

## FEATURES

- Reliability: steel spool & sleeve technology with long service life
- Modular assembly with joinable subbases
- Subbases with side or bottom ports

## GENERAL

|                            |   |
|----------------------------|---|
| <b>Fluid</b>               | Air or neutral gas, filtered, lubricated or not   |
| <b>Operating pressure</b>  | +1 to +10 bar (with internal supply to pilot)<br>-0,950 to +12 bar (with external supply to pilot)                  |
| <b>Ambient temperature</b> | -10°C to +60°C  |
| <b>Flow (Qv at 6 bar)</b>  | ISO 1: 1400 l/min (ANR)<br>ISO 2: 2800 l/min (ANR)<br>ISO 3: 4200 l/min (ANR)                                       |
| <b>Response time</b>       | See tables choice of equipment  |
| <b>Life</b>                | 200 millions of cycles  |
| <b>Base</b>                | ISO 5599/1 sizes 1-2-3 - AFNOR NF E49080  |
| <b>Subbase</b>             | Single subbase ISO/AFNOR NF E49085<br>Joinable subbase ISO/VDMA 24345<br>Joinable subbase with integrated functions |



## CONSTRUCTION

|                     |  |
|---------------------|--|
| <b>Body</b>         | Aluminium  |
| <b>Other parts</b>  | Stainless steel, steel, aluminium alloy or plastic |
| <b>Static Seals</b> | NBR (nitrile)                                      |

## PILOTS

Solenoid valves 3/2 NC, series 190, pad mounting ISO 15218 (size 30)

## ELECTRICAL CHARACTERISTICS

| voltage |                         | consumption |            | insulation class | protection degree | electrical connection  |
|---------|-------------------------|-------------|------------|------------------|-------------------|--|
| ~       | =                       | inrush      | hold       |                  |                   |  |
| ~       | 24V-48V-115V-230V/50 Hz | 9 VA        | 4 VA (3 W) | F                | IP 65             | spade plug size 30 connector, ISO4400/EN175301-803, form A, rotatable by 90° |
| =       | 24V-48V                 | 3 W         |            |                  |                   |  |

The solenoid valve 190 is dual-voltage (24V~, 12V=) (48V~, 24V=) (115V~, 48V=) (230V~, 110V=)

## SPECIFICATIONS

| function symbol     | operators pilot (14) solenoid air operated return (12) | size  | response time (ms) |              | pilot pressure (bar) |  | 2 catalogue numbers                    |  |             |
|---------------------|--|-------|--------------------|--------------|----------------------|--|--|--|-------------|
|                     |  |       | energized          | de-energized | min.                 | max.                                   | valve                                  | + solenoid pilot quantity & catalogue number with standard connector | (M)         |
|                     | spring return  | ISO 1 | 15                 | 35           | 1                    | 10                                     | C12BA400-X<br>C23BA400-X<br>C34BA400-X | + 1x {<br>19000005<br>19000006<br>19000017                           | ×<br>●<br>▼ |
|                     |  | ISO 2 | 20                 | 35           |                      |  |  |  |             |
|                     |  | ISO 3 | 20                 | 90           |                      |  |  |  |             |
|                     | Solenoid air operated return                           | ISO 1 | 15                 | 15           | 1                    | 10                                     | C12BB400-X<br>C23BB400-X<br>C34BB400-X | + 2x {<br>19000005<br>19000006<br>19000017                           | ×<br>●<br>▼ |
|                     |  | ISO 2 | 15                 | 15           |                      |  |  |  |             |
|                     |  | ISO 3 |                    |              |                      |  |  |  |             |
|                     | pressure hold W1                                       | ISO 1 | 15                 | 35           | 1                    | 10                                     | C12BB600-X<br>C23BB600-X<br>C34BB600-X |  |             |
|                     |  | ISO 2 | 20                 | 20           |                      |  |  |  |             |
|                     |  | ISO 3 |                    |              |                      |  |  |  |             |
| pressure applied W2 | ISO 1  | 15    | 35                 | 1            | 10                   | C12BB700-X<br>-<br>C34BB700-X          |  |  |             |
|                     | ISO 2  |       |                    |              |                      |  |  |  |             |
|                     | ISO 3  |       |                    |              |                      |  |  |  |             |
| pressure release W3 | ISO 1  | 15    | 35                 | 1            | 10                   | C12BB500-X<br>C23BB500-X<br>C34BB500-X |  |  |             |
|                     | ISO 2  | 20    | 20                 |              |                      |  |  |  |             |
|                     | ISO 3  |       |                    |              |                      |  |  |  |             |

(M) Type of manual operator on pilot(s): × : without ● : maintained ▼ : impulse

**When ordering**, please specify in addition to the basic solenoid valve catalogue number:  
the type of current: voltage / frequency of the solenoid valve  
Example : **C12BB400-X + 2 x 19000017 24V/DC**

**OPTIONS**

- 3/2 solenoid valves piloting: [series 189](#), [series 190 with M12 connection](#), [series 192](#)
- 16 bar version (wide ambient temperature range: -10°C to +90°C):

| type of valve    | (M) | catalogue number |
|------------------|-----|------------------|
| 190 NF<br>16 bar | ×   | 19060016         |
|                  | ●   | 19060019         |
|                  | ▼   | 19060017         |

- Material and solenoid pilot valve for use in potentially **explosive atmospheres** caused by gases or dusts - ATEX directive 2014/34/EU (contact us)
- [Connector with cable 2 m long](#)
- [Connector with transil protection](#)
- Solenoid valve with plug and built-in visual control and protection :

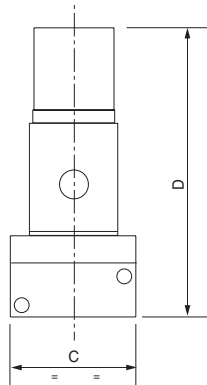
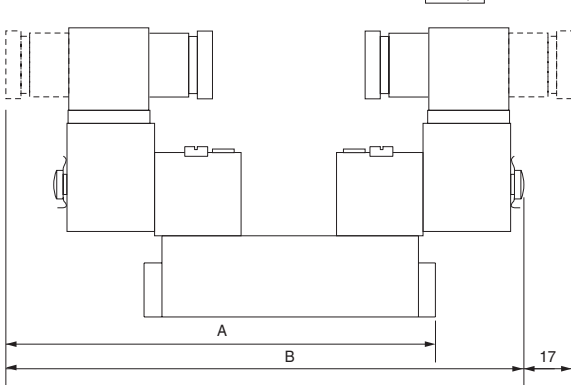
Solenoid valve **without** connector + Connector with built-in visual control and VDR/RC protection

| type of valve | (M) | catalogue number<br>solenoid valve<br>without connector | catalogue number (~ / =) |          |          |          |
|---------------|-----|---|--------------------------|----------|----------|----------|
|               |     |   | 24V                      | 48V      | 115V     | 230V     |
| 190 NF        | ×   | 19000013  | 88122603                 | 88122604 | 88122605 | 88122608 |
|               | ●   | 19000014  |                          |          |          |          |
|               | ▼   | 19000018  |                          |          |          |          |

(M) Type of manual operator on pilot(s) : × : without ● : maintained ▼ : impulse

**SUBBASES AND ACCESSORIES** : [see preceding pages](#)

**DIMENSIONS (mm), WEIGHT (kg)**



| size | type | A     | B     | C    | D     | weight (kg) |
|------|------|-------|-------|------|-------|-------------|
| ISO1 | BA   | 136,0 | —     | 42,0 | 102,0 | 0,50        |
|      | BB   | —     | 168,0 | 42,0 | 102,0 | 0,60        |
| ISO2 | BA   | 149,0 | —     | 50,8 | 104,6 | 0,70        |
|      | BB   | —     | 169,0 | 50,8 | 104,6 | 0,80        |
| ISO3 | BA   | 179,0 | —     | 63,5 | 114,0 | 1,10        |
|      | BB   | —     | 196,7 | 63,5 | 114,0 | 1,26        |

incl. bolts and gaskets

## FEATURES

- M12 connection: Prevents wiring errors, reduces installation time and reduces wiring costs
- Modular assembly with joinable subbases

## GENERALITES

|                            |   |
|----------------------------|---|
| <b>Fluid</b>               | Air or neutral gas, filtered, lubricated or not   |
| <b>Operating pressure</b>  | +1 to +10 bar with internal supply to pilot)<br>-0,950 to +10 bar (with external supply to pilot)                   |
| <b>Ambient temperature</b> | -10°C to +50°C  |
| <b>Flow (Qv at 6 bar)</b>  | ISO1: 1400 l/min (ANR)<br>ISO2: 2400 l/min (ANR)  |
| <b>Response time</b>       | 200 millions of cycles  |
| <b>Base</b>                | ISO 5599/1 sizes 1-2-3 - AFNOR NF E49080  |
| <b>Subbase</b>             | Single subbase ISO/AFNOR NF E49085<br>Joinable subbase ISO/VDMA 24345<br>Joinable subbase with integrated functions |



## CONSTRUCTION

|                     |  |
|---------------------|--|
| <b>Body</b>         | Aluminium  |
| <b>Other parts</b>  | Stainless steel, steel, aluminium alloy or plastic |
| <b>Static Seals</b> | NBR (nitrile)                                      |

## ELECTRICAL CHARACTERISTICS

| voltage    | consumption | insulation class | protection degree | electrical connection  |
|------------|-------------|------------------|-------------------|--|
| 24 VCC (=) | 2,5 W       | F                | IP 65             | centralised M12 connection to VDMA 24571 (ISO/CD 20401) with integral LED and surge suppression (yellow LED) |

## SPECIFICATIONS

| function symbol | operators pilot (14) solenoid air operated return (12) | size           | response time (ms) |               | pilot pressure (bar) |      | catalogue numbers                  |     |
|-----------------|--|----------------|--------------------|---------------|----------------------|------|------------------------------------|-----|
|                 |  |                | ener-gized         | de-ener-gized | min.                 | max. |                                    | (M) |
|                 | rappel ressort   | ISO 1<br>ISO 2 | 20<br>15           | 32<br>36      | 1                    | 10   | C12BA400RA26Y61<br>C23BA400RA26Y61 | ▼   |
|                 | rappel électropneumatique                              | ISO 1<br>ISO 2 | 20<br>15           | -<br>-        | 1                    | 10   | C12BB400RA26Y61<br>C23BB400RA26Y61 | ▼   |
|                 | centre fermé <b>W1</b>                                 | ISO 1<br>ISO 2 | 20<br>15           | 32<br>36      | 1                    | 10   | C12BB600RA26Y61<br>C23BB600RA26Y61 | ▼   |
|                 | centre ouvert à la pression <b>W2</b>                  | ISO 1<br>ISO 2 | 20<br>15           | 32<br>36      | 1                    | 10   | C12BB700RA26Y61<br>-               | ▼   |
|                 | centre ouvert à l'échappement <b>W3</b>                | ISO 1<br>ISO 2 | 20<br>15           | 32<br>36      | 1                    | 10   | C12BB500RA26Y61<br>C23BB500RA26Y61 | ▼   |

(M) Type of manual operator on pilot(s): ▼ : impulse

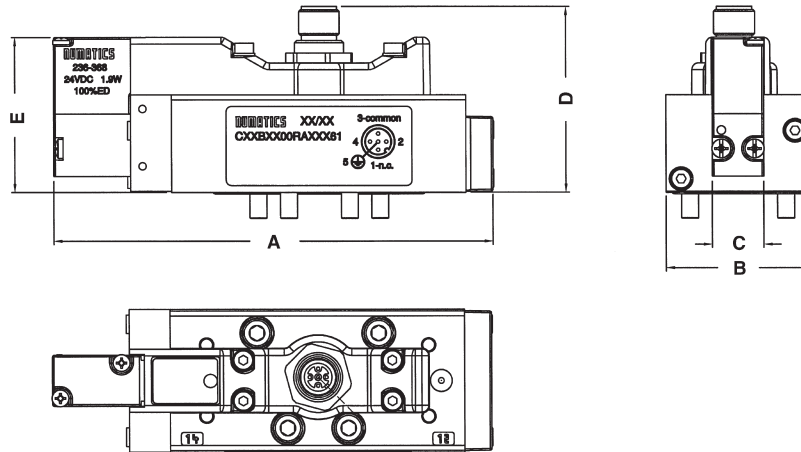
**OPTIONS**

- 16 bar, on request

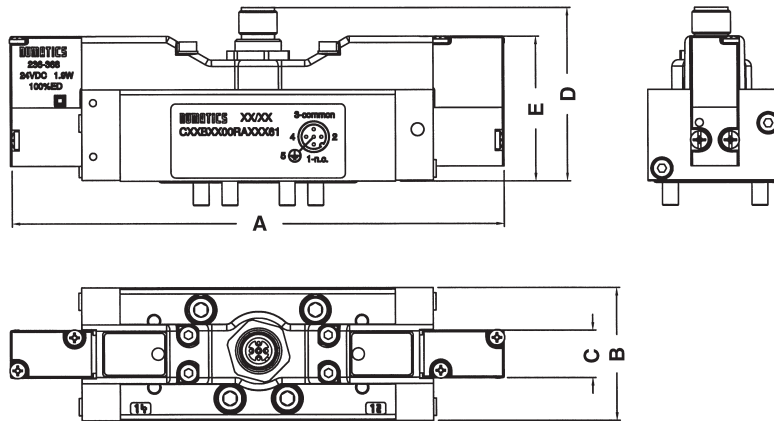
**SUBBASES AND ACCESSORIES :** [see preceding pages](#)

**DIMENSIONS (mm), WEIGHT (kg)**

**monostable spool valve**  
**ISO 1 and ISO 2**



**bistable and 5/3 spool valve**  
**ISO 1 and ISO 2**



| size | type | A     | B    | C    | D    | E    | weight (kg) |
|------|------|-------|------|------|------|------|-------------|
| ISO1 | BA   | 129,4 | 42,1 | 15,0 | 54,8 | 45,7 | 0,50        |
|      | BB   | 155,4 | 42,1 | 15,0 | 54,8 | 45,7 | 0,55        |
| ISO2 | BA   | 150,2 | 50,8 | 15,0 | 57,6 | 48,6 | 0,70        |
|      | BB   | 175,9 | 50,8 | 15,0 | 57,6 | 48,6 | 0,80        |

incl. bolts and gaskets