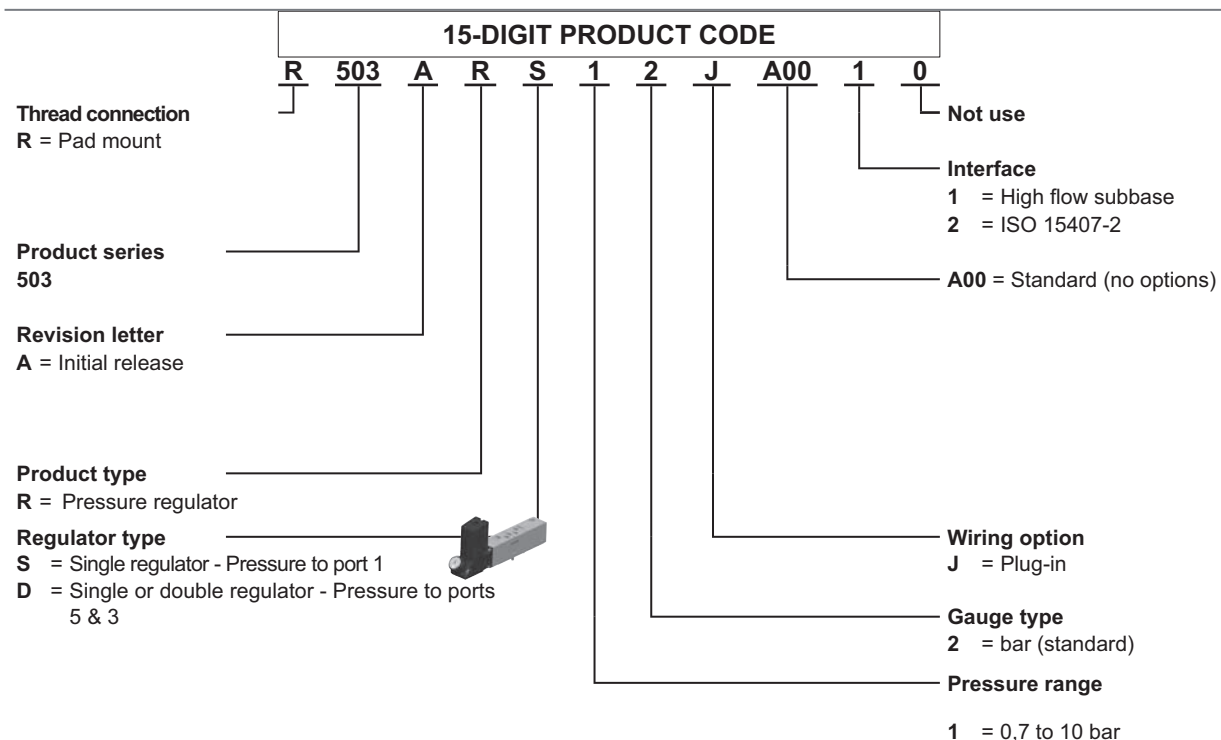


# SOLENOID AIR OPERATED VALVE ISLANDS

## YOUR SELECTION - VALVES



## YOUR SELECTION - REGULATORS





# SOLENOID AIR OPERATED VALVE ISLANDS

## YOUR SELECTION - G3 ELECTRONICS

**G3 EP1 00 R 0 STD**

### Electronics Protocols

- CO1 = CANopen®
- DN1 = DeviceNet™
- EM1 = EtherNet ModBus®/TCP
- EP1 = EtherNet/IP™
- PT1 = PROFIBUS DP
- PN1 = PROFINET
- DS2 = Backplane extension Valve Manifold
- DS3 = Backplane extension I/O Assembly

### Number of I/O Modules

- 00 = 0    09 = 9
- 01 = 1    10 = 10
- 02 = 2    11 = 11
- 03 = 3    12 = 12
- 04 = 4    13 = 13
- 05 = 5    14 = 14
- 06 = 6    15 = 15
- 07 = 7    16 = 16
- 08 = 8

### Left Mounting

- D = w/ Backplane extension Out
- H = w/ Terminating Resistor

### Special Options

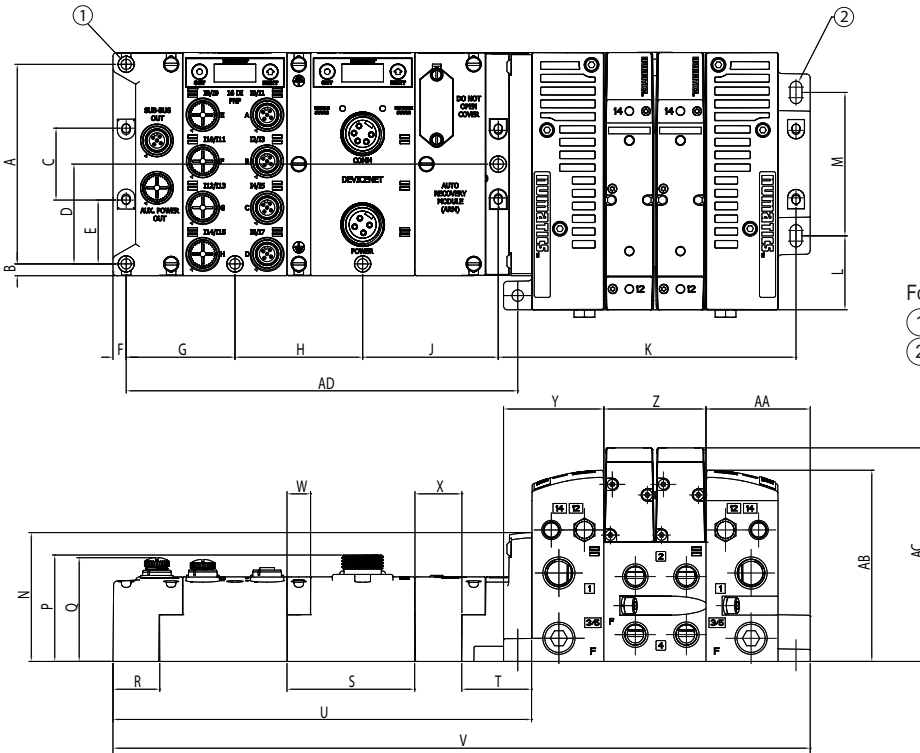
- STD = Standard
- DRM = DIN Rail Mounting

### Modification

- 0 = Initial release

## DIMENSIONS

### Manifold assembly (G3 fieldbus)



For use with optional DIN rail hardware

- ① Clearance holes for M5 or 10 mm dia. screws
- ② 6,3 wide slot (2) places

A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	U
105,5	6,3	38	52,8	33,8	7	57,5	67,5	71,7	157,4	39,1	75,8	68,1	56,3	54	24,8	67,5	36,9	221,3
V	W	X	Y	Z	AA	AB	AC	AD										
368,6	12,5	24,8	53	54	55,1	101,1	112,9	207										

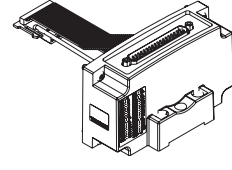
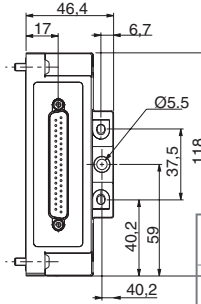
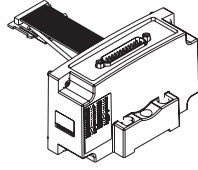
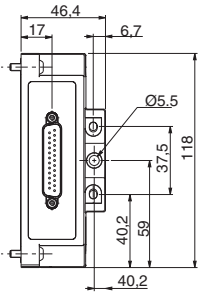
# SOLENOID AIR OPERATED VALVE ISLANDS

## DIMENSIONS

### Multiwire electrical connections

#### 25 Pin Sub-D Connector Kit

#### 37 Pin Sub-D Connector Kit



<b>P599AE428441001</b>	25 PIN SUB-D ASSEMBLY WITHOUT DIN RAIL
<b>P599AE428441002</b>	25 PIN SUB-D ASSEMBLY WITH DIN RAIL
<b>NDB25F22U02MSB3</b>	CABLE LENGTH 2 m
<b>NDB25F22U05MSB3</b>	CABLE LENGTH 5 m
<b>NDB25F22U10MSB3</b>	CABLE LENGTH 10 m

<b>P599AE428442001</b>	37 PIN SUB-D ASSEMBLY WITHOUT DIN RAIL
<b>P599AE428442002</b>	37 PIN SUB-D ASSEMBLY WITH DIN RAIL
<b>NDB37F22U02MSB3</b>	CABLE LENGTH 2 m
<b>NDB37F22U05MSB3</b>	CABLE LENGTH 5 m
<b>NDB37F22U10MSB3</b>	CABLE LENGTH 10 m

### Digital I/O 5-pin M12 Modules

- With short circuit protection integrated

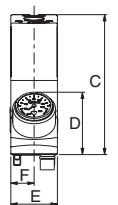
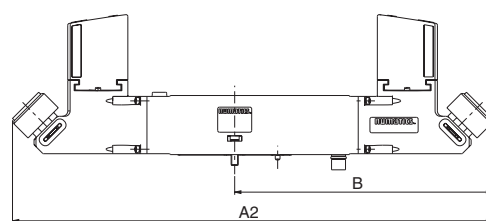
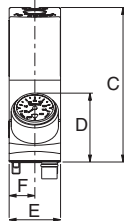
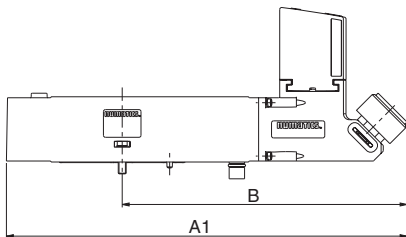
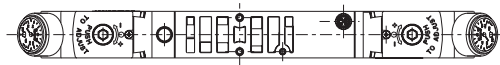
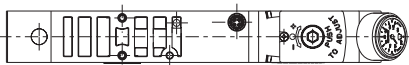


	signal type	code
Inputs	8 Inputs	240-206
	16 Inputs	240-205

### Sandwich Pressure Regulators

#### Single Regulator

#### Double Regulator



dimensions (mm)

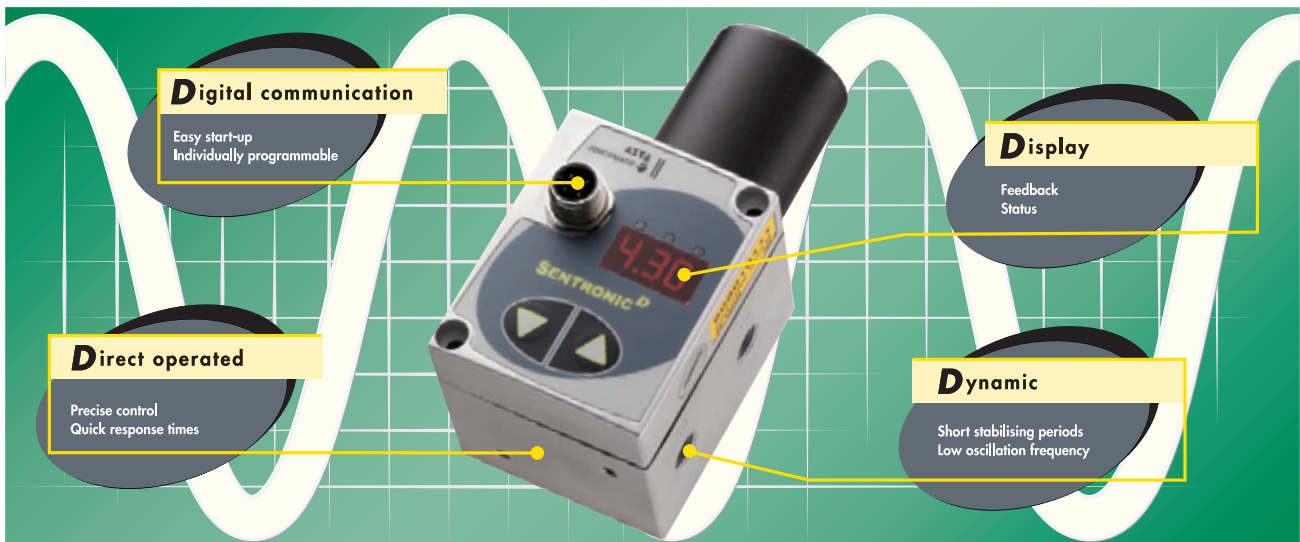
A1	A2	B	C	D	E	F
202,7	268,2	144,1	78,2	34,8	26	13

# PROPORTIONAL VALVES



## YOUR SELECTION

type	body		pipe size G					max. pressure bar	flow at 6 bar (ANR) l/min	type of application			visual	series	page
	subbase mounting	threaded	1/8	1/4	3/8	1/2	1			static	dynamic	step			
SENTRONIC <sup>D</sup>		●	●	●				10	470 ... 1300	●	●	●	<b>1</b>	608-609	83
	●		●	●											
Pulstronic II		●		●				12	470	●		●	<b>2</b>	605	85
SENTRONIC <sup>PLUS</sup>		●	●	●		●	●	20	210 ... 5600	●	●	●	<b>3</b>	614	86



# PROPORTIONAL VALVE PRESSURE REGULATOR WITH DIGITAL ELECTRONICS


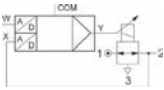
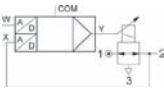
SENTRONIC<sup>D</sup>  
threaded 1/8", 1/4" or  
subbase-mounted version



Fluids	air, inert gas, filtered at 50 µm, without condensate, lubricated or not
Pressure range	refer to selection table
Fluid temperature	0°C to +60°C
Ambient temperature	0°C to +50°C
Flow (Qv at 6 bar)	G 1/8 = 470 l/min, G 1/4 = 1300 l/min
Electrical setpoint	0-10 V / 4-20 mA
Sensor output	0-10 V / 4-20 mA
Hysteresis	< 1 % of span
Linearity - repeatability	< 0,5 % of span
Body	aluminium
Sealings	FPM (fluoroelastomer) and NBR (nitrile)
Standard voltage DC (=)	24 V ± 10 %

- Digital communication and control technology
- Integrated display with push-buttons
- Direct operated valve
- Dynamic behaviour
- Can be used on a standard compressed air network (50 µm filtration)

## YOUR SELECTION

	pressure range	maximum allowable pressure	max. power	pipe size	flow at 6 bar (ANR)	code	
	bar	bar	W	G	l/min	setpoint 0-10V	setpoint 4-20mA
<b>threaded body</b>							
	0 - 6	9	21	1/8	470	<b>608060111</b>	<b>608062311</b>
	0 - 10	13				<b>608010111</b>	<b>608012311</b>
	0 - 6	9	40	1/4	1300	<b>609060111</b>	<b>609062311</b>
	0 - 10	13				<b>609010111</b>	<b>609012311</b>
<b>subbase-mounted</b>							
	0 - 6	9	21	1/8	470	<b>608260111</b>	<b>608262311</b>
	0 - 10	13				<b>608210111</b>	<b>608212311</b>
	0 - 6	9	40	1/4	1300	<b>609260111</b>	<b>609262311</b>
	0 - 10	13				<b>609210111</b>	<b>609212311</b>

## OPTIONS AND ACCESSORIES

Female M12 connector cable entry Ø 6 bis 8 mm:  
straight - code:  
**88100256**

Supply cable 2m ;  
5x0,25mm<sup>2</sup>, right-angle  
connector- code:  
**88100727**

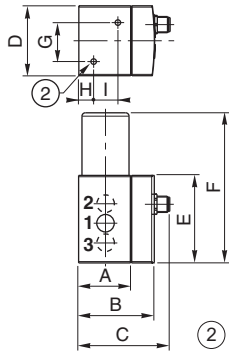
RS-232 converter, 2 m cable  
with 9 pin Sub-D connector for  
PC link  
**88100732**

Setpoint 0-20 mA  
code: sixth digit = 1  
e.g.: **608011111**

Sensor output:  
0-20mA: code: 7th digit=2  
4-20mA: code: 7th digit= 3  
e.g.: **608010211**

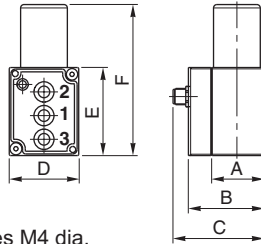
## DIMENSIONS

### threaded connections



② 2 mounting holes M4 dia.

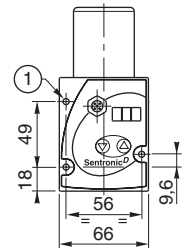
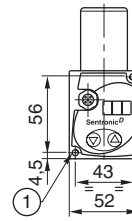
### subbase-mounted version



### front mounting

G 1/8

G 1/4



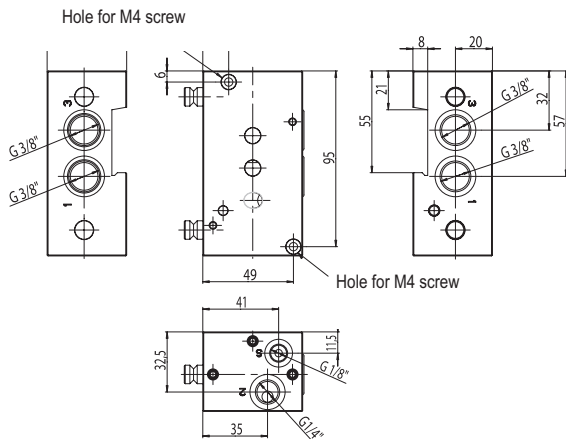
① Mounting holes for M4 screws

code

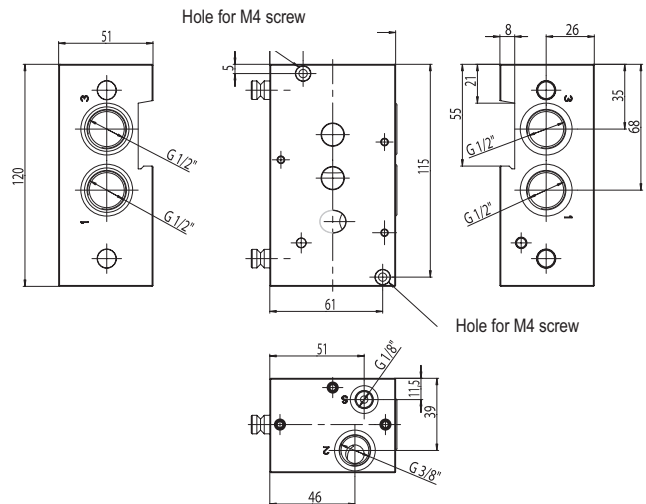
dimensions  
mm

		A	B	C	D	E	F	G	H	I
<b>Threaded body</b>										
608060111	608062311	38,5	56,3	67,8	52	65	111,5	29	11	18
608010111	608012311	38,5	56,3	67,8	52	65	111,5	29	11	18
609060111	609062311	48,5	66,3	77,8	66	85	137,5	40	13	24
609010111	609012311	48,5	66,3	77,8	66	85	137,5	40	13	24
<b>Subbase-mounted version</b>										
608260111	608262311	38,5	56,3	67,8	52	65	111,5	-	-	-
608210111	608212311	38,5	56,3	67,8	52	65	111,5	-	-	-
609260111	609262311	48,5	66,3	77,8	66	85	137,5	-	-	-
609210111	609212311	48,5	66,3	77,8	66	85	137,5	-	-	-

### subbase DN 4



### subbase DN 8



# PROPORTIONAL VALVE PRESSURE REGULATOR VALVE

605 series

WITH DIGITAL ELECTRONICS


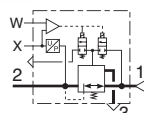
PULSTRONIC II  
threaded 1/4"



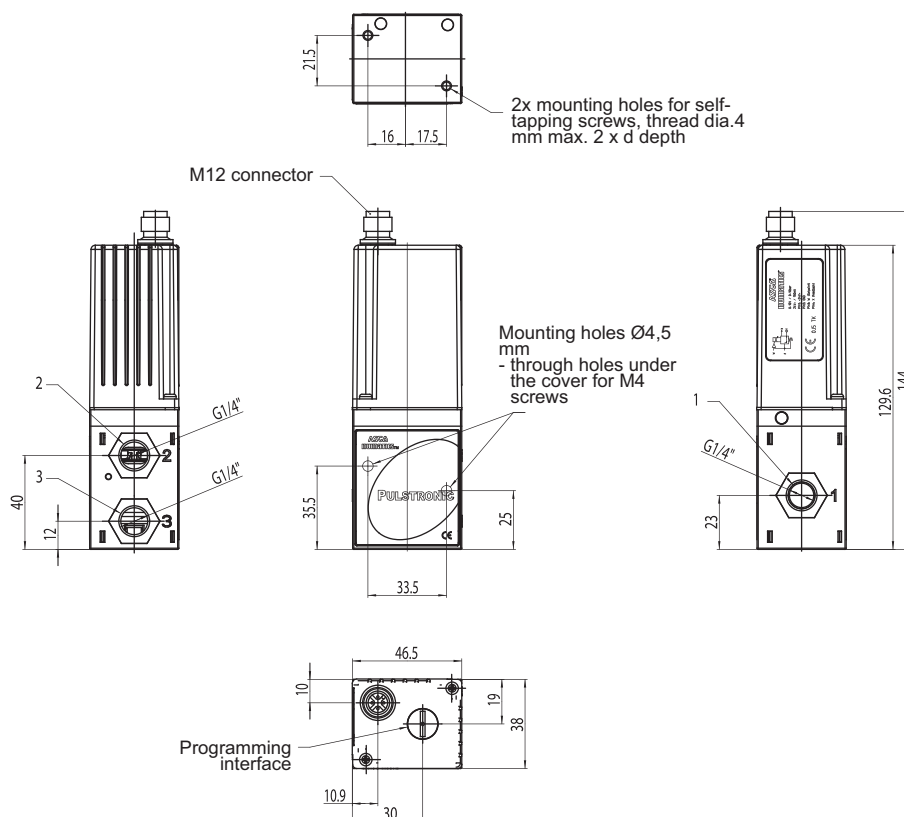
Fluids	air, inert gas, filtered at 50 µm, without condensate, lubricated or not
Pressure range	refer to selection table
Fluid temperature	0°C to +60°C
Ambient temperature	0°C to +50°C
Flow (Qv at 6 bar)	G 1/4 = 470 l/min
Electrical setpoint	0-10 V / 4-20 mA
Sensor output	0-10 V / 4-20 mA
Hysteresis	< 1 % of span
Linearity - repeatability	< 0,5 % of span
Body	POM (polyacetal)
Sealings	FPM (fluoroelastomer) and NBR (nitrile)
Standard voltage DC (=)	24 V ± 10 %

- Digital communication and control technology
- Integrated display with push-buttons
- Compact size
- Low power consumption
- Can be used on a standard compressed air network (50 µm filtration)

## YOUR SELECTION

	pressure range	maximum allowable pressure	max. power	pipe size	flow at 6 bar (ANR)	code	
	bar	bar	W	G	l/min	setpoint 0-10V	setpoint 4-20mA
<b>threaded body</b>							
	0 - 6	8	3,6	1/4	470	<b>605D0106</b>	<b>605D2306</b>
	0 - 10	12				<b>605D0100</b>	<b>605D2300</b>

## DIMENSIONS



# PROPORTIONAL VALVE PRESSURE REGULATOR


614 series  
WITH DIGITAL ELECTRONICS  
SENTRONIC<sup>PLUS</sup>  
threaded 1/8", 1/4", 1/2" or 1"

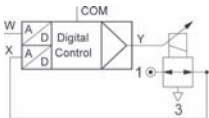


Fluids	air, inert gas, filtered at 50 µm, without condensate, lubricated or not
Pressure range	refer to selection table
Fluid temperature	0°C to +60°C
Ambient temperature	0°C to +50°C
Flow (Qv at 6 bar)	G1/8 = 210 l/min, G1/4 = 700 l/min, G1/2 = 1400, G1 = 5600 l/min
Electrical setpoint	0-10 V / 4-20 mA
Sensor output	0-10 V / 4-20 mA
Hysteresis	< 1 % of span
Linearity - repeatability	< 0,5 % of span
Body	G1/8 = brass, G1/4-G1 = aluminium
Sealings	FPM (fluoroelastomer) and NBR (nitrile)
Standard voltage DC (=)	24 V ± 10 %

- Digital communication and control technology
- Integrated display with push-buttons
- Direct operated valve
- Dynamic behaviour (high speed)
- Can be used on a standard compressed air network (50 µm filtration)

## YOUR SELECTION

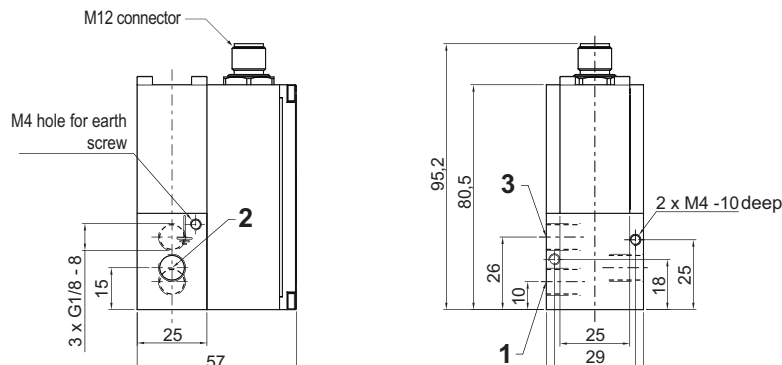
	pressure range	maximum allowable pressure	max. power	pipe size	flow at 6 bar (ANR)	code			
						with display		without display	
						setpoint 0-10V	setpoint 4-20mA	setpoint 0-10V	setpoint 4-20mA
<b>threaded body</b>									
	0 - 6	12				614357D701106	614357D723106	614357E701106	614357E723106
	0 - 10		12	1/8	210	614357D701110	614357D723110	614357E701110	614357E723110
	0 - 20	22				614357D701120	614357D723120	614357E701120	614357E723120
	0 - 6	12				614357D001106	614357D023106	614357E001106	614357E023106
	0 - 10		24	1/4	700	614357D001110	614357D023110	614357E001110	614357E023110
	0 - 20	22				614357D001120	614357D023120	614357E001120	614357E023120
	0 - 6	12				614357D101106	614357D123106	614357E101106	614357E123106
	0 - 12	14	34	1/2	1400	614357D101112	614357D123112	614357E101112	614357E123112
	0 - 6	12				614357D201106	614357D223106	614357E201106	614357E223106
	0 - 12	14	44	1	5600	614357D201112	614357D223112	614357E201112	614357E223112



## DIMENSIONS

G 1/8

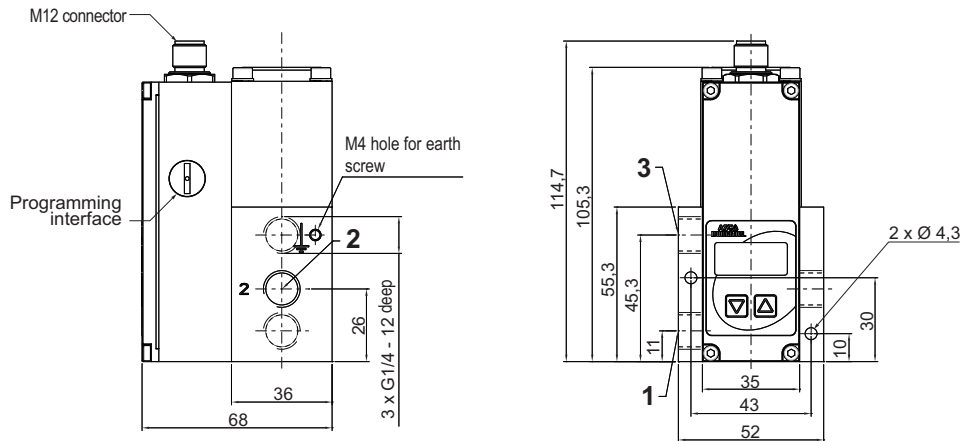
Weight: 0,550 kg



DIMENSIONS

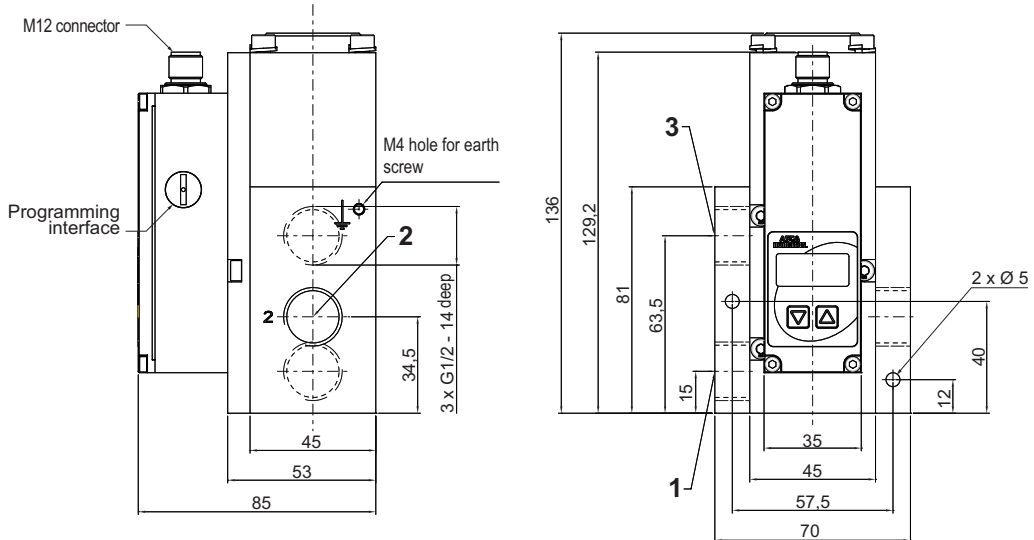
G 1/4

Weight: 0,850 kg



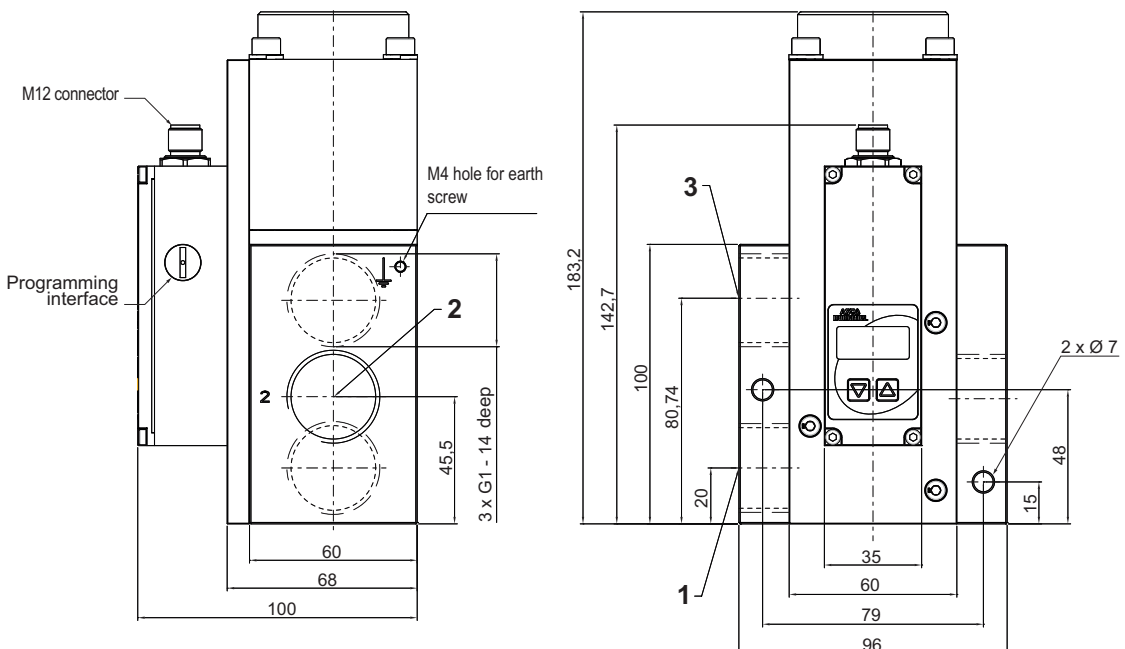
G 1/2

Weight: 1,650 kg



G 1

Weight: 3,400 kg





# AIR SERVICE EQUIPMENT

Modulair filter/regulator lubricator



**1** page 89

Modulair filter/regulator



**2** page 90

Modulair filter



**3** page 91

Modulair regulator



**4** page 92

Modulair lubricator



**5** page 93

Modulair - shut-off valves and soft-start units



**6** page 94

Modulair isolation valves



**7** page 95

Modulair by-pass module



**8** page 96

## YOUR SELECTION

pipe size G										control soft-start unit		type	flow at 6 bar (ANR) l/min	visual	series	page
1/8	1/4	3/8	1/2	3/4	1	1 1/4	1 1/2	2	automatic	solenoid air operated						
<b>filter/regulator + lubricator</b>												Modulair 105	400 / 550	<b>1</b>	342	89
●	●										Modulair 107	700 / 1500				
		●	●								Modulair 112	5200 / 5600				
				●	●	●	●	●			Modulair 160	8600 / 14650				
<b>filter/regulator</b>												Modulair 105	550 / 650	<b>2</b>	342	90
●	●										Modulair 107	700 / 1500				
		●	●								Modulair 112	5200 / 5600				
				●	●	●	●	●			Modulair 160	13200 / 19000				
<b>filter</b>												Modulair 107	1950	<b>3</b>	342	91
	●										Modulair 112	3000 / 3800				
		●	●								Modulair 160	10400 / 11400				
<b>regulator</b>												Modulair 105	550 / 650	<b>4</b>	342	92
●	●										Modulair 107	1200 / 1300				
		●	●								Modulair 112	5500 / 7000				
				●	●	●	●	●			Modulair 160	14600 / 20000				
<b>lubricator</b>												Modulair 107	1350 / 5400	<b>5</b>	342	93
●	●										Modulair 112	> 6500				
		●	●								Modulair 160	16000 / 17700				
<b>shut-off valve and soft-start unit</b>												Modulair 107	1000	<b>6</b>	342	94
	●								●		Modulair 112	2700				
		●	●						●	●	Modulair 160	10500 / 12000				
<b>isolation valve / by-pass module</b>												Mod.107-112-160	-	<b>7-8</b>	342-343	95-96
<b>assembly kits / mounting brackets</b>												Modulair	-	-	343	97

2013/R01  
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# FILTER/REGULATOR + LUBRICATOR SYSTEMS

Type Modulair 105-107-112-160  
G 1/8 to G 1 1/2



		Modulair 105	Modulair 107-112	Modulair 160
Fluids		compressed air or neutral gas		
Max. inlet pressure	at 23°C	12 bar	16 bar	16 bar
	at 50°C	10 bar	10 bar	12 bar
Ambient temperature		0°C to +50°C		
Filtering capacity		25 µm		30 µm
Filter element		PE (polyethylene)		sintered bronze
Body		polyamide (PA)	painted zamak	
Bowls		polycarbonate (PC) with bowl protector		metallic with level sight glass

- Modular, compact range for all types of pneumatic circuits
- Fast on-site assembly with filter, regulator and lubricator in one "single unit"
- Lightweight and robust for direct mounting to rigid piping

## YOUR SELECTION

pipe size G	Modulair	controlled pressure bar	bowl capacity			flow at 6 bar (ANR) l/min	code		dimensions (mm)			
			total cm <sup>3</sup>	max. condensate (filter) cm <sup>3</sup>	max. for oil (lubricator) cm <sup>3</sup>		with gauge	without gauge	A	B	C	D
<b>filter/regulator + lubricator unit WITH bowl protector and semi-automatic drain function</b>												
1/8	105	0,5 ... 8	28	10	23	400	<b>34225183</b>	<b>34225181</b>	172	41	84	69
1/4						550	<b>34225184</b>	<b>34225182</b>	172	41	84	69
1/8	107	0,5 ... 10	50	12	30	700	<b>34204131</b>	-	213	42	84	79
1/4						1500	<b>34204132</b>	<b>34204128</b>	213	42	84	79
1/4	112	0,5 ... 10	114	40	73	3200	<b>34203290</b>	<b>34203302</b>	250	55	132	94,5
3/8						5200 *	<b>34203291</b>	<b>34203303</b>	250	55	132	94,5
1/2	160	0,5 ... 10	114	40	73	5600 *	<b>34203292</b>	<b>34203304</b>	250	55	132	94,5
3/4						8600	<b>34207241</b>	<b>34207237</b>	345	90	180	133
1	160	0,5 ... 12	520	130	500	14650	<b>34207242</b>	<b>34207238</b>	345	90	180	133
1 1/2						14650	<b>34207244</b>	<b>34207240</b>	345	90	180	133
3/4	160	0,5 ... 16	520	130	500	8600	<b>34207313</b>	<b>34207309</b>	345	90	180	133
1						14650	<b>34207314</b>	<b>34207310</b>	345	90	180	133
1 1/2	160	0,5 ... 16	520	130	500	14650	<b>34207316</b>	<b>34207312</b>	345	90	180	133
3/4						8600	<b>34207313</b>	<b>34207309</b>	345	90	180	133
<b>filter/regulator + lubricator unit WITHOUT bowl protector and WITH semi-automatic drain function</b>												
1/8	105	0,5 ... 8	28	10	23	400	<b>34225103</b>	<b>34225101</b>	172	41	84	69
1/4						550	-	<b>34225102</b>	172	41	84	69
1/8	107	0,5 ... 10	50	12	30	700	<b>34204137</b>	-	213	42	84	79
1/4						1500	<b>34204138</b>	<b>34204134</b>	213	42	84	79
1/4	112	0,5 ... 10	114	40	73	3200	<b>34203314</b>	<b>34203326</b>	250	55	132	94,5
3/8						5200	<b>34203315</b>	<b>34203327</b>	250	55	132	94,5
1/2	160	0,5 ... 10	114	40	73	5600	<b>34203316</b>	<b>34203328</b>	250	55	132	94,5
3/4						8600	<b>34207257</b>	<b>34207253</b>	345	90	180	133
1	160	0,5 ... 12	520	130	500	14650	<b>34207258</b>	<b>34207254</b>	345	90	180	133
1 1/2						14650	<b>34207260</b>	-	345	90	180	133
3/4	160	0,5 ... 16	520	130	500	8600	<b>34207329</b>	<b>34207325</b>	345	90	180	133
1						14650	<b>34207330</b>	<b>34207326</b>	345	90	180	133
1 1/2	160	0,5 ... 16	520	130	500	14650	<b>34207332</b>	-	345	90	180	133
3/4						8600	<b>34207329</b>	<b>34207325</b>	345	90	180	133

\* upstream pressure 10 bar

## DIMENSIONS

(See page 98)

## OPTIONS AND ACCESSORIES

(See page 97)

# COMBINED FILTERS / REGULATORS

Type Modulair 105-107-112-160

G 1/8 to G 1 1/2



- Fast on-site assembly with filter and regulator in one "single unit"
- Lightweight and robust for direct mounting to rigid piping

		Modulair 105	Modulair 107-112	Modulair 160
Fluids		compressed air or neutral gas		
Max. inlet pressure	at 23°C	12 bar	16 bar	16 bar
	at 50°C	10 bar	10 bar	12 bar
Adjustable pressure		0,5 to 8 bar	0,5 to 10 bar	0,5 to 12 bar 0,5 to 16 bar
Ambient temperature		0°C to +50°C		
Filtering capacity		5 or 25 µm		5 or 30 µm
Filter element		PE (polyethylene)		sintered bronze
Body		polyamide (PA)	painted zamak	
Bowls		polycarbonate (PC) with bowl protector		metallic with level sight glass

## YOUR SELECTION

pipe size G	Modulair	controlled pressure bar	bowl capacity		flow at 6 bar (ANR) l/min	filtering capacity µm	code		dimensions (mm)			
			total cm <sup>3</sup>	max. condensate cm <sup>3</sup>			with gauge	without gauge	A	B	C	D
<b>filter/regulator WITH bowl protector and semi-automatic drain</b>												
1/8	105	0,5 ... 8	28	10	550	25	-	<b>34225201</b>	172	41	42	69
1/4					650	25	<b>34225204</b>	<b>34225202</b>	172	41	42	69
1/8	107	0,5 ... 10	50	12	700	25	-	<b>34204045</b>	213	42	42	79
1/4					1500	25	<b>34204050</b>	<b>34204046</b>	213	42	42	79
1/4	112	0,5 ... 10	114	40	1100	5	<b>34204056</b>	<b>34204052</b>	213	42	42	79
1/4					3200	25	<b>34203086</b>	<b>34203080</b>	251	55	66	94,5
3/8	160	0,5 ... 10	500	300	5200 *	25	<b>34203087</b>	<b>34203081</b>	251	55	66	94,5
1/2					5600 *	25	<b>34203088</b>	<b>34203082</b>	251	55	66	94,5
1/4	160	0,5 ... 12	500	300	3200	5	<b>34203098</b>	<b>34203092</b>	251	55	66	94,5
1/2					5600	5	<b>34203100</b>	<b>34203094</b>	251	55	66	94,5
3/4	160	0,5 ... 12	500	300	10100	30	<b>34207093</b>	<b>34207089</b>	182	90	90	133
1					13500	30	<b>34207094</b>	<b>34207090</b>	182	90	90	133
1 1/2	160	0,5 ... 16	500	300	13500	30	<b>34207096</b>	<b>34207092</b>	182	90	90	133
3/4					10100	30	<b>34207165</b>	<b>34207161</b>	182	90	90	133
1	160	0,5 ... 16	500	300	13500	30	<b>34207166</b>	<b>34207162</b>	182	90	90	133
1 1/2					13500	30	<b>34207168</b>	<b>34207164</b>	182	90	90	133
<b>filter/regulator WITHOUT bowl protector and WITH semi-automatic drain</b>												
1/4	105	0,5 ... 8	28	10	650	25	<b>34225124</b>	<b>34225122</b>	172	41	42	69
1/8	107	0,5 ... 10	50	12	700	25	-	<b>34204069</b>	213	42	42	79
1/4					1500	25	<b>34204074</b>	<b>34204070</b>	213	42	42	79
1/4	112	0,5 ... 10	114	40	3200	25	<b>34203372</b>	<b>34203340</b>	251	55	66	94,5
3/8					5200	25	<b>34203373</b>	<b>34203341</b>	251	55	66	94,5
1/2	160	0,5 ... 10	114	40	5600	25	<b>34203374</b>	<b>34203342</b>	251	55	66	94,5
3/8					5200	25	-	<b>34203130</b>	251	55	66	94,5
1/2	160	0,5 ... 10	114	40	5600	25	<b>34203137</b>	<b>34203131</b>	251	55	66	94,5
1/2					5600	5	<b>34203149</b>	-	251	55	66	94,5
3/4	160	0,5 ... 12	160	300	10100	30	<b>34207109</b>	-	182	90	90	133
1					13500	30	<b>34207110</b>	<b>34207106</b>	182	90	90	133
1 1/2	160	0,5 ... 12	160	300	13500	30	<b>34207112</b>	-	182	90	90	133
3/4					10100	30	<b>34207181</b>	<b>34207177</b>	182	90	90	133
1	160	0,5 ... 16	160	300	13500	30	<b>34207182</b>	<b>34207178</b>	182	90	90	133
1 1/2					13500	30	<b>34207184</b>	<b>34207180</b>	182	90	90	133

\*: upstream pressure 10 bar

## DIMENSIONS

(See page 98)

# FILTERS

## Type Modulair 105-107-112-160

### G 1/8 to G 1 1/2



	Modulair 105	Modulair 107	Modulair 112	Modulair 160
Fluids	compressed air or neutral gas			
Max. inlet pressure	at 23°C	12 bar	16 bar	16 bar
	at 50°C	10 bar	10 bar	10 bar
Ambient temperature	0°C to +50°C			
Filtering capacity	5 or 25 µm			30 µm
Filter element	PE (polyethylene)			sintered bronze
Body	painted zamak			
Bowls	polycarbonate (PC) with bowl protector			metallic with level sight glass

- Wide choice of filtering capacities for oil and water aerosols: 5, 10, 25 and 50 µm
- Condensate level control with manual, semi-automatic or automatic drain function, integrated in the body
- Compatible with main industrial environments: polycarbonate bowl with bowl protector, in metal

## YOUR SELECTION

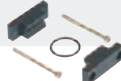
pipe size G	Modulair	bowl capacity		filtering capacity µm	flow at 6 bar (ANR) l/min	code	dimensions (mm)			
		total cm³	max. condensate cm³				A	B	C	D
<b>filter - polycarbonate bowl WITH bowl protector and semi-automatic drain</b>										
1/8	105	28	10	25	890	<b>34225213</b>	127,5	41	42	25
1/4				5	1050	<b>34225254</b>	127,5	41	42	25
1/4	107	50	12	25	1800	<b>34204012</b>	160	42	42	25
	112	114	40	5	1800	<b>34204016</b>	160	42	42	25
3/8	112	114	40	25	3000 *	<b>34203002</b>	187	55	66	30
				5	3000	<b>34203008</b>	187	55	66	30
1/2	112	114	40	25	3800 *	<b>34203003</b>	187	55	66	30
				5	3800	<b>34203009</b>	187	55	66	30
<b>filter - polycarbonate bowl WITHOUT bowl protector and WITH semi-automatic drain</b>										
1/4	105	28	10	25	1050	<b>34225134</b>	127,5	41	42	25
1/4	107	50	12	25	1800	<b>34204024</b>	160	42	42	25
1/4	112	114	40	25	2600	<b>34203038</b>	187	55	66	30
3/8					3000	<b>34203039</b>	187	55	66	30
1/2	112	114	40	25	3800	<b>34203040</b>	187	55	66	30
3/4					10400	<b>34207009</b>	333	90	90	40
1	160	500	130	30	11400	<b>34207010</b>	333	90	90	40
1 1/2					11400	<b>34207012</b>	333	90	90	40
<b>filter - metal bowl with level display</b>										
3/4	160	500	130	30	10400	<b>34207001</b>	333	90	90	40
1					11400	<b>34207002</b>	333	90	90	40
1 1/2	160	500	130	30	11400	<b>34207004</b>	333	90	90	40

## OPTIONS AND ACCESSORIES

**Mountings**  
Assembly kit for fitting additional accessories (see page 97)



**Key lock device**



**Shut-off valves and soft-start units, Isolation valves, By-pass modules (see page 98)**



Other filtration capacities.  
Other drain types: manual or automatic

**Metal bowl (Modulair 112)**



**Mounted together**



## DIMENSIONS

(See page 98)

# REGULATORS

## Type Mini and Modulair 105-107-112-160

### G 1/8 to G 1 1/2



	Mini	Modulair 105	Modulair 107-112-160
Fluids	compressed air or neutral gas		
Max. inlet pressure	12 bar	12 bar	16 bar
Adjustable pressure	refer to selection table		
Ambient temperature	-10°C to +60°C	0°C to +50°C	-10°C to +60°C
Body	polyamide (PA)		painted zamak

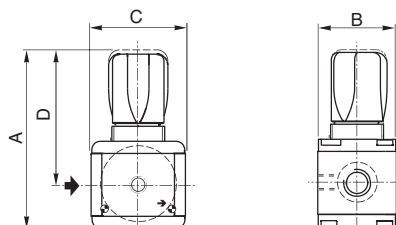
- Wide pressure range: from 0,2-0,5 bar to 3-8-10-16 bar
- Assures constant downstream pressure: device fitted with flexible diaphragm and automatic decompression
- Reliable and durable

## YOUR SELECTION

pipe size G	Modulair	controlled pressure bar	flow at 6 bar (ANR) l/min	code		dimensions (mm)				
				with gauge	without gauge	A	B	C	D	
<b>regulator - standard regulation pressure range</b>										
1/8	Mini (1)	0,5 ... 10	500	-	34200311	74	40	45	62	
1/4			650	-	34200313	74	40	45	62	
1/8	105	0,5 ... 8	550	34225007	34225005	90	41	42	69	
1/4			650	34225008	34225006	90	41	42	69	
1/8	107	0,5 ... 10	700	34504037	34204033	122	42	42	96	
1/4			1200	34204038	34204034	122	42	42	96	
1/4	112	0,5 ... 10	3900	34203058	34203052	143	55	66	113	
3/8			5500	34203059	34203053	143	55	66	113	
1/2			7000	34203060	34203054	143	55	66	113	
3/4	160	0,5 ... 12	11000	34207077	34207073	182	90	90	133	
1			16000	34207078	34207074	182	90	90	133	
1 1/2			16000	34207080	34207076	182	90	90	133	
3/4			11000	34207085	34207081	182	90	90	133	
1	160	0,5 ... 16	16000	34207086	34207082	182	90	90	133	
3/4			16000	34207088	34207084	182	90	90	133	
<b>régulateur - plage standard de pression de réglage - prepared to receive a key locking device</b>										
1/4	107	0,5 ... 10	1300	-	34260171	122	42	42	96	
3/8	112	0,5 ... 10	3000	-	34260175	143	55	66	113	
<b>regulator - low regulation pressure range (0,2 - 3 bar)</b>										
1/8	Mini (1)	0,2 ... 3	500	-	34200312	74	40	45	62	
1/4			650	-	34200314	74	40	45	62	
1/8	105	0,2 ... 3	550	34225261	34225259	90	41	42	69	
1/4			650	34225262	34225260	90	41	42	69	
1/4	107	0,2 ... 3	1200	34204044	34204040	122	42	42	96	
1/4			3900	-	34203064	143	55	66	113	
3/8	112	0,2 ... 3	5500	-	34203065	143	55	66	113	
1/2			7000	34203072	34203066	143	55	66	113	
<b>regulator - low regulation pressure range (0,2 - 3 bar) - prepared to receive a key locking device</b>										
1/4	107	0,2 ... 3	1300	-	34260170	122	42	42	96	
3/8	112	0,2 ... 3	3000	-	34260174	143	55	66	113	
<b>Miniature regulator - water version</b>										
1/4	105	0,2 ... 3	15	34225270	34225268	90	41	42	62	

(1) supplied with top retaining ring

## DIMENSIONS



# LUBRICATORS

## Type Modulair 107-112-160

### G 1/8 to G 1 1/2



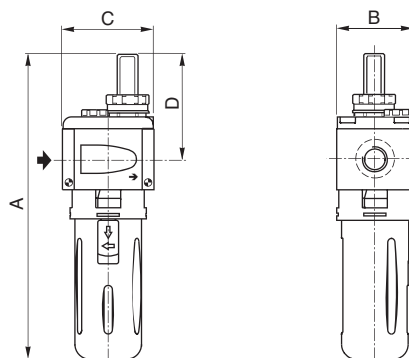
	Modulair 107	Modulair 112	Modulair 160
Fluids	compressed air or neutral gas		
Max. inlet pressure	at 23°C	12 bar	12 bar
	at 50°C	10 bar	10 bar
Ambient temperature	0°C to +50°C	0°C to +50°C	-10°C to +50°C
			(+60°C at 12,5 bar)
Body	painted zamak		
Bowls	polycarbonate (PC) with bowl protector		metallic with level sight glass

- Supplies a constant lubricant flow: venturi technology for perfect vaporisation of oil
- Oil level control management: by means of display. Refill pressurised or not pressurised
- Compatible with various industrial environments: plastic bowl with metal bowl protector

## YOUR SELECTION

pipe size G	Modulair	bowl capacity		flow at 6 bar (ANR)	code	dimensions (mm)				
		total cm <sup>3</sup>	max. for oil cm <sup>3</sup>			A	B	C	D	
<b>lubricator - polycarbonate bowl with protector</b>										
1/8	107	50	30	1350	<b>34204001</b>	187	42	42	65	
1/4	107	50	30	2500	<b>34204002</b>	187	42	42	65	
1/4	112	114	73	3900	<b>34203270</b>	215	55	66	71	
3/8	112	114	73	> 6500	<b>34203271</b>	215	55	66	71	
1/2	112	114	73	> 6500	<b>34203272</b>	215	55	66	71	
<b>lubricator - polycarbonate bowl without protector</b>										
1/8	107	50	30	1350	<b>34204005</b>	107	42	42	65	
1/4	107	50	30	2500	<b>34204006</b>	107	42	42	65	
1/4	112	114	73	3900	<b>34203276</b>	215	55	66	71	
3/8	112	114	73	> 6500	<b>34203277</b>	215	55	66	71	
1/2	112	114	73	> 6500	<b>34203278</b>	215	55	66	71	
<b>lubricator - metal bowl with level display</b>										
3/4	160	520	500	16000	<b>34207233</b>	247	90	90	57	
1	160	520	500	17700	<b>34207234</b>	247	90	90	57	
1 1/2	160	520	500	17700	<b>34207236</b>	247	90	90	57	

## DIMENSIONS



## OPTIONS AND ACCESSORIES

Mountings (see page 97)



Assembly kit for fitting additional accessories (see page 97)



Mounted together



Metal bowl (Modulair 112)



Oil refill with lubricator under pressure (Modulair 107)

# SHUT-OFF VALVE AND SOFT-START UNIT

Type Modulair 107-112-160  
G 1/4 to G 1 1/2



	Modulair 107	Modulair 112	Modulair 160
Fluids	filtered air or neutral gas, lubricated or not		
Operating pressure	2,5 to 10 bar	3 to 10 bar	0,5 to 16 bar
Ambient temperature	0°C to +50°C		
Body	metal		

- Assures automatic drain of a pneumatic circuit whenever a system fails: shut-off valve
- Assures pressurisation of machines and systems: adjustable progressive restoring of pressure
- Two types of control: pneumatic (automatic version) or electrical (solenoid air version)
- Set-point value is secured by means of dowel pin, or safety key

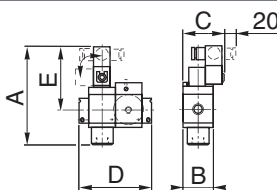
## YOUR SELECTION

pipe size G	Modulair	flow at 6 bar (ANR) l/min	code	solenoid pilot valve					connector
				qty	code	~ VA	= W	(M)	
<b>shut-off valve 3/2 NC + soft-start unit 2/2 NC - automatic</b>									
1/4	107	1000	34394014	+ 1x	30211112--A 30211112--D	1,2 -	- 1,2	▼ ▼	size 15 DIN 43650, 9,4 mm, form C
1/4	107	1000	34394006						
1/4	112	2700	34393107						
3/8	112	2700	34393108	+ 1x	19000017(1)	4	3	▼	size 30 ISO 4400 / EN 175301-803, form A
1/2	112	2700	34393109						
<b>soft-start unit 2/2 NC - automatic</b>									
1/4	107	1000	34304022						size 30
1/2	112	2700	34303021						ISO 4400 / EN 175301-803, form A
<b>shut-off valve 3/2 NC + soft-start unit 2/2 NC - solenoid air controlled</b>									
1/2	112	2700	34393112						
3/4	160	10500	34397034	+ 2x	19000017(1)	4	3	▼	size 30 ISO 4400 / EN 175301-803, form A
1	160	10500	34397035						
<b>shut-off valve 3/2 NC</b>									
1/4	107	1000	34394010	+ 1x	30211112--A 30211112--D	1,2 -	- 1,2	▼ ▼	size 15 DIN 43650, 9,4 mm, form C
1/4	107	1000	34394002						
3/8	112	2700	34393102	+ 1x	19000017(1)	4	3	▼	size 30 ISO 4400 / EN 175301-803, form A
1/2	112	2700	34393103						
<b>shut-off valve 3/2 NC air controlled + soft-start unit 2/2 NC automatic</b>									
3/4	160	10500	34307006						
<b>shut-off valve 3/2 NC solenoid air controlled + soft-start unit 2/2 NC automatic</b>									
3/4	160	10500	34397006						
1	160	12000	34397007	+ 1x	19200009(1)	6	5	▼	size 30 ISO 4400 / EN 175301-803, form A
1 1/2	160	12000	34397009						

(1) : When ordering, please specify in addition to the code: voltage / frequency (M) : Manual operator ▼ : with impulse manual operator

## DIMENSIONS

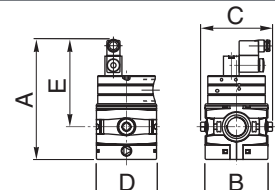
Modulair 107 - 112



dimensions  
(mm)

	A	B	C	D	E
Modulair 107	173	42	74	84	126
Modulair 112	182,5	55	73	125	115
Modulair 160	191	94	104	90	142

Modulair 160



## OPTIONS AND ACCESSORIES

Mountings (see page 97)



Assembly kit for fitting  
additional accessories  
(see page 97)



Exhaust silencer  
(see page 100)



Mounted together



Pressure gauges  
(see page 98)



# 3/2 ISOLATION VALVES WITH MANUAL CONTROL LOCKABLE

## Type Modulair 107-112-160

### G 1/4 to G 1 1/2



	Modulair 107-112	Modulair 160
Fluids	air or neutral gas	
Operating pressure	max. 16 bar.	max. 17,5 bar
Ambient temperature	-10°C to +50°C	
Body	metal	

- Isolates air pressure
- Stops installations being pressurised after interruption: multi position
- Assures maximum air flow: ball valve construction
- Easy to operate with handle 90°

## YOUR SELECTION

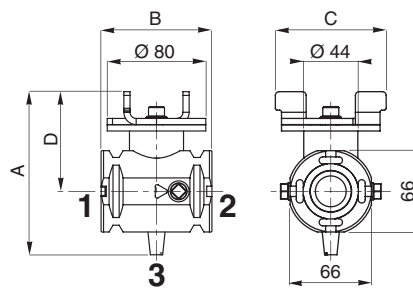
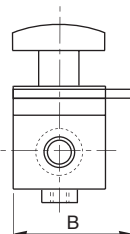
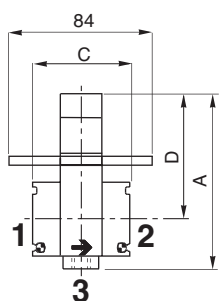
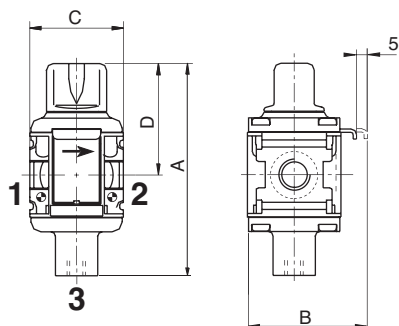
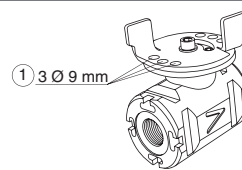
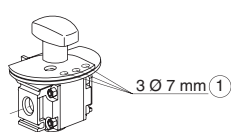
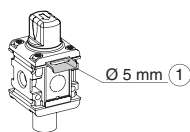
pipe size	Modulair	max. flow (1 to 2) l/min	drain rate at 6 bar (ANR) (2 to 3) l/min	drain time (for 10 liters) s	code		dimensions (mm)			
					padlockable version	standard version	A	B	C	D
1/4	107	direct access	560	6	34304018		97	54	42	50
1/4					34303052	34303013	106	70	58	74
3/8	112				34303053	34303014	106	70	58	74
1/2					34303054	34303015	106	70	58	74
3/4					34307001		132,4	90	90	81
1	160		650	28	34307002		132,4	90	90	81
1 1/2					34307004		132,4	90	90	81

## DIMENSIONS

Modulair 107

Modulair 112

Modulair 160



① Can be immobilised in closed position, using padlock

## OPTIONS AND ACCESSORIES

Mountings (see page 97)



Assembly kit for fitting additional accessories (see page 97)



Exhaust silencer (see page 100)



Mounted together

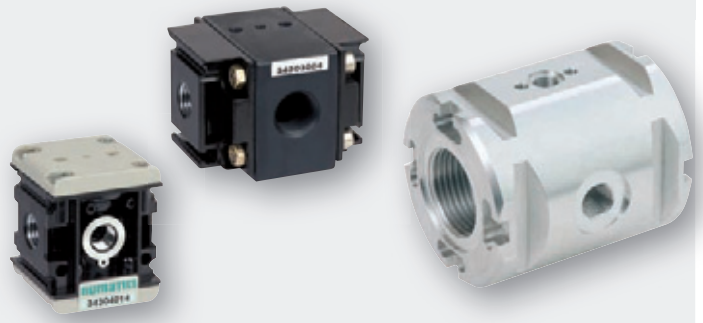




# BY-PASS MODULES

## Type Modulair 107-112-160

### G 1/4 to G 1



	Modulair 107-112	Modulair 160
Fluids	air or neutral gas	
Operating pressure	max. 16 bar.	max. 17,5 bar
Ambient temperature	-10°C to +50°C	
Body	metal	

- Assures air supply through a secondary circuit, filtered, lubricated or not
- Has the ability to check the level of contamination in the filter using a pressure switch
- Non threaded connection

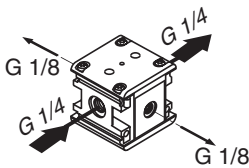
## YOUR SELECTION

pipe size G	Ø ports for by-pass G	Modulair	adaptation pressure switch	code	dimensions (mm)		
					A	B	C
3/8	2 ports 1/8, front and rear	107	possible (1)	<b>34304014</b>	51	42	42
1/4	3 ports 3/8, lower, front and rear	112	possible (1)	<b>34303004</b>	47	55	66
3/8	3 ports 3/8, lower, front and rear	112	possible (1)	<b>34303005</b>	47	55	66
1/2	3 ports 3/8, lower, front and rear	112	possible (1)	<b>34303006</b>	47	55	66
3/4 - 1	4 ports: 1/8 upper, 1 lower, 1/4 front and rear	160	possible (1)	<b>34307020</b>	66	66	80

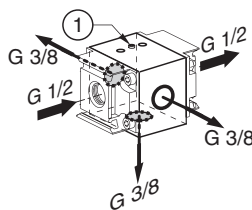
(1) pressure switch with subbase code: 34900030 or 34900031 to be supplied separately (see page 102)

## DIMENSIONS

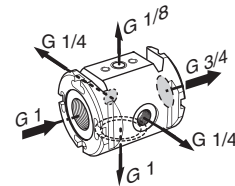
**Modulair 107**



**Modulair 112**

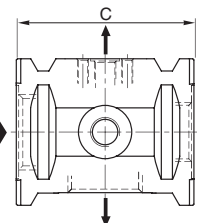
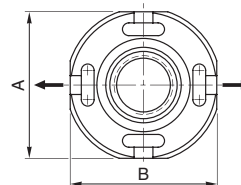
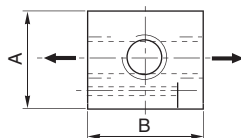
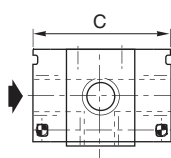


**Modulair 160**



① Immersed, sealed sunk plug. To be removed before mounting pressure switch (dismantle using 2 mm hex wrench)

**Modulair 107-112**



## OPTIONS AND ACCESSORIES

Mountings (see page 97)



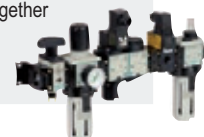
Assembly kit for fitting additional accessories (see page 97)



Pressure switch with subbase (see page 102)



Mounted together

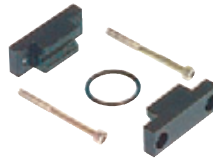


# ACCESSORIES FOR AIR SERVICE EQUIPMENT

## YOUR SELECTION

### ASSEMBLY KIT WITH 2 ELEMENTS

code



Modulair 107

Modulair 112

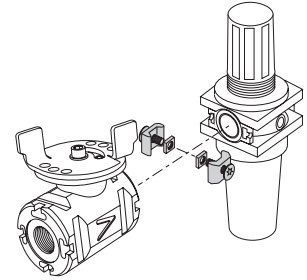
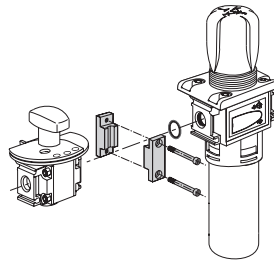
Modulair 160

1 assembly kit with 2 elements

**34304001**

**34303001**

**34307005**



### SIDE MOUNTING BRACKETS

code



Modulair 105

Modulair 107

Modulair 112

Modulair 160

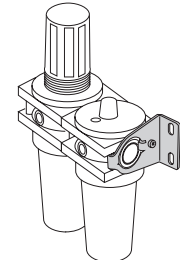
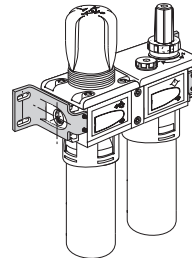
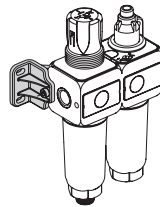
1 set of two side mounting brackets

**34325005**

**34304003**

**34303003**

**34307017**



### TOP MOUNTING BRACKETS

code



Modulair 105

Modulair 107

Modulair 112

Modulair 160

Top mounting ring

**34300011 (1)**

**34300011**

**34300004**

**34307015**

Top mounting bracket

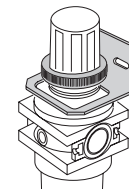
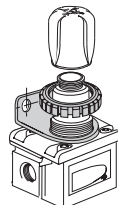
**34300016**

**34300016**

**34300017**

**34307016**

(1) Top mounting ring supplied with Modulair 105 regulator



# ACCESSORIES FOR AIR SERVICE EQUIPMENT

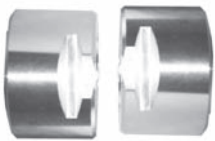
## YOUR SELECTION

### PRESSURE GAUGES

	size	code	adaptable on Modulair			
			105	107	112	160
Single pressure gauge Ø 40 mm	0 - 4 bar	R1/8 tapered	<b>34300015</b>	●	●	
	0 - 10 bar		<b>34300014</b>	●		
	0 - 12 bar		<b>34300041</b>		●	
	0 - 4 bar	R1/8 tapered	<b>34200061</b>			●
	0 - 12 bar		<b>34200062</b>			●
	0 - 16 bar		<b>34200997</b>			



### MOUNTING ON PIPE



	size	code
set of 2 connecting flanges	1 1/2	<b>34307018</b>

### LOCK DEVICE



	code
lock device with key	<b>34303050</b>

### DRIP LEG AUTODRAIN

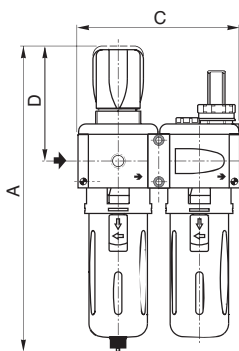


The automatic drain valve collects and drains, by means of a built-in automatic valve, water within compressed air systems. For a longer lifetime of the automatic drain valve, the unit includes a 55 µm filter element to strain main condensates.

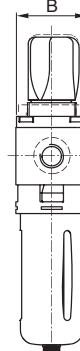
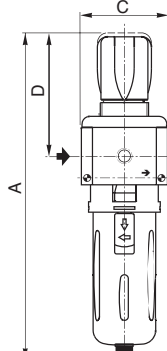
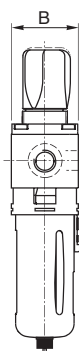
	size	Operating pressure	code
automatic drain valve	1/2	<b>1-16 bar</b>	<b>34201471</b>

### DIMENSIONS

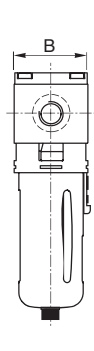
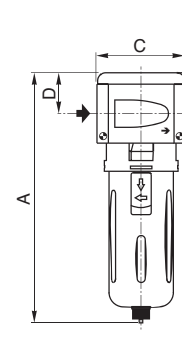
#### filter/regulator + lubricator



#### filter/regulator



#### filter



# PNEUMATIC ACCESSORIES

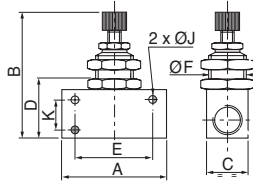
## "IN LINE" PANEL MOUNTED FLOW REGULATORS

### CHARACTERISTICS

Operating pressure: 1 to 10 bar  
 DRV100B: vacuum, 0,2 to 10 bar  
 Temperature: -10°C to +60°C  
 DRV100B: -20°C to +80°C  
 Aluminium bodies  
 NBR (nitrile), seal



pipe size G	code
1/8	34602152
1/4	34602153
3/8	34602154
1/2	34602155
3/4	34600156



dimensions (mm)									
A	B	C	D	E	F	J	K		
34	56	16	24	24	12	4,5	-		
50	75	25	35	35	18	6,5	-		
58	75	25	35	40	18	6,5	-		
65	92	30	46	50	22	6,5	-		
110	119	39	58	70	37	6,5	-		

## BANJO FLOW REGULATORS, ADAPTABLE ON CYLINDER

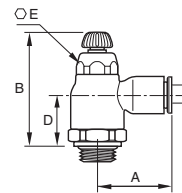
### CHARACTERISTICS

Operating pressure: 1 to 10 bar  
 Temperature: 0°C to +70°C  
 Body: (see table)  
 NBR (nitrile), seal  
 Allows for direct installation in cylinder ports to create more compact units



#### plastic body - adjustable by button/screw

pipe size G	tube O.D. (mm)	code
M5	4	34602188
1/8	4	34602221
1/8	6	34602222
1/4	6	34602223
1/4	8	34602224
3/8	10	34602021
1/2	12	34602022

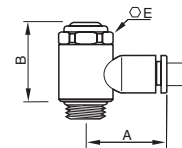


dimensions (mm)				
A	B	D	E	max.
17	26	-	6	
22	44	16	10	
22	44	16	10	
22	42,5	15	10	
28	48	18,5	14	
32	54	20	17	
35	54	20	17	

#### plastic body - adjustable by embedded screw



1/8	6	34602018
1/4	6	34602019
1/4	8	34602020

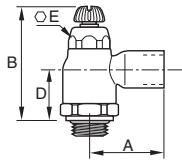


21	26	-	13
22	28	-	17
27	28	-	17

#### metal body, threaded output - adjustable by button/screw



pipe size G	code
1/8	34602181
1/4	34602182
3/8	34602183

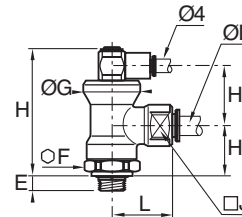


dimensions (mm)				
A	B	D	E	max.
22,5	52,5	23	10	
32	55,5	25	14	
34,5	62	27	17	

## ORIENTABLE CYLINDER BLOCKING FITTING

Fluids	air, neutral gas, filtered, lubricated or not
Operating pressure	10 bar max.
Pilot pressure	1.5 to 4 bar
Ambient temperature	-20°C to +70°C
Body	Treated brass
Diaphragm and seals	NBR (nitrile)

pipe size G	coupler size ØD	code	dimensions (mm)							
			E	F	G	H	H1	H2	J	L
3/8	8	34602451	7,5	21	24	53	24,5	21	17	28



# PNEUMATIC ACCESSORIES

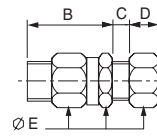
## EXHAUST REGULATORS

### CHARACTERISTICS

Operating pressure: 0 to 30 bar  
 Temperature: -10°C to +80°C  
 Brass body



pipe size G	orifice size (mm)	code
1/8	5	34600107
1/4	8	34600108



dimensions (mm)				
B	C	D	E	
	min.		max.	
22	1	4	8,5 13	
29	1	5	11,5 17	

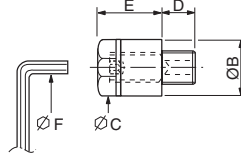
## EXHAUST REGULATORS + SILENCERS

### CHARACTERISTICS

Operating pressure: 0 to 10 bar  
 Temperature: -10°C to +80°C  
 Technical polymer body  
 Silencer element in porous plastic



pipe size G	code
1/8	34600413
1/4	34600414
3/8	34600415



dimensions (mm)					
B	C	D	E	F	
15	13	6	14,5	2,5	
18	15	7	22	4	
2x4	20	8	30	6	

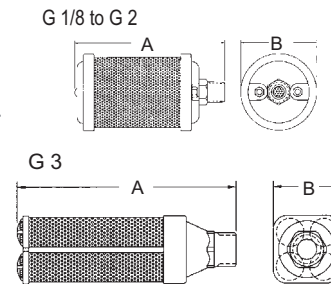
## HIGH FLOW SILENCERS

### HIGH FLOW SILENCERS

Operating pressure: 10 bar max.  
 40 bar optional  
 Temperature: -40°C to +140°C  
 Body: zinc plated steel and alu



pipe size G	flow at 6,2 bar l/min.	code
1/2	7240	SE50HB
1	22600	SE100HB
2	90600	SE200HB



dimensions (mm)	
A	B
152	80
222	98
479	133

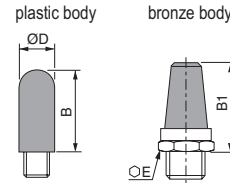
## EXHAUST SILENCERS

### CHARACTERISTICS

Operating pressure: 0 to 10 bar  
 Ambient temperature: -10°C to +80°C  
 Body: (see table)



pipe size G	code	
	plastic body	bronze body
M5	-	34600207
1/8	34600406	34600001
1/4	34600407	34600002
3/8	34600408	34600003
1/2	34600409	34600004
3/4	-	34600005
1	-	34600006



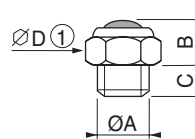
dimensions (mm)				
B	B1	D	E	
27	22,4	13	13	
34	41,6	15	16	
55	49,2	18	24	
62	54,6	23	27	
	82,3		36	
	93,5		50	

### CHARACTERISTICS

Operating pressure: 0 to 10 bar  
 Ambient temperature: -10°C to +80°C  
 Body: stainless steel



pipe size	code
G 1/8	34600418
G 1/4	34600419
NPT 1/8	34600482
NPT 1/4	34600483
NPT 1/2	34600481



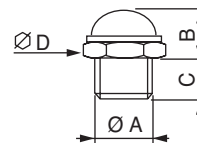
dimensions (mm)			
A	B	C	D
1/8	10	6	13
1/4	11	8	16
1/2	14	9	24

### CHARACTERISTICS

Operating pressure: 0 to 12 bar  
 Temperature: -10°C to +80°C  
 Body: bronze



pipe size G	code
M5	34600491
1/4	34600493



dimensions (mm)			
A	B	C	D
M5	4,5	3,5	8
1/4	11	8	16

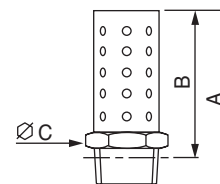
## METAL AIR MUFFLERS

### CHARACTERISTICS

Operating pressure: 0 to 13,8 bar  
 Temperature: -20°C to +110°C  
 Body: bichromated zinc steel  
 Sieve: brass



pipe size G	flow at 6,2 bar l/min.	code
1/8	1246	M1MB
1/4	2718	M2MB
3/8	5660	M3MB
1/2	8600	M4MB
3/4	15850	M5MB
1	22650	M6MB



dimensions (mm)		
A	B	C
35	31	11
44	39	14
57	51	18
69	61	22
80	71	27
99	88	33

# PNEUMATIC ACCESSORIES

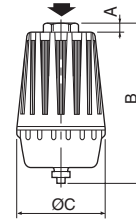
## EXHAUST SILENCER FILTERS

### CHARACTERISTICS

Operating pressure: 0 to 16 bar  
 Temperature: -5°C to +50°C  
 Max. differential pressure: 0,5 bar  
 PP (polypropylene) and aluminium body  
 NBR (nitrile), seal



pipe size G	max. flow (ANR) l/min.	code
1/2	1300	<b>34600213</b>
3/4	1600	<b>34600214</b>
1	2900	<b>34600215</b>



dimensions (mm)		
A	B	C
12	180	90
12	180	90
15	250	110

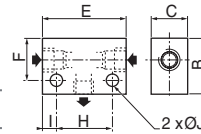
## SHUTTLE VALVES

### CHARACTERISTICS

Operating pressure: 1 to 10 bar  
 Temperature: -10°C to +60°C  
 Aluminium bodies  
 Internal parts: steel + NBR (nitrile)



pipe size G	orifice size (mm)	code
1/8	3,2	<b>34600127</b>
1/4	6	<b>34600119</b>



dimensions (mm)						
B	C	E	F	H	I	J
26	16	51	20,5	32	9,5	4,5
30	20	52	21,5	35	8,5	5,5

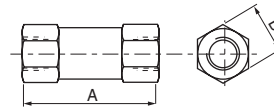
## NON-RETURN VALVES

### CHARACTERISTICS

Operating pressure: 0,5 to 10 bar  
 Temperature: -10°C to +60°C  
 Nickel plated brass body  
 NBR (nitrile), seal



pipe size G	flow at 6 bar (ANR) l/min.	code
1/8	920	<b>34602124</b>
1/4	1650	<b>34602125</b>
3/8	2400	<b>34602444</b>
1/2	3500	<b>34602126</b>



dimensions (mm)	
A	B
36,5	13
41	16
51	20
62	24

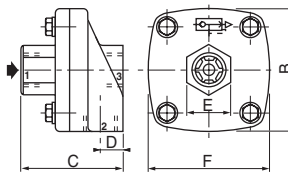
## QUICK EXHAUST VALVES

### CHARACTERISTICS

Operating pressure: 0,5 to 10 bar  
 Temperature: -10°C to +60°C  
 Light-alloy body  
 NBR (nitrile) diaphragm



pipe size G	orifice size (mm)	code
1/4	12	<b>34600136</b>
3/8	12	<b>34600137</b>
1/2	20	<b>34600138</b>
3/4	20	<b>34600139</b>



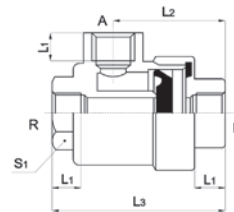
dimensions (mm)					
B	C	D	E	F	
64	52	13	25	64	
64	52	13	25	64	
85	72	19	38	97	
85	72	19	38	97	

### CHARACTERISTICS

Operating pressure: 1 to 10 bar  
 Temperature: -20°C to +70°C  
 Body: nickel plated brass  
 Diaphragm: PUR (polyurethane)



pipe size G	code
3/8	<b>SEV37C</b>
1/2	<b>SEV50C</b>



dimensions (mm)			
L1	L2	L3	S1
11	35	54	19
14	45	72	26

(option Viton®)

(Viton® is a registered trademark of Dupont Performance Elastomers)

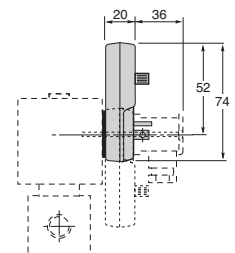
## ELECTRONIC TIMERS

### CHARACTERISTICS

Number of pins: 2 + earth / ground  
 Approval: CSA  
 Housing: PA (polyamide)  
 Connector complies with: ISO 4400  
 Standard voltages:  
 24 to 240V DC / AC (50/60Hz)  
 Max. power (I = 1A max.):  
**24VA (24V) to 240VA (240V)**



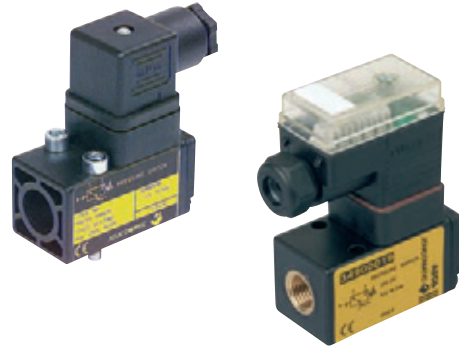
timer control		timer orientation	voltage	code
ON	OFF		DC/AC	
signal	signal		= / ~	
sec	min		V	
2...40	0,5...45	180°x180°	24 to 240	<b>88122627</b>



# PNEUMATIC ACCESSORIES

## ADJUSTABLE SUBBASE MOUNTED OR G1/4 PRESSURE SWITCHES

Visualisation and electrical protection	without	with
Fluids	air, neutral gas, filtered, lubricated or not	
Regulation range	see below	
Hysteresis	0,4 bar / 1 bar	
Shut-off capability	5 A - 250 V resistive	2 A - 24 V DC resistive
Temperature	-10°C to +60°C	0°C to +60°C
Electrical connection	ISO 4400 / EN 175301-803, form A	
Max. voltage	250 V AC/DC	24 V DC
Degree of protection	IP65	
Body	PC (polycarbonate)	
Seals	NBR (nitrile)	



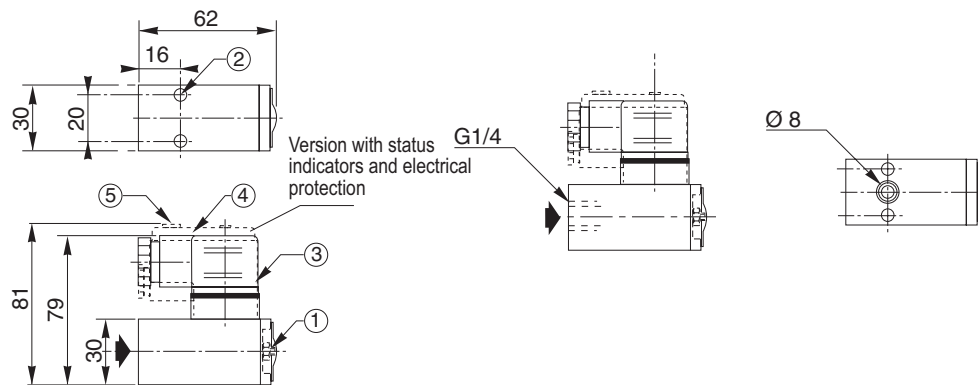
Regulation range                      code

Threaded body		
with side pneumatic connection, threaded G1/4	0,5 to 10 bar	<b>34900018</b>
with side pneumatic connection, threaded G1/4	0,2 to 6 bar	<b>34900015</b>
with side pneumatic connection, threaded G1/4, with status indicators and electrical protection	0,5 to 10 bar	<b>34900019</b>
Subbase mounted		
with subbased mounted pneumatic connections	0,5 to 10 bar	<b>34900030</b>
with subbase mounted pneumatic connections, with status indicators and electrical protection	0,5 to 10 bar	<b>34900031</b>
adjustable vacuum switch		
with side pneumatic connection, tapped G1/4	0,5 to 10 bar	<b>34900012</b>

all versions

threaded body G1/4

subbase



- ① pressure set screw (3mm hex screw)
- ② 2 mounting holes, Ø 5,5 mm
- ③ ISO 4400 connector, 4 terminals, rotatable through 90° x 90°
- ④ non-rotatable connector
- ⑤ label holder

## PNEUMATIC INDICATOR

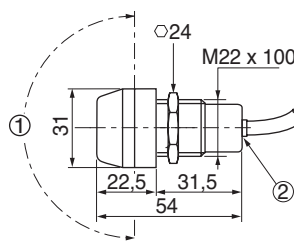
### CHARACTERISTICS

Fluids	air, neutral gas, filtered, lubricated or not
Operating pressure	2 to 8 bar
Ambient temperature	+5°C to +70°C
Angle of vision	180°
Lens	PC (polycarbonate)
Body and collar	POM (polyacetal)
Nut	Brass



colour                                      code

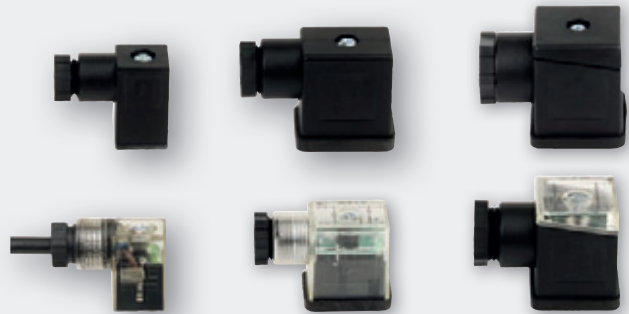
red	<b>34600130</b>
yellow	<b>34600131</b>



- ① Angle of vision 180°
- ② Instant fittings for flexible tube Ø 4 O.D.

# CONNECTORS

## sizes 15, 22 and 30



	size 15	size 22	size 30
Connector specification	DIN 43650, 9,4 mm, form C	DIN 43650, 11 mm, industry standard B	ISO 4400 / EN 175301-803, form A
Number of contacts	2 + common earth		
Distance between contacts	9,4/8 mm	11 mm	18 mm
Degree of protection	IP65		
Connection cable	by screw or by cable		
Wire cross-section	0,5 mm <sup>2</sup> /0,75 mm <sup>2</sup>	0,75 mm <sup>2</sup> /1,5 mm <sup>2</sup>	
Standard housing	PA (polyamide), glass-fibre reinforced		
Housing with LED	transparent polyamide (PA)		
Cable diameter	4 to 6 mm	6 to 8 mm	6 to 10 mm
Version with LED	-	6 to 8 mm	8 to 10 mm

- For internal/external applications
- IP 65 protection
- Integrated visualisation and electrical protection
- Easy connection and control of power supply to connector size 30 (removable cover)

## YOUR SELECTION

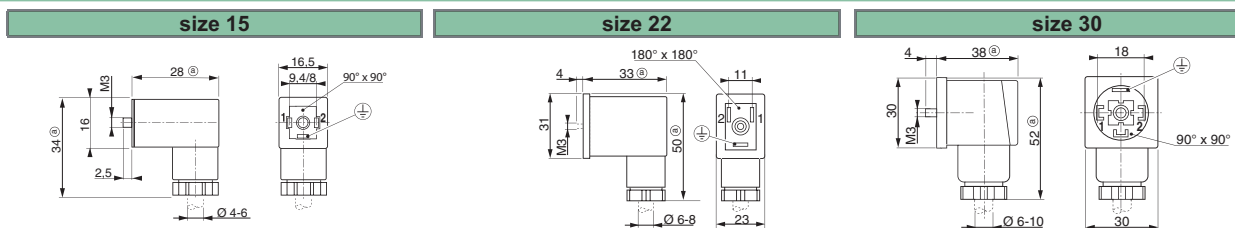
voltage DC (=) / AC (~) V	code			
	size 15 9,4 mm	size 22 8 mm	size 22	size 30
<b>Standard connector</b>				
all	88143581	88130211	88122404	88122602
<b>Connector with cable length of 2 meters</b>				
all	88143567	-	88122413	88122612
<b>Connector with integrated visualisation and protection</b>				
24 V DC/AC	88143580 (1)	-	88122405	88122603
48 V DC/AC	-	-	88122406	88122604
115 V DC/AC	-	-	88122407	88122605
230 V DC/AC	-	-	88122410	88122608
<b>Connector with protection by TRANSIL and LED display for general purpose</b>				
115 V DC/AC	-	-	-	88122618 (2)
115 V DC/AC	-	-	-	88122619 (3)
<b>Connector with protection by TRANSIL and LED display for automobile industry</b>				
24 V DC/AC	-	-	-	88122620 (1)
24 V DC/AC	-	-	-	88122621 (3)

(1) : 2 m cable

(2) : 3 m cable

(3) : 5 m cable

## DIMENSIONS



## OPTIONS AND ACCESSORIES

Batch of 100 connectors,  
standard size 22  
code: **88122421**

Batch of 100 connectors,  
standard size 30  
code: **88122636**



# REPLACEMENT COILS

## YOUR SELECTION

product code	coil type	product code	coil type	product code	coil type	product code	coil type
18900001	C22A-2,5W	SCG256B004VMS	CM22-4W/6,9W	E262K202S1N01H9	MXX-HT	E314K035S1N01FL	MXX-FT
18900002	C22A-2,5W	SCG256B004NVMS	CM22-4W/6,9W	E262K208S1N00FL	MXX-FT	E314K035S1N01FR	MXX-FT
18900010	C22A-2,5W	SCG256B016VMS	CM22-4W/6,9W	E262K208S1N00FR	MXX-FT	E314K035S1N01FT	MXX-FT
18900011	C22A-2,5W	SCG256B402VMS	CM22-4W/6,9W	E262K208S1N00FT	MXX-FT	E314K035S1N01F8	MXX-FT
18900032	CM22-2,5/3 W	SCG256B404VMS	CM22-4W/6,9W	E262K208S1N00F8	MXX-FT	E314K035S1N01F1	MXX-FT
19000005	C25A-3W	SCG256B466VMS	CM25-5/6,9W	E262K208S1N00H1	MXX-HT	E314K035S1N01F9	MXX-FT
19000006	C25A-3W	SCG256B470VMS	CM25-5/6,9W	E262K208S1N00H9	MXX-HT	E314K054S1N00FL	MXX-FT
19000008	C25A-3W	E262K020S1N00FL	M6-FT	E262K208S1N01FL	MXX-FT	E314K054S1N00FR	MXX-FT
19000013	C25A-3W	E262K020S1N00FR	M6-FT	E262K208S1N01FR	MXX-FT	E314K054S1N00FT	MXX-FT
19000014	C25A-3W	E262K020S1N00FT	M6-FT	E262K208S1N01FT	MXX-FT	E314K054S1N00F8	MXX-FT
19000016	C25A-3W	E262K020S1N00F8	M6-FT	E262K208S1N01F8	MXX-FT	E314K054S1N00F1	MXX-FT
19000017	C25A-3W	E262K020S1N00H1	M6-HT	E262K208S1N01H1	MXX-HT	E314K054S1N00F9	MXX-FT
19000018	C25A-3W	E262K020S1N00H9	M6-HT	E262K208S1N01H9	MXX-HT	E314K054S1N01FL	MXX-FT
19000021	C25A-3W	E262K022S1N00FL	M6-FT	E262K208S1E00FL	MXX-FT	E314K054S1N01FR	MXX-FT
19000022	C25A-3W	E262K022S1N00FR	M6-FT	E262K208S1E00FR	MXX-FT	E314K054S1N01FT	MXX-FT
19201001	C30A	E262K022S1N00FT	M6-FT	E262K208S1E00FT	MXX-FT	E314K054S1N01F8	MXX-FT
19201002	C30A	E262K022S1N00F8	M6-FT	E262K208S1E00F8	MXX-FT	E314K054S1N01F1	MXX-FT
19201003	C30A	E262K022S1N00H1	M6-HT	E262K208S1E00H1	MXX-HT	E314K054S1N01F9	MXX-FT
19201007	C30A	E262K022S1N00H9	M6-HT	E262K208S1E00H9	MXX-HT	E314K068S1V00FL	MXX-FT
19201008	C30A	E262K022S1V00FL	M6-FT	E262K212S1N00FL	MXX-FB	E314K068S1V00FR	MXX-FT
19201009	C30A	E262K022S1V00FR	M6-FT	E262K212S1N00FR	MXX-FB	E314K068S1V00FT	MXX-FT
19201022	C30A	E262K022S1V00FT	M6-FT	E262K212S1N00FT	MXX-FB	E314K068S1V00F8	MXX-FT
19201023	C30A	E262K022S1V00F8	M6-FT	E262K212S1N00F8	MXX-FB	E314K068S1V00F1	MXX-FT
19201024	C30A	E262K022S1V00H1	M6-HT	E262K212S1N00H1	MXX-HB	E314K068S1V00F9	MXX-FT
19201028	C30A	E262K022S1V00H9	M6-HT	E262K212S1N00H9	MXX-HB	SCG327B001	CM12-FT
19201029	C30A	E262K023S1N00FL	M6-FB	E262K261S1N00FL	MXX-FT	SCG356B001VMS	CM22-4W/6,9W
19201030	C30A	E262K023S1N00FR	M6-FB	E262K261S1N00FR	MXX-FT	SCG356B002VMS	CM22-4W/6,9W
19201136	C30A	E262K023S1N00FT	M6-FB	E262K261S1N00FT	MXX-FT	SCG356B004VMS	CM22-4W/6,9W
19201137	C30A	E262K023S1N00F8	M6-FB	E262K261S1N00F8	MXX-FT	SCG356B006VMS	CM22-4W/6,9W
19201138	C30A	E262K023S1N00H1	M6-HB	E262K261S1N00H1	MXX-HT	SCG356B053VMS	CM22-4W/6,9W
19201142	C30A	E262K023S1N00H9	M6-HB	E262K261S1N00H9	MXX-HT	SCG356B466VMS	CM25-5/6,9W
19201143	C30A	E262K108S1N00FL	MXX-FT	E262K262S1N00FL	MXX-FT	SCG356B470VMS	CM25-5/6,9W
19201144	C30A	E262K108S1N00FR	MXX-FT	E262K262S1N00FR	MXX-FT	SCE370A002	JMX
EME210C094	CMXX-FT	E262K108S1N00FT	MXX-FT	E262K262S1N00FT	MXX-FT	SCE370A017	CMXX-FT
SCE210B154	CM12-FB/-FT	E262K108S1N00F8	MXX-FT	E262K262S1N00F8	MXX-FT	SCE370A017(MS)	CMXX-FT
SCE210B155	CM12-FB/-FT	E262K108S1N00H1	MXX-HT	E262K262S1N00H1	MXX-HT	SCHTE370A017	CMXX-FT
SCE210B156	CM12-FB/-FT	E262K108S1N00H9	MXX-HT	E262K262S1N00H9	MXX-HT	SCE370A021MS	CMXX-FT
SCE210C033	CMXX-FT	E262K202S1N00FL	MXX-FT	G262K002S1N00FL	M6-FT	SCE370A046	CMXX-FT
SCE210C034	CMXX-FT	E262K202S1N00FR	MXX-FT	E262K002S1N00FR	M6-FT	55102009	CM22-2,5W
SCE210C035	CMXX-FT	E262K202S1N00FT	MXX-FT	G262K002S1N00FT	M6-FT	55102011	CM22-2,5W
SCE210C093	CMXX-FT	E262K202S1N00F8	MXX-FT	G262K002S1N00F8	M6-FT	SCG551A001MS	CM22-2,5/3 W
SCE210C094	CMXX-FT	E262K202S1N00H1	MXX-HT	E262K002S1N00H1	M6-HT	SCG551A002MS	CM22-2,5/3 W
SCE210D001	CM6-FT	E262K202S1N00H9	MXX-HT	G262K002S1N00H9	M6-HT	SCG551A005MS	CM22-2,5/3 W
SCE210D002	CM6-FT	E262K232S1N00FL	MXX-FT	E263K124S1N01FL	MXX-FT	SCG551A017MS	CM22-2,5/3 W
SCE210D009	CM6-FT	E262K232S1N00FR	MXX-FT	E263K124S1N01FR	MXX-FT	SCG551A018MS	CM22-2,5/3 W
SCE210D022	CM6-FT	E262K232S1N00FT	MXX-FT	E263K124S1N01FT	MXX-FT	SCG551A067MS	CM22-2,5/3 W
SCE210D095	CMXX-FT	E262K232S1N00F8	MXX-FT	E263K124S1N01F8	MXX-FT		
SCE210-100	CMXX-FT	E262K232S1N00H1	MXX-HT	E263K124S1N01H1	MXX-HT		
SCE220A021	CMXX-HT	E262K232S1N00H9	MXX-HT	E263K124S1N01H9	MXX-HT		
SCE220-025	CMXX-HT/CM12-FT	E262K232S1N01FL	MXX-FT	E263K195S1N01FL	MXX-FT		
SCE222B094	CMXX-FT/CM12-FT	E262K232S1N01FR	MXX-FT	E263K195S1N01FR	MXX-FT		
SCE222B095	CMXX-FT/CM12-FT	E262K232S1N01FT	MXX-FT	E263K195S1N01FT	MXX-FT		
SCE222E002LT	CMXX-FT/CM12-FT	E262K232S1N01F8	MXX-FT	E263K195S1N01F8	MXX-FT		
SCE238D001	CM22-4W/6,9W	E262K232S1N01H1	MXX-HT	E263K195S1N01H1	MXX-HT		
SCE238D001(MO)	CM22-4W/6,9W	E262K232S1N01H9	MXX-HT	E263K195S1N01H9	MXX-HT		
SCE238D002	CM22-4W/6,9W	E262K090S1N00FL	M6-FT	E263K200S1N01FL	MXX-FT		
SCE238D002(MO)	CM22-4W/6,9W	E262K090S1N00FR	M6-FT	E263K200S1N01FR	MXX-FT		
SCE238D003	CM22-4W/6,9W	E262K090S1N00FT	M6-FT	E263K200S1N01FT	MXX-FT		
SCE238D003(MO)	CM22-4W/6,9W	E262K090S1N00F8	M6-FT	E263K200S1N01F8	MXX-FT		
SCE238D004	CM22-4W/6,9W	E262K090S1N00H1	M6-HT	E263K200S1N01H1	MXX-HT		
SCE238D004(MO)	CM22-4W/6,9W	E262K090S1N00H9	M6-HT	E263K200S1N01H9	MXX-HT		
SCE238D005	CM22-4W/6,9W	E262K108S1N01FL	MXX-FT	E263K331S1N01FL	MXX-FT		
SCE238D005(MO)	CM22-4W/6,9W	E262K108S1N01FR	MXX-FT	E263K331S1N01FR	MXX-FT		
SCE238D006	CM25-5/6,9W	E262K108S1N01FT	MXX-FT	E263K331S1N01FT	MXX-FT		
SCE238D006(MO)	CM25-5/6,9W	E262K108S1N01F8	MXX-FT	E263K331S1N01F8	MXX-FT		
SCE238D007	CM25-5/6,9W	E262K108S1N01H1	MXX-HT	E263K331S1N01H1	MXX-HT		
SCE238D008	CM25-5/6,9W	E262K108S1N01H9	MXX-HT	E263K331S1N01H9	MXX-HT		
SCE238D008(MO)	CM25-5/6,9W	E262K182S1N01FL	MXX-FT	SCB263-209LT	CMXX-FT		
SCE238D009	CM25-5/6,9W	E262K182S1N01FR	MXX-FT	SCB263A210LT	CMXX-FT		
SCE238D010	CM25-5/6,9W	E262K182S1N01FT	MXX-FT	SCE263-209LT	CMXX-FT		
SCG238A044	CM6-FT	E262K182S1N01F8	MXX-FT	SCE263A210LT	CMXX-FT		
SCG238A046	CM6-FT	E262K182S1N01H1	MXX-HT	SCE263B206LT	CMXX-FT		
SCG238A047	CM6-FT	E262K182S1N01H9	MXX-HT	E314K008S1V00FL	MXX-FT		
SCG238A048	CM6-FT	E262K184S1N01FL	MXX-FT	E314K008S1V00FR	MXX-FT		
SCG238A050	CM6-FB	E262K184S1N01FR	MXX-FT	E314K008S1V00FT	MXX-FT		
SCG238C016	ANX-7,5W	E262K184S1N01FT	MXX-FT	E314K008S1V00F8	MXX-FT		
SCG238C017	ANX-7,5W	E262K184S1N01F8	MXX-FT	E314K008S1V00F1	MXX-FT		
SCG238C017(MO)	ANX-7,5W	E262K184S1N01H1	MXX-HT	E314K008S1V00F9	MXX-FT		
SCG238C018	ANX-7,5W	E262K184S1N01H9	MXX-HT	E314K035S1N00FL	MXX-FT		
SCG240A101	BMX-6W	E262K202S1N01FL	MXX-FT	E314K035S1N00FR	MXX-FT		
SCG240A103	AMX-6W	E262K202S1N01FR	MXX-FT	E314K035S1N00FT	MXX-FT		
SCG256B001VMS	CM22-4W/6,9W	E262K202S1N01FT	MXX-FT	E314K035S1N00F8	MXX-FT		
SCG256B002VMS	CM22-4W/6,9W	E262K202S1N01F8	MXX-FT	E314K035S1N00F1	MXX-FT		
SCG256B003VMS	CM22-4W/6,9W	E262K202S1N01H1	MXX-HT	E314K035S1N00F9	MXX-FT		

# REPLACEMENT COILS

## YOUR SELECTION

coil type	code						
	Alternating current (AC) (~) (50Hz)				Direct current (DC)		
	24V ~	48V ~	115V ~	230V ~	24V =	48V =	
 AMX-6W	43005153	-	43005155	43005157	-	-	
 ANX-7,5W	43005273	-	43005274	43005275	43005272	-	
 BMX-6W	43005168	-	43005169	43005171	-	-	
 CM6-FB	400325-201	400325-205	400325-218	400325-217	400325-242	400325-244	
	CM6-FT	400325-101	400325-105	400325-118	400325-117	400325-142	400325-144
 CMXX-FT	400425-101	400425-105	400425-118	400425-117	400425-142	400425-144	
	CMXX-HT	400426-101	400426-105	400426-118	400426-117	400426-142	400426-144
 CM12-FB/-FT	400525-101	400525-105	400525-118	400525-117	400625-242	400625-244	
	CM12-FT	400525-101	400525-105	400525-118	400525-117	400625-142	400625-144
 CM22 - 4W/6,9W	400127-181	400127-185	400127-198	400127-197	400127-142	400127-144	
	CM22 - 2,5/3W (series 189 banjo/SCG551)	400127-081	400127-085	400127-098	400127-097	400904-542	400904-544
 C22A-2,5W (series 189/551)	43004416	43004417	43004419	43004422	43004166	43004167	
 CM25 - 5/6,9W	400727-181	400727-185	400727-118	400727-117	400727-185	400727-118	
 C25A-3W	43004469	43004473	43004471	43004472	43004473	43004471	
 C30A	43005604	43005611	43005617	43005627	43005642	-	
 JMX	43005090	43005091	43005093	43005096	43005099	43005100	
	M6-FT	238213-006	238213-016	238213-033	238213-059	-	-
	M6-HT	-	-	-	-	238513-006	238513-017
	M6-FB	238213-106	238213-116	238213-133	238213-157	-	-
	M6-HB	-	-	-	-	238513-106	238513-117
 MXX-FT	238613-006	238613-016	238613-033	238613-059	238713-006	238713-017	
	MXX-HT	-	-	-	238913-006	238913-017	
	MXX-FB	238613-106	238613-116	238613-133	238613-159	-	-
MXX-HB	-	-	-	-	238913-106	238913-117	

# HOW TO ORDER

## VALVES

### Example of configuration (piston-type valve)



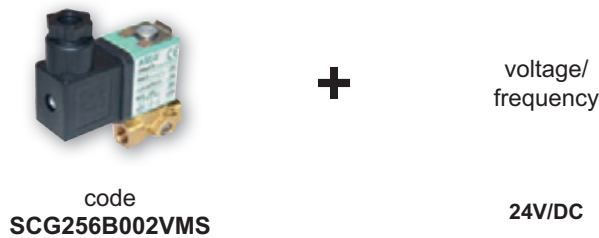
## SOLENOID VALVES

### Example of new 15-digit product code

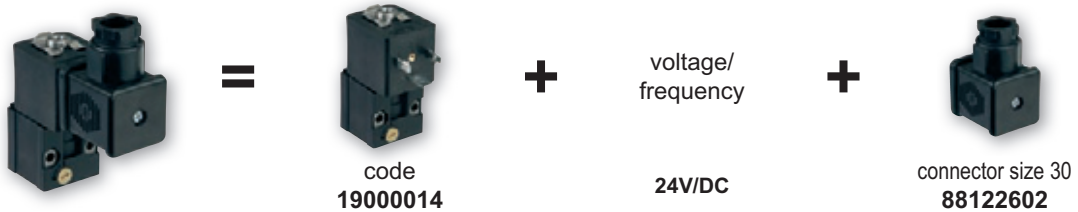


15-DIGIT PRODUCT CODE (integrating the voltage/frequency)  
**E262K020S1N00F8**

### Example of configuration (solenoid valve with connector)

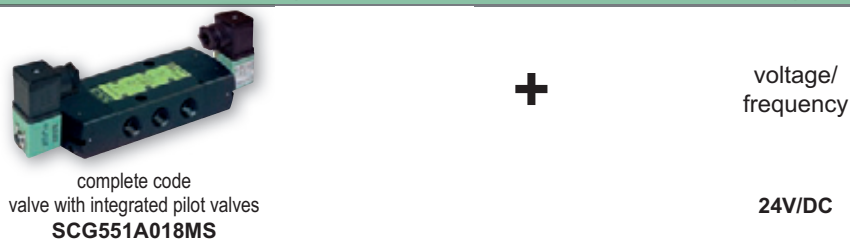


### Example of configuration (solenoid valve with connector)



## SPOOL VALVES

### Example of configuration (threaded spool valve, solenoid air operated)



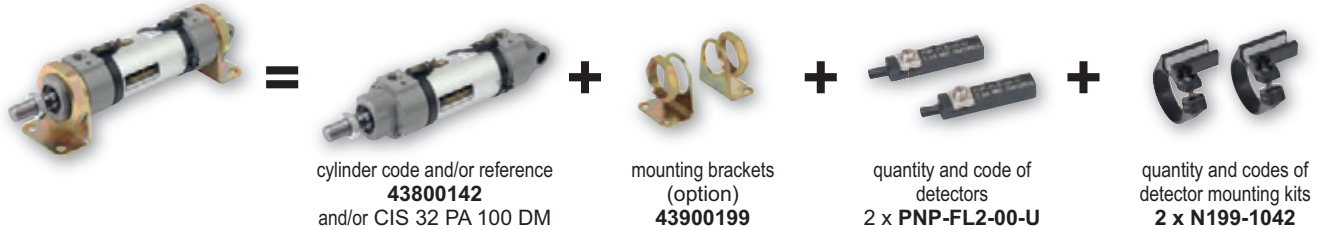
# HOW TO ORDER

## CYLINDERS

### Example of configuration (new 453 series - 15-DIGIT PRODUCT CODE)

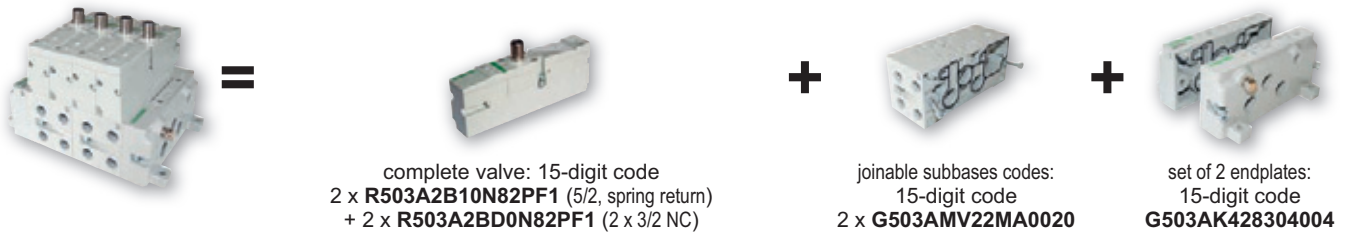


### Example of configuration (Isoclair cylinder)



## SPOOL VALVES

### Example of configuration (spool valve ISO 15407-1 26 mm, with subbase, solenoid air operated)



## AIR SERVICE EQUIPMENT

### Example of configuration (filter/regulator + lubricator)



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Code	Page	Code	Page	Code	Page	Code	Page	Code	Page
010653	30	010780	30	19201143	49	E262K262S1N00	10	E290B028	8
010654	30	010781	30	19201144	49	26390002	52	E290B036	7
010655	30	010782	30	SCE210B154	12	26390005	53	E290B037	7
010656	30	010783	30	SCE210B155	12	E263K124S1N01	10	E290B038	7
010657	30	010784	30	SCE210B156	12	E263K200S1N01	10	E290B045	7
010661	30	010785	30	SCE210C033	12	E263K195S1N01	11	E290B047	7
010662	30	010786	30	SCE210C034	12	E263K331S1N01	11	E290B048	7
010663	30	010787	30	SCE210C035	12	SCE263-209LT	11	E290B051	7
010664	30	010788	30	SCE210C093	12	SCE263A210LT	11	E290B052	7
010665	30	010789	30	SCE210C094	12	SCE263B206LT	11	E290B053	7
010666	30	010790	30	SCE210D001	13	26490026	52	E290B054	7
010667	30	010791	30	SCE210D002	13	26690001	52	E290B069	8
010669	30	010792	30	SCE210D004	13	26690003	52	E290B070	8
010670	30	010793	30	SCE210D009	13	26690017	53	E290B071	8
010671	30	010794	31	SCE210D022	13	26690018	53	E290B079	7
010672	30	010795	31	SCE210D095	12	26790001	52	E290B080	7
010673	30	010796	31	SCE210-100	13	26790002	52	E290C	5
010674	30	010797	31	SCE220A021	14	26790013	53	P290CA430078001	5
010675	30	010798	31	SCE220-025	14	28490040	53	G3	80
010676	30	010799	31	SCE222B094	14	28490041	53	30210112--P	47
010677	30	010800	31	SCE222B095	14	28490043	53	30211109--D	47
010678	30	010801	31	SCE222E002LT	14	28490001	52	30211109--P	47
010679	30	010802	31	238213-006	105	28490002	52	30211112--D	47
010680	30	010803	31	238213-016	105	28490005	52	30211112--P	47
010681	30	010804	31	238213-033	105	28590213	52	30211113--D	47
010682	30	010805	31	238213-059	105	28590215	52	30211113--P	47
010683	30	010806	31	238213-106	105	28590238	53	30211122--D	47
010684	30	010807	31	238213-116	105	28590239	53	30211122--P	47
010685	31	010808	31	238213-133	105	28690023	52	30211127--D	47
010686	31	010809	31	238213-157	105	28690026	53	30211178--P	51
010687	31	010832	30	238613-006	105	SCG287A001	18	30211179--P	51
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