



# Piston Pumps with Reservoir

for progressive and multiline systems

for grease up to NLGI grade 2

KFA1 / KFA10



KFGS1-5



KFG10-5W2



Because of their delivery rates and reservoir capacities these grease pump units are designed to supply small- and medium-size systems. They come with 2 or 3 pump outlet ports.

The possible operating voltages are 90 to 264 V AC, 47 to 440 Hz, or 12 or 24 V DC.

Safety elements like pressure-limiting valves, overpressure indicators or rupture discs must be provided for in order to protect the pump unit from overloads.

Information on this point can also be found in leaflet 1-0107-6-US, page 3 "Accessories".

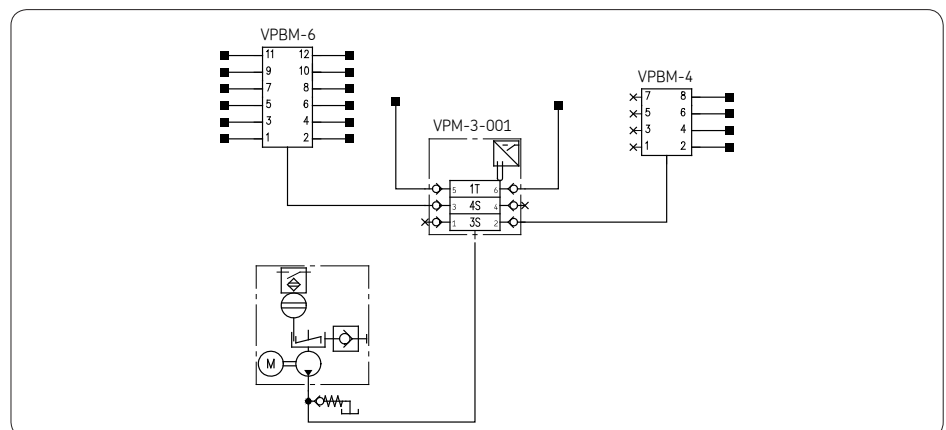


Diagram of a modular progressive system with KFA10-W pump unit



# VOGEL

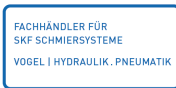
HYDRAULIK · PNEUMATIK

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#### Hauptsitz Senftenberg

Laugfeld 21, 01968 Senftenberg Tel: 03573 14 80-0  
Bereitschaft: 0160 718 15 82 E-Mail: senftenberg@vogel-gruppe.de

#### Niederlassung Dresden

Niedersedlitzer Str. 75 . 01257 Dresden Tel:0351 79 57 178  
Bereitschaft: 0160 71 81 584 E-Mail: dresden@vogel-gruppe.de

#### Niederlassung Frankfurt/Oder

Wildbahn 8, 15236 Frankfurt/Oder Tel: 0335 52 15 081  
Bereitschaft: 0160 71 81 584 E-Mail: frankfurt@vogel-gruppe.de

#### Niederlassung Genshagen & Rohrbiegezentrum

Seestr. 20, 14974 Genshagen Tel: 03378 87 90 67  
Bereitschaft: 0171 22 65 930 E-Mail: genshagen@vogel-gruppe.de

#### Vertriebsgebiet Leipzig

Tel.: +49 160 7181581 . E-Mail: leipzig@vogel-gruppe.de

#### Niederlassung Schöneiche

August-Borsig-Ring 15, 15566 Schöneiche Tel: 030 64 93 581  
Bereitschaft: 0160 71 81 590 E-Mail: schoeneiche@vogel-gruppe.de

Industrie-Hydraulik Vogel & Partner GmbH .  
Laugfeld 21 . 01968 Senftenberg, Tel.: 03573 1480-0  
info@vogel-gruppe.de . [www.vogel-gruppe.de](http://www.vogel-gruppe.de)

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## System overview

Order No.	Control	Lubricant level switch	Lubricant	Operating voltage	Page
KFA1-M	external	–	grease up to NLGI 2	24 V DC	4
KFA1-M-S2	external	–	grease up to NLGI 2	24 V DC	4
KFA1-M-W	external	mechanical	grease up to NLGI 2	24 V DC	4
KFA1-M-W-S2	external	mechanical	grease up to NLGI 2	24 V DC	4
KFA1-M-W-S4	external	mechanical	grease up to NLGI 2	24 V DC	4
KFA1-M-W-S20	external	mechanical	grease up to NLGI 2	24 V DC	4
KFA10	external	–	grease up to NLGI 2	115 V / 50 or 60 Hz	4
KFA10	external	–	grease up to NLGI 2	230 V / 50 or 60 Hz	4
KFA10-W-S2	external	mechanical	grease up to NLGI 2	230 V / 50 Hz	4
KFA10-W-S3	external	mechanical	grease up to NLGI 2	230 V / 50 Hz	4
KFAS1-M	internal	–	grease up to NLGI 2	12 / 24 V DC	6
KFAS1-M-W	internal	mechanical	grease up to NLGI 2	12 / 24 V DC	6
KFAS1-M-W-S2	internal	mechanical	grease up to NLGI 2	12 / 24 V DC	6
KFAS1-M-W-Z	internal	mechanical	grease up to NLGI 2	12 / 24 V DC	6
KFAS10	internal	–	grease up to NLGI 2	cf. switched-mode power supply	6
KFAS10-W	internal	mechanical	grease up to NLGI 2		
KFG1-5	external	–	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	8
KFG1-5W2-M	external	capazitive	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	8
KFG3-5	external	–	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	8
KFG3-5W2-M	external	capazitive	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	8
KFG1-5W1-M	external	mechanical	grease up to NLGI 2	12 / 24 V DC	10
KFG3-5W1-M	external	mechanical	grease up to NLGI 2	12 / 24 V DC	10
KFG10-5	external	–	grease up to NLGI 000, 00, 0, 1	cf. switched-mode power supply	12
KFG10-5W2	external	capazitive	grease up to NLGI 000, 00, 0, 1		
KFG30-5	external	–	grease up to NLGI 000, 00, 0, 1		
KFG30-5W2	external	capazitive	grease up to NLGI 000, 00, 0, 1		
KFGS1-5	internal	–	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	14
KFGS1-5W2-M	internal	capazitive	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	14
KFGS3-5	internal	–	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	14
KFGS3-5W2-M	internal	capazitive	grease up to NLGI 000, 00, 0, 1	12 / 24 V DC	14
KFGS10-5	internal	–	grease up to NLGI 2	cf. switched-mode power supply	16
KFGS10-5W1	internal	mechanical	grease up to NLGI 2		
KFGS30-5	internal	–	grease up to NLGI 2		
KFGS30-5W1	internal	mechanical	grease up to NLGI 2		

## Models KFA1-M(-W) / KFA10(-W)



The pump can be outfitted with a maximum of two pump elements.

Versions for various operating voltage are available.

Order No	Voltage key	Operating voltage
KFA1-M	+924	24 V DC
KFA1-M-S2	+924	24 V DC
KFA10	+257	115 V / 50 Hz
KFA10	+263	230 V / 50 Hz
KFA10	+757	115 V / 60 Hz
KFA10	+763	230 V / 60 Hz

with lubricant level switch

KFA1-M-W	+924	24 V DC
KFA1-M-W-S2	+924	24 V DC
KFA1-M-W-S4	+924	24 V DC
KFA1-M-W-S20	+924	24 V DC
KFA10-W-S2	+263	230 V / 50 Hz
KFA10-W-S3	+263	230 V / 50 Hz

Pressure-limiting valves

tube diam.	Order No.	Opening pressure [bar]	Connection thread
6	161-210-042	120	
6	161-210-032	200	
6	161-210-016	300	
8	161-210-041	120	M14×1.5
8	161-210-031	200	
10	161-210-040	120	
10	161-210-030	200	

Pump elements

Order No	Delivery rate <sup>1)</sup> [ccm/min]	Connection thread
KFA1.U1	2	
KFA1.U2	1.5	M14×1.5
KFA1.U3	1	

1) The indicated delivery rates refer to the delivery of NLGI grade 2 grease at a temperature of +20 °C and a back pressure of 50 bars. Temperatures and pressures that deviate therefrom will change the delivery rate. Take the indicated values as a basis when configuring a centralized lubrication system.

Please indicate in addition to the order No.:  
operating voltage, quantity and order No. of pump elements with pressure-limiting valve.

Order example

KFA1-M-W, 24 V DC

outfitted with pump element

KFA1.U1 (outlet 1.1)

KFA1.U3 (outlet 1.2) and

2 pressure-limiting valves 161-210-042

**Notice:**

The installation's ambient surroundings and cable connections have a decisive influence on the unit's electromagnetic compatibility. During the installation it is therefore necessary to assure the EMC of the entire system.

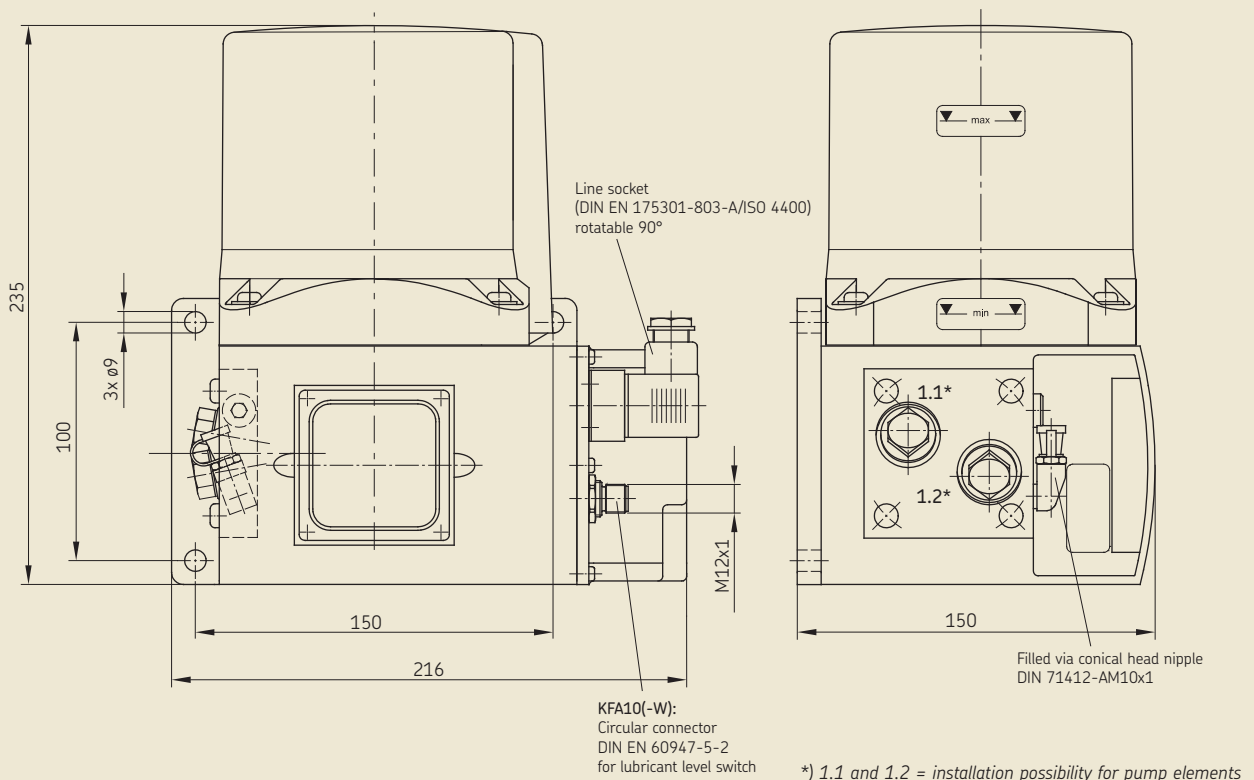
**Applicable protection measures for operation:**

- "Protective Extra Low Voltage" (PELV)  
Standards: IEC 60204-1; HD 384.4.41 (DIN VDE 0100-410)
- The unit has to be disconnected for insulation and voltage tests to EN 602041:1992.

Operating instructions for KFA and KFAS piston pumps:  
951-130-185-US

## Piston Pumps with Reservoir

### KFA1-M, KFA10 / KFA1-M-W, KFA10-W (with mechanical lubricant level switch)



#### Technical data

##### Model KFA1-M

Operating voltage	24 V DC
Typ. power consumption at max. operating pressure and 20 °C	0.5 A at 24 V
Max. back pressure	300 bars
Mode/ON time	S3 – 20% – 50 minutes
Perm. operating temperature	–25 °C to +75 °C

##### Model KFA10

Operating voltage	115 V AC, 50 or 60 Hz 230 V AC, 50 or 60 Hz
Typ. power consumption at max. operating pressure and 20 °C	1,54 A at 115 V / 50 Hz 1,08 A at 115 V / 60 Hz 0,77 A at 230 V / 50 Hz 0,54 A at 230 V / 60 Hz
Max. back pressure	300 bars
Mode/ON time	S3 – 10% – 50 Minuten
Perm. operating temperature	0 °C to +40 °C

##### Model Typ KFA1-M and KFA10

Type of enclosure DIN EN 60529	IP 55
Reservoir capacity	1 kg
Number of outlet ports	max. 2 (1.1 and 1.2)

Lubricant <sup>2)</sup> grease up to NLGI grade 2  
with EP additives,  
max. flow pressure 700 mbar

##### Lubricant level switch

Type of contact	1 changeover
Max. rated voltage	24 V DC
Max. switching current	0.5 A
Socket box	M12x1 (4-PIN)

<sup>2)</sup> Please note:  
Only use grease that has been approved by Willy Vogel AG.

## Models KFAS1-M(-W) / KFAS10(-W) with integral control unit and power pack



The pump can be outfitted with a maximum of two pump elements.

Order No.	Voltage key	Operating voltage
KFAS1-M	+924	24 V DC
KFAS10	+485	cf. switched-mode power supply

with lubricant level switch

KFAS1-M-W	+924	24 V DC
KFAS1-M-W-S2	+924	24 V DC
KFAS1-M-W-Z	+924	24 V DC
KFAS10-W	+485	cf. switched-mode power supply

Please indicate in addition to the order No.:  
operating voltage, quantity and order No. of pump elements with pressure-limiting valve.

### Order example

KFAS10-W+485 outfitted with pump element  
KFA1.U1 (outlet 1.1)  
KFA1.U3 (outlet 1.2) and  
2 pressure-limiting valves 161-210-042

Pump elements and pressure-limiting valves cf. page 4.

### Technical data

#### Unit

Max. back pressure . . . . . 300 bars  
Mode / ON time . . . . . S3 – 20% – 50 minutes  
Reservoir capacity . . . . . 1 kg  
Number of outlet ports . . . . . max. 2 (1.1 and 1.2)

#### Model KFAS1-M(-W)

Operating voltage . . . . . 24 V DC  
Perm. operating temperature . . . . . –25 °C to +75°C  
Type of enclosure DIN EN 60529 . . . . . IP 55

#### Model KFAS10(-W)

Operating voltage . . . . . cf. power supply  
Perm. operating temperature . . . . . –25 °C to +60 °C  
Type of enclosure DIN EN 60529 . . . . . IP 65

Lubricant <sup>2)</sup> . . . . . grease up to NLGI grade 2  
with EP additives,  
max. flow pressure 700 mbar

#### Integral control unit

Mode and parameters  
Interval, adjustable . . . . . 0,1 ... 99,9 h  
Contact, adjustable . . . . . 0,1 ...99,9 min or 1...999 pulses  
(pump running time)  
Elapsed-hours counter . . . . . 0,1 ... 99999,9 h non-erasable  
Fault-hours counter . . . . . 0,1 ... 99999,9 h

#### Integral switched-mode power supply model KFAS10(-W)

##### Input

Input voltage . . . . . 85-264 V AC; 47-63 Hz  
Input current . . . . . 0.65 A/115 V; 0.4 A/230 V  
Starting current . . . . . 20 A/115 V; 40 A/230 V  
Fuse . . . . . 4 A/250 V

##### Output

Output voltage . . . . . 24 V DC ± 2%  
Leakge current . . . . . < 0.5 mA / 240 V AC  
Overload protection . . . . . yes  
Overvoltage protection . . . . . yes  
Safety VDE 085/11.93 / EN 60950 / IEC 950 / UL 1950  
Output . . . . . PELV (safety separation)  
Safety class . . . . . 1  
EMC . . . . . EN 50081-1/1 92  
(EN 55022/ 9 98 cl. B),  
EN 61000-3-3/1 95,  
EN 61000-6-2/4 99

#### Motor mode KFAS10

–25 °C to +40 °C . . . . . S1  
+40 °C to +60 °C . . . . . S2 – 15 minutes or  
S3 – 20% – 50 minutes

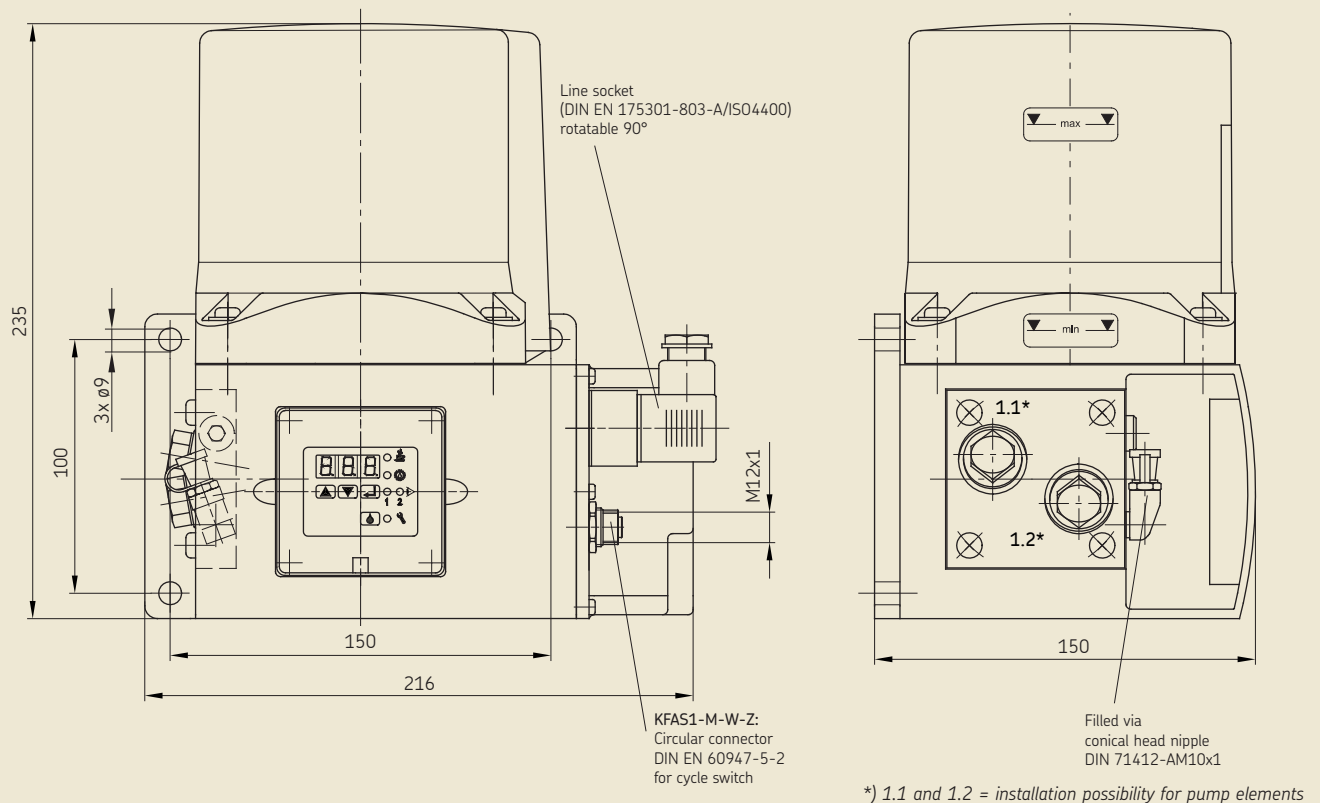
#### Lubricant level monitoring

If the level of lubricant drops beneath a critical value, its functions are stopped, a fault "FLL" displayed and a fault signal emitted at relay output X4-pin 4 (protected by 4 W fuses).

<sup>2)</sup> Please note:  
Only use grease that has been approved by Willy Vogel AG.

## Piston Pumps with Reservoir

### KFAS1-M, KFAS10+485 / KFAS1-M-W, KFAS10-W+485 (with mechanical lubricant level switch)



#### Notice:

The installation's ambient surroundings and cable connections have a decisive influence on the unit's electromagnetic compatibility. During the installation it is therefore necessary to assure the EMC of the entire system.

#### Applicable protection measures for operation:

- "Protective Extra Low Voltage" (PELV)  
Standards: IEC 60204-1; HD 384.4.41 (DIN VDE 0100-410)
- The unit has to be disconnected for insulation and voltage tests to EN 602041:1992.

Operating instructions for KFA and KFAS piston pumps:  
951-130-185-US

## Models KFG1-5(W2-M) / KFG3-5(W2-M)



Order No.	with lubricant level switch Order No.	Reservoir capacity [kg]
KFG1-5	KFG1-5W2-M	2
KFG3-5	KFG3-5W2-M	6

Please indicate in addition to the order No.:  
operating voltage, quantity and order No. of pump elements  
(max. 3) with pressure-limiting valve.

### Order example

KFG1-5W2-M, 24 V DC outfitted with pump element  
KFG1.U1 (outlet 1.1)  
KFG1.U2 (outlet 1.2)  
KFG1.U3 (outlet 1.3) and  
3 pressure-limiting valves 161-210-040

### Pump elements

Order No.	Delivery rate <sup>1)</sup> [ccm/min]	Connection thread
KFG1.U0	5	
KFG1.U1	2.5	
KFG1.U2	1.8	M14x1.5
KFG1.U3	1.3	
KFG1.U4	0.8	

<sup>1)</sup> The indicated delivery rates refer to the delivery of NLGI grade 2 grease at a temperature of +20 °C and a back pressure of 50 bars. Temperatures and pressures that deviate therefrom will change the delivery rate.  
Take the indicated values as a basis when configuring a centralized lubrication system.

Pressure-limiting valves cf. page 4.

### Technical data

#### Motor

Operating Voltage . . . . . 12 V DC / 24 V DC  
Fuse . . . . . 6 A / 4 A

#### Unit

Max. back pressure . . . . . 300 bars  
Perm. operating temperature . . . . . -25 °C to +75 °C  
Type of enclosure DIN EN 60529 . . . . . IP 55  
Reservoir capacity . . . . . 2 or 6 kg  
Reservoir material . . . . . PA6i  
Number of outlet ports . . . . . max. 3 (1.1, 1.2 and 1.3)  
*(If less than 3 outlet ports are needed, screw plugs are used  
in place of pump elements.)*

Lubricant <sup>2)</sup> . . . . . grease up to  
NLGI grades 000, 00, 0 and 1  
compatible with plastic,  
NBR elastomers,  
copper and copper alloys.  
Max. flow pressure 700 mbar

#### Lubricant level switch W2 (capacitive)

##### Function:

Switch opens when lubricant drops to critical level.  
Fault also signaled in the event of a wire break.  
Operating voltage . . . . . 10 to 30 V DC  
Switching frequency . . . . . 100 Hz  
Continuous current . . . . . ≤ 200 mA  
Natural current consumption . . . . . 6 to 12 mA  
Voltage drop . . . . . ≤ 1,8 at I<sub>continuous</sub>  
EC directives . . . . . EN 60947-5-2

##### <sup>2)</sup> Please note:

*Only use grease that has been approved by Willy Vogel AG.*

### Notice:

The installation's ambient surroundings and cable connections have a decisive influence on the unit's electromagnetic compatibility. During the installation it is therefore necessary to assure the EMC of the entire system.

### Applicable protection measures for operation:

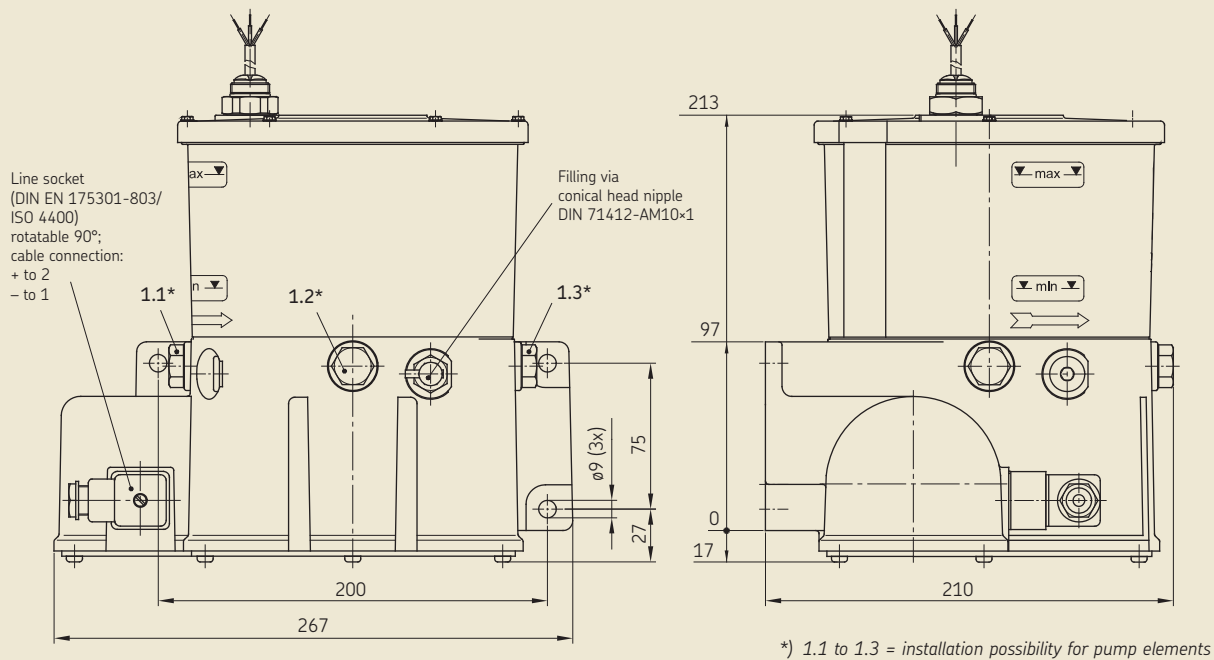
- "Protective Extra Low Voltage" (PELV)  
Standards: IEC 60204-1; HD 384.4.41 (DIN VDE 0100-410)
- The unit has to be disconnected for insulation and voltage tests to EN 602041:1992.

Operating instructions for KFG and KFGS piston pumps:  
951-130-184-US

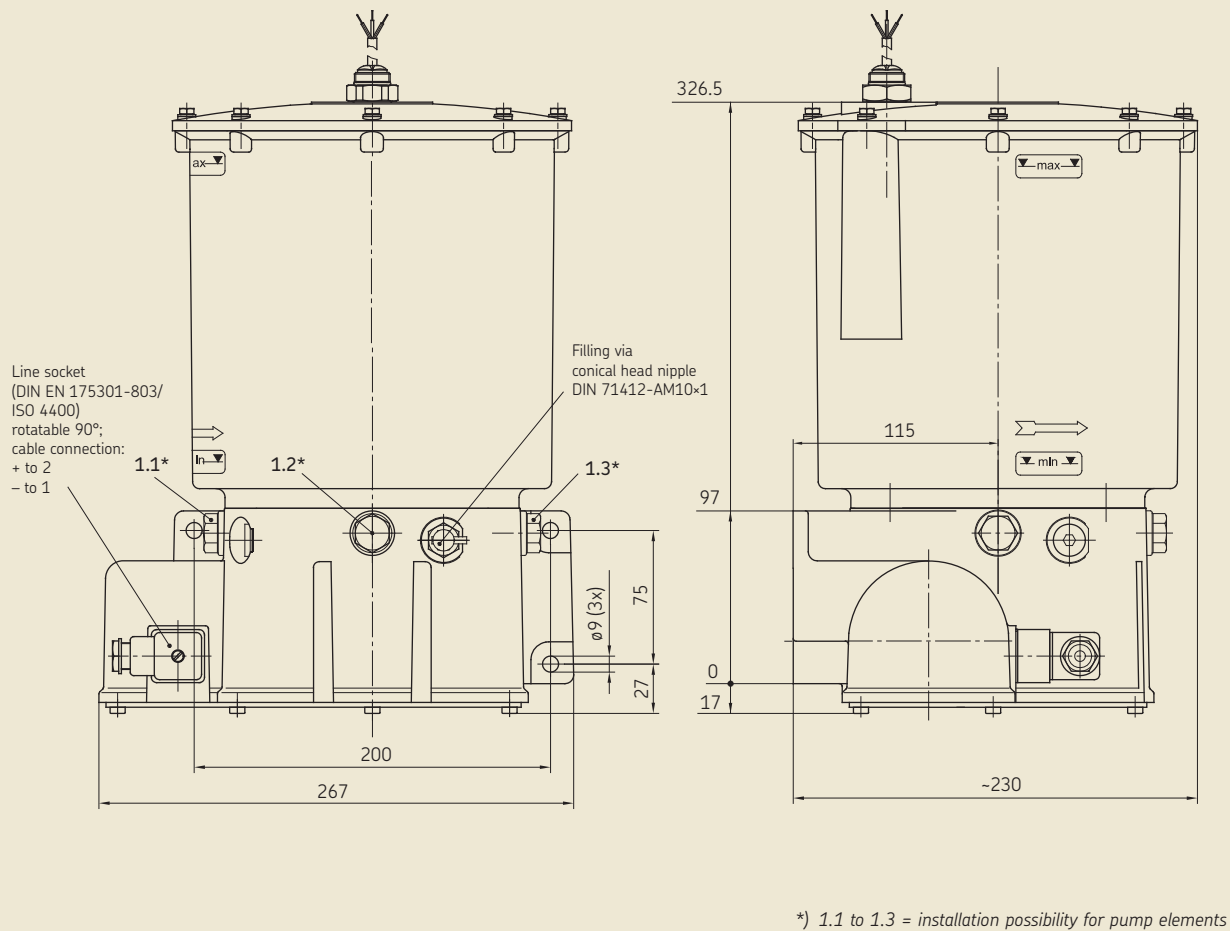


## Piston Pumps with Reservoir

### KFG1-5 / KFG1-5W2-M (with capacitive lubricant level switch)



### KFG3-5 / KFG3-5W2-M (with capacitive lubricant level switch)



## Models KFG1-5W1-M / KFG3-5W1-M

KFG1-5W1-M



with lubricant level switch Order No	Reservoir capacity [kg]
KFG1-5W1-M	2
KFG3-5W1-M	6

Please indicate in addition to order No.:  
operating voltage, quantity and order No. of pump elements  
(max. 3) with pressure limiting valve.

### Order example

KFG1-5W1-M, 24 V DC outfitted with pump element  
KFG1.U1 (outlet 1.1)  
KFG1.U2 (outlet 1.2)  
KFG1.U3 (Abgang 1.3) and  
3 pressure-limiting valves 161-210-040

**Pump elements** cf. page 8.

**Pressure-limiting valves** cf. page 4.

Operating instructions for KFG and KFGS piston pumps:  
951-130-184-US

### Technical data

#### Motor

Operating voltage . . . . . 12 V DC / 24 V DC  
Fuse . . . . . 6 A / 4 A

#### Unit

Max. back pressure . . . . . 300 bars  
Perm. operating temperature . . . . . -25 °C to +75 °C  
Type of enclosure DIN EN 60529 . . . . . IP 55  
Reservoir capacity . . . . . 2 or 6 kg  
Reservoir material . . . . . PA6i  
Number of outlet ports . . . . . max. 3 (1.1, 1.2 and 1.3)  
*(If less than 3 outlet ports are needed, screw plugs are used  
in place of pump elements.)*

Lubricant <sup>2)</sup> . . . . . grease up to NLGI grade 2  
compatible with plastic,  
NBR elastomers,  
copper and copper alloys.  
Max. flow pressure 700 mbar

#### Lubricant level switch W1 (reed switch)

Mechanical type, by off circuit reed switch  
Type . . . . . changeover  
Max. switching power . . . . . 20 W / 20 VA  
Max. switching voltage . . . . . 100 V

<sup>2)</sup> *Please note:  
Only use grease that has been approved by Willy Vogel AG.*

### Notice:

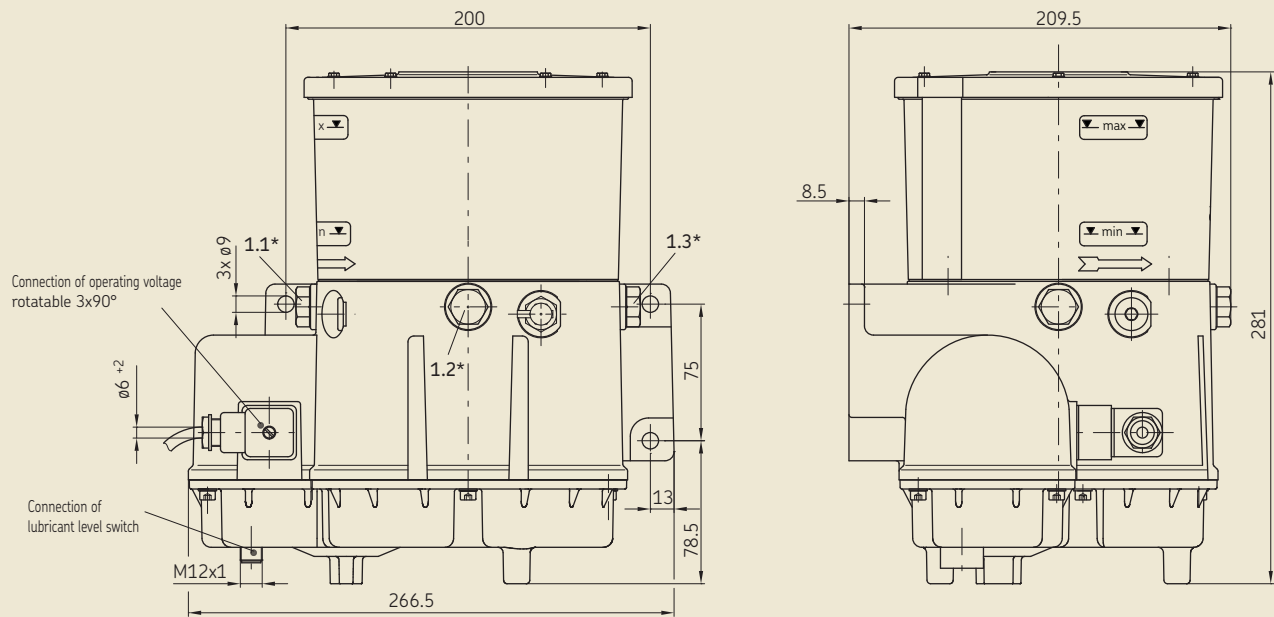
The installation's ambient surroundings and cable connections have a decisive influence on the unit's electromagnetic compatibility. During the installation it is therefore necessary to assure the EMC of the entire system.

### Applicable protection measures for operation:

- "Protective Extra Low Voltage" (PELV)  
Standards: IEC 60204-1; HD 384.4.41 (DIN VDE 0100-410)
- The unit has to be disconnected for insulation and voltage tests to EN 602041:1992.

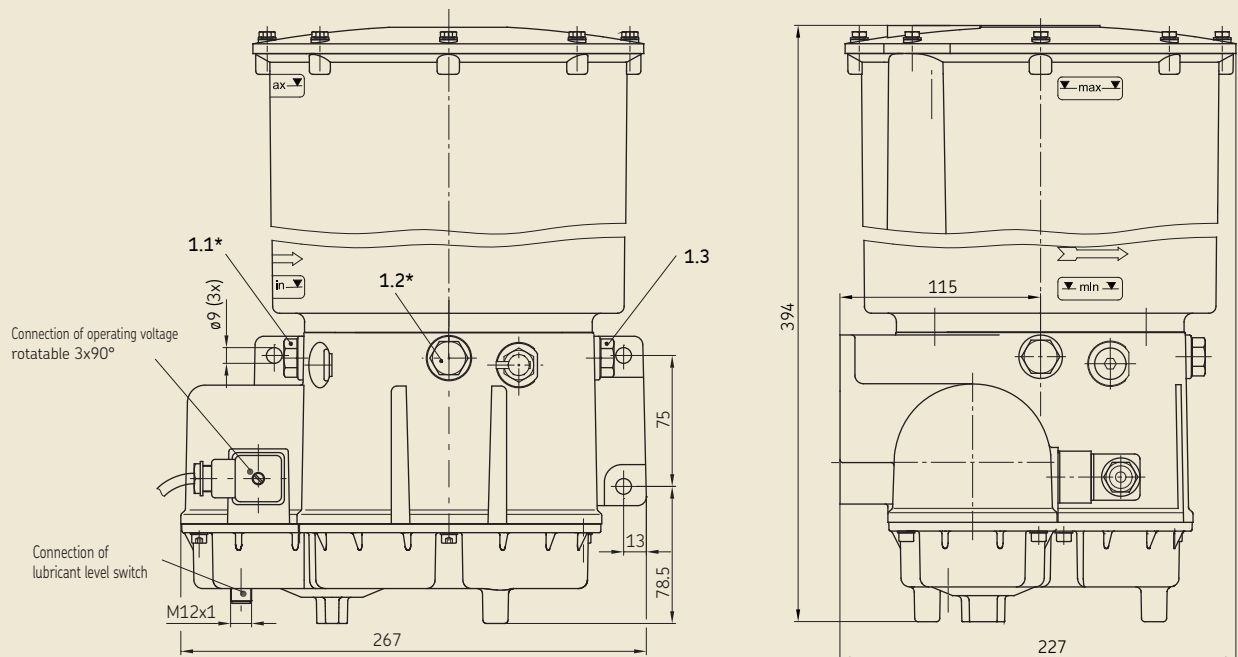
## Piston Pumps with Reservoir

### KFG1-5W1-M (with mechanical lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements

### KFG3-5W1-M (with mechanical lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements

## Models KFG10-5(W2) / KFG30-5(W2) with integral power pack

KFG10-5W2



Order No	with lubricant level switch Order No.	Reservoir capacity [kg]
KFG10-5	KFG10-5W2	2
KFG30-5	KFG30-5W2	6

Please indicate in addition to order No.:  
operating voltage, quantity and order No. of pump elements  
(max. 3) with pressure limiting valve.

### Order example

KFG10-5W2 outfitted with pump element  
KFG1.U1 (outlet 1.1)  
KFG1.U2 (outlet 1.2)  
KFG1.U3 (outlet 1.3) and  
3 pressure-limiting valves 161-210-042

Pump elements cf. page 8.

Pressure-limiting valves cf. page 4.

Operating instructions for KFG and KFGS piston pumps:  
951-130-184-US

### Technical data

#### Motor

Operating voltage . . . . . cf. switched-mode power supply  
Fuse . . . . . 6 A / 4 A

#### Unit

Max. back pressure . . . . . 300 bars  
Perm. operating temperature . . . . . -25 °C to +75 °C  
Type of enclosure DIN EN 60529 . . . . . IP 55  
Reservoir capacity . . . . . 2 or 6 kg  
Reservoir material . . . . . PA6i  
Number of outlet ports . . . . . max. 3 (1.1, 1.2 and 1.3)  
*(If less than 3 outlet ports are needed, screw plugs are used  
in place of pump elements.)*

Lubricant <sup>2)</sup> . . . . . grease up to  
NLGI grades 000, 00, 0 and 1  
compatible with plastic,  
NBR elastomers,  
copper and copper alloys.  
Max. flow pressure 700 mbar

#### Integral switched-mode power supply

##### Input

Input voltage . . . . . 90-264 V AC; 47-440 Hz  
Input current . . . . . 1.5 A/115 V; 0.9 A/230 V  
Strating current . . . . . 40 A/115 V; 20 A/230 V  
Fuse . . . . . 4 A/250 V

##### Output

Output voltage . . . . . 24 V DC ± 2%  
Leakge current . . . . . < 0.5 mA / 240 V AC  
Overload protection . . . . . yes  
Überspannungsschutz . . . . . yes  
Safety VDE 085/11.93 / EN 60950 / IEC 950 / UL 1950  
Output . . . . . PELV (safety separation)  
Safety class . . . . . 1  
EMC . . . . . EN 55022 cl. B,  
IEC 1000-4-2, 3, 4, 5  
IEC 1000-4-2, 3

##### Motor mode

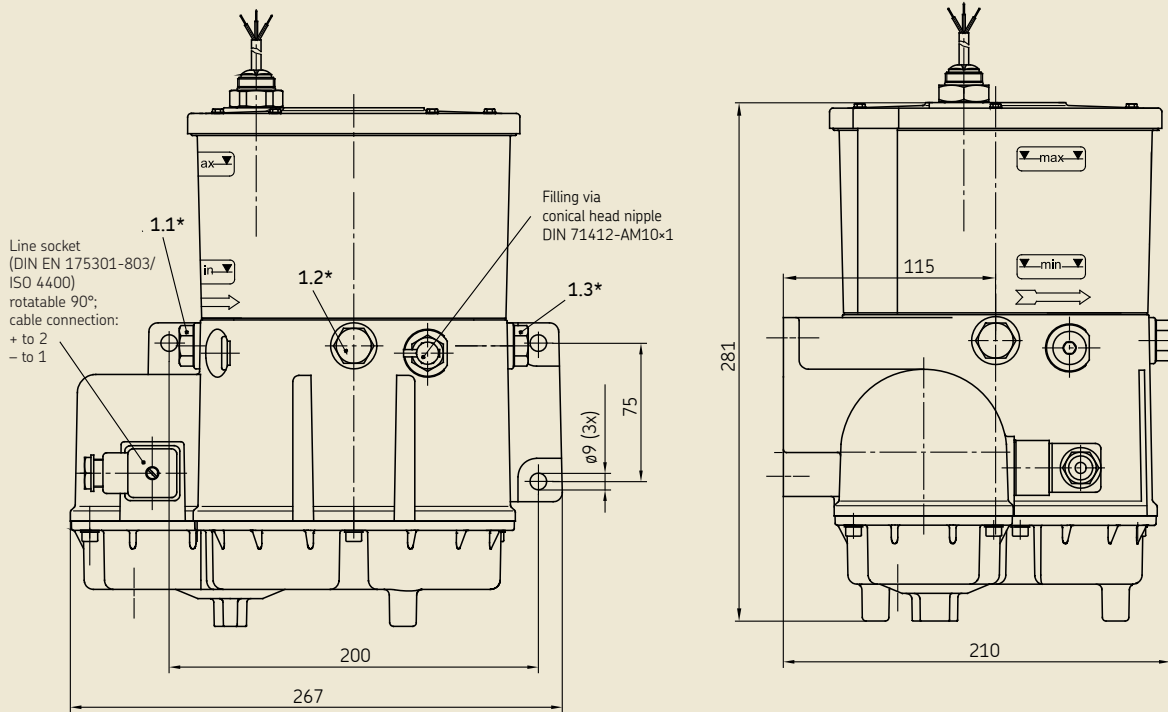
-25 °C to +40 °C . . . . . S1  
+40 °C to +60 °C . . . . . S2 – 15 minutes or  
S3 – 20% – 30 minutes

### Notice:

The installation's ambient surroundings and cable connections have a decisive influence on the unit's electromagnetic compatibility. During the installation it is therefore necessary to assure the EMC of the entire system.

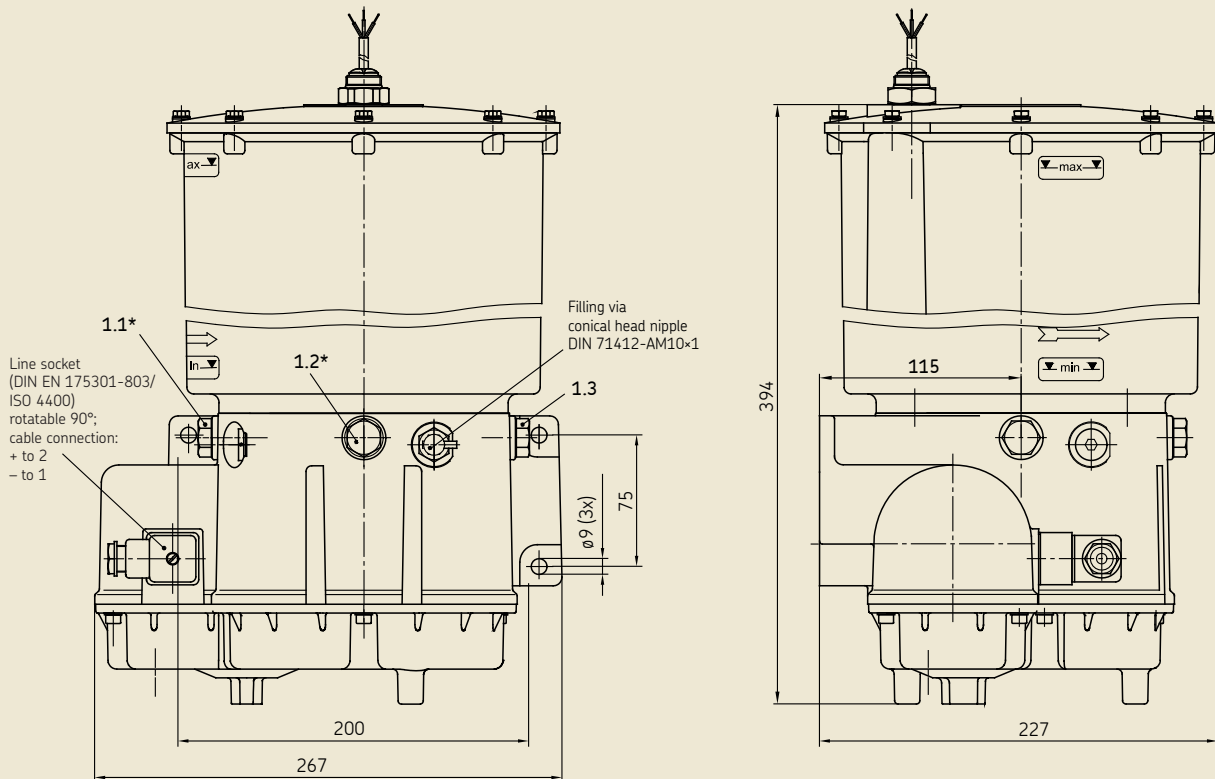
## Piston Pumps with Reservoir

### KFG10-5 / KFG10-5W2 (with capacitive lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements

### KFG30-5 / KFG30-5W2 (with capacitive lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements

## Models KFGS1-5(W2-M) / KFGS3-5(W2-M) with integral control unit

KFGS1-5



Order No.	with lubricant level switch Order No.	Reservoir capacity [kg]
KFGS1-5	KFGS1-5W2-M	2
KFGS3-5	KFGS3-5W2-M	6

Please indicate in addition to order No.:  
operating voltage, quantity and order No. of pump elements  
(max. 3) with pressure limiting valve.

### Order example

KFGS1-5W2-M, 24 V DC outfitted with pump element  
KFG1.U1 (outlet 1.1)  
KFG1.U2 (outlet 1.2)  
KFG1.U3 (outlet 1.3) and  
3 pressure-limiting valves 161-210-040

Pump elements cf. page 8.

Pressure-limiting valves cf. page 4.

### Cable harness, order No. 997-000-630

not included in scope of delivery and has to be ordered separately.

Operating instructions for KFG and KFGS piston pumps:  
951-130-184-US

### Technical data

#### Motor

Operating voltage . . . . . 12 V DC / 24 V DC  
Fuse . . . . . 6 A / 4 A

#### Unit

Max. back pressure . . . . . 300 bars  
Perm. operating temperature . . . . . -25 °C to +75 °C  
Type of enclosure DIN EN 60529 . . . . . IP 55  
Reservoir capacity . . . . . 2 or 6 kg  
Reservoir material . . . . . PA6i  
Anzahl der Auslässe. . . . . max. 3 (1.1, 1.2 and 1.3)  
*(If less than 3 outlet ports are needed, screw plugs are used  
in place of pump elements.)*

Lubricant <sup>2)</sup> . . . . . grease up to  
NLGI grades 000, 00, 0 and 1  
compatible with plastics,  
NBR elastomers,  
copper and copper alloys.  
Max. flow pressure 700 mbar

#### Integral control unit

##### Mode of operation and parameters

Interval time, adjustable . . . . . 0,1 ... 99,9 h  
Contact time, adjustable . . . . . 0,1 ... 99,9 min or 1 ... 999 pulse  
(pump running time)

Elapsed time counter . . . . . 0,1 ... 99999,9 h not erasable  
Error hour counter . . . . . 0,1 ... 99999,9 h

Monitoring, adjustable  
with cycle switch (CS) or without monitoring (OFF)

Basic setting factory made: timer  
Pump running time . . . . . tCO = 4 min  
Interval time . . . . . tPA = 1 h  
Monitoring . . . . . COP = OFF

### Notice:

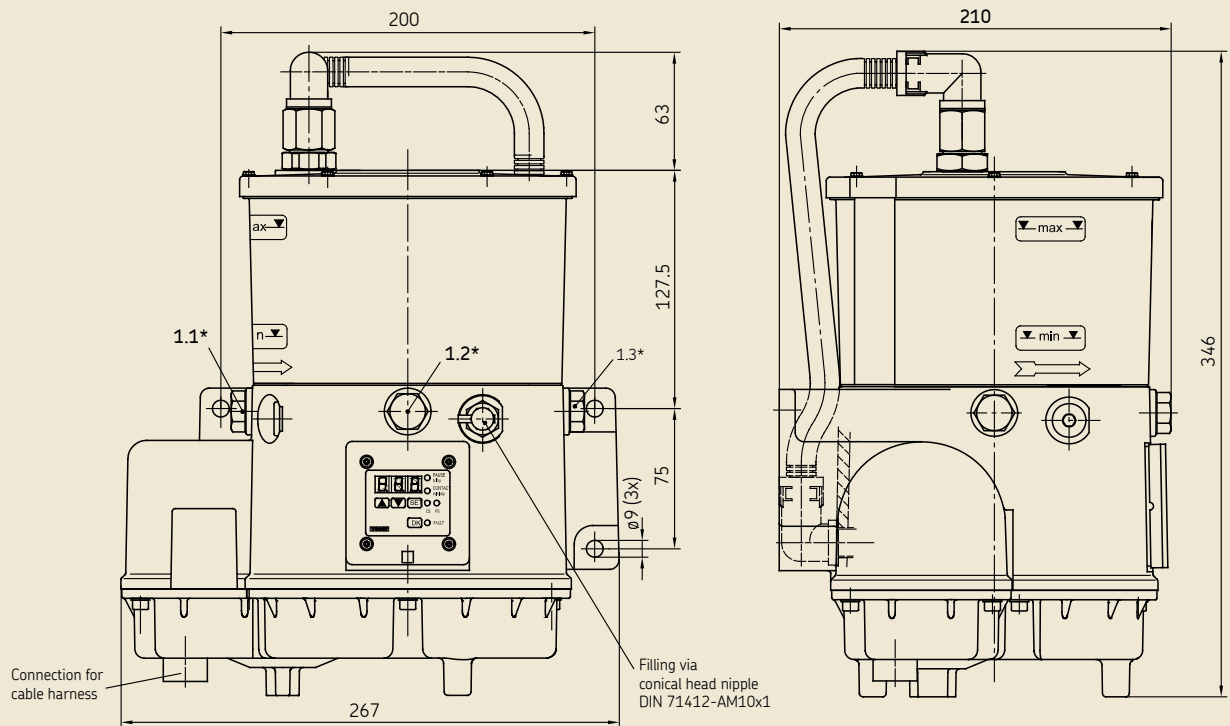
The installation's ambient surroundings and cable connections have a decisive influence on the unit's electromagnetic compatibility. During the installation it is therefore necessary to assure the EMC of the entire system.

### Applicable protection measures for operation:

- "Protective Extra Low Voltage" (PELV)  
Standards: IEC 60204-1; HD 384.4.41 (DIN VDE 0100-410)
- The unit has to be disconnected for insulation and voltage tests to EN 602041:1992.

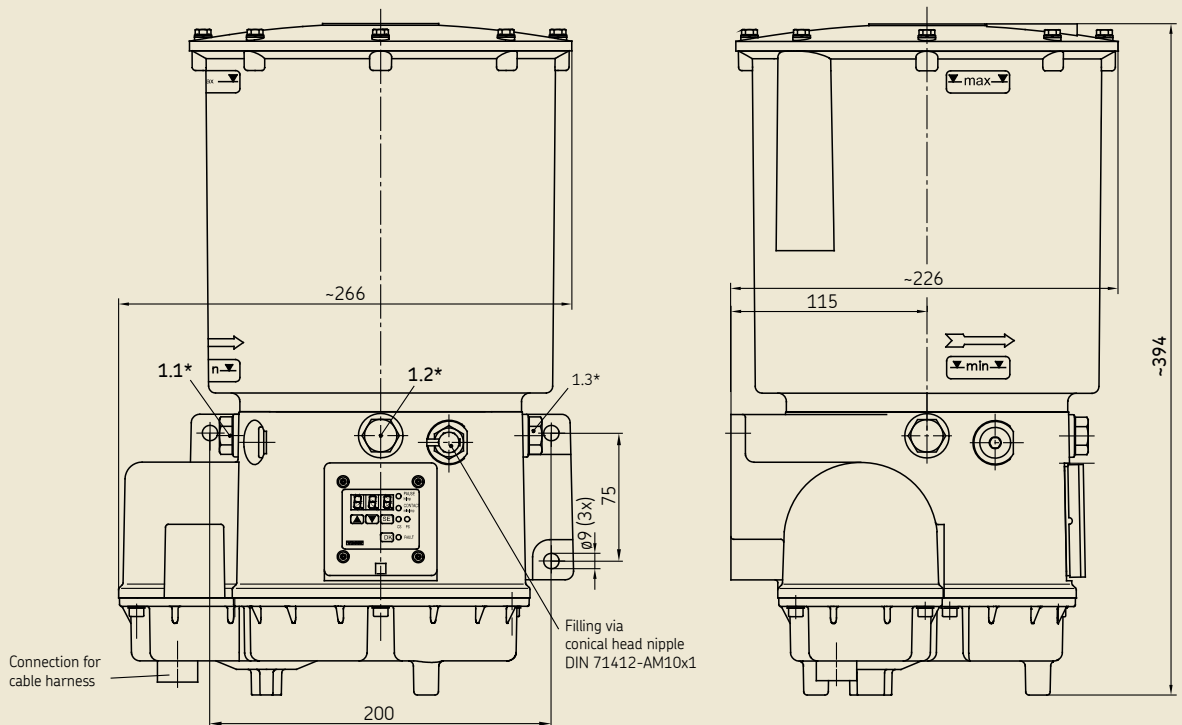
## Piston Pumps with Reservoir

### KFGS1-5 / KFGS1-5W2 (with capacitive lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements

### KFGS3-5 / KFGS3-5W2 (with capacitive lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements

## Models KFGS10-5(W1) / KFGS30-5(W1) with integral control unit and power pack

KFGS10-5



Order No.	with lubricant level switch Order No.	Reservoir capacity [kg]
KFGS10-5	KFGS10-5W1	2
KFGS30-5	KFGS30-5W1	6

Please indicate in addition to order No.:  
operating voltage, quantity and order No. of pump elements  
(max. 3) with pressure limiting valve.

### Order example

KFGS10-5W1 outfitted with pump element  
KFG1.U1 (outlet 1.1)  
KFG1.U2 (outlet 1.2)  
KFG1.U3 (outlet 1.3) and  
3 pressure-limiting valves 161-210-042

Pump elements cf. page 8.

Pressure-limiting valves cf. page 4.

Operating instructions for KFG and KFGS piston pumps:  
951-130-184-US

### Technical data

#### Motor

Operating voltage . . . . . cf. switched-mode power supply  
Fuse . . . . . 6 A / 4 A

#### Unit

Max. back pressure . . . . . 300 bars  
Perm. operating temperature . . . . . -25 °C to +60 °C  
Type of enclosure DIN EN 60529 . . . . . IP 55  
Reservoir capacity . . . . . 2 or 6 kg  
Reservoir material . . . . . PA6i  
Number of outlets . . . . . max. 3 (1.1, 1.2 and 1.3)  
*(If less than 3 outlet ports are needed, screw plugs are used  
in place of pump elements.)*

Lubricant <sup>2)</sup> . . . . . grease up to NLGI grade 2  
compatible with plastic,  
NBR elastomers,  
copper and copper alloys.  
Max. flow pressure 700 mbar

#### Lubricant level monitoring W1

Type . . . . . reed contact  
Function: The unit switches off when the critical lubricant level is  
reached, a fault is shown on the display (FLL).

#### Integral control unit

##### Mode of operation and parameters

Interval, adjustable . . . . . 0.1 ... 99.9 h  
Contact, adjustable . . . . . 0.1 ... 99.9 min or 1 ... 999 pulses  
(pump running time)

Elapsed-hours counter . . . . . 0.1 ... 99999.9 h not erasable  
Fault-hours counter . . . . . 0.1 ... 99999.9 h

Monitoring, adjustable  
with cycle switch (CS) or without monitoring (OFF)

##### Basic factory setting: timer mode

Pump running time . . . . . tCO = 4 min  
Interval time . . . . . tPA = 1 h  
Monitoring . . . . . COP = OFF

Integral switched-mode power supply – cf. page 12

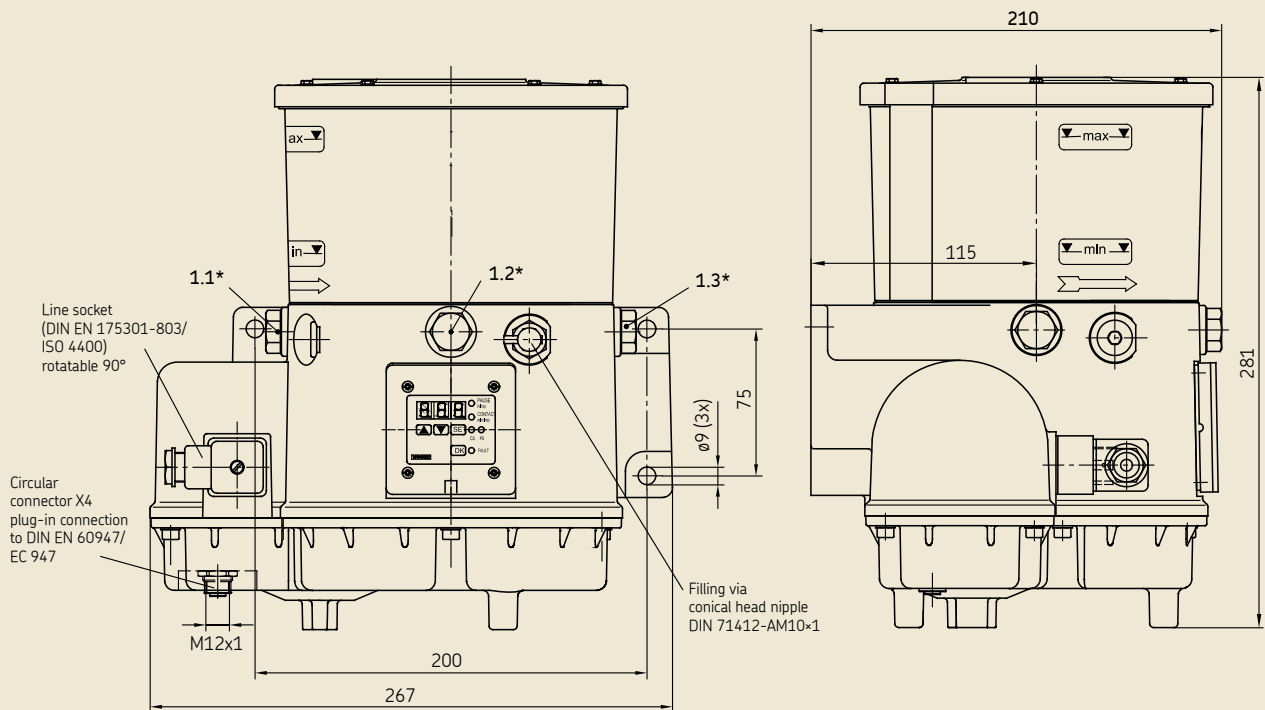
### Notice:

The installation's ambient surroundings and cable connections have a  
decisive influence on the unit's electromagnetic compatibility.  
During the installation it is therefore necessary to assure the EMC  
of the entire system.



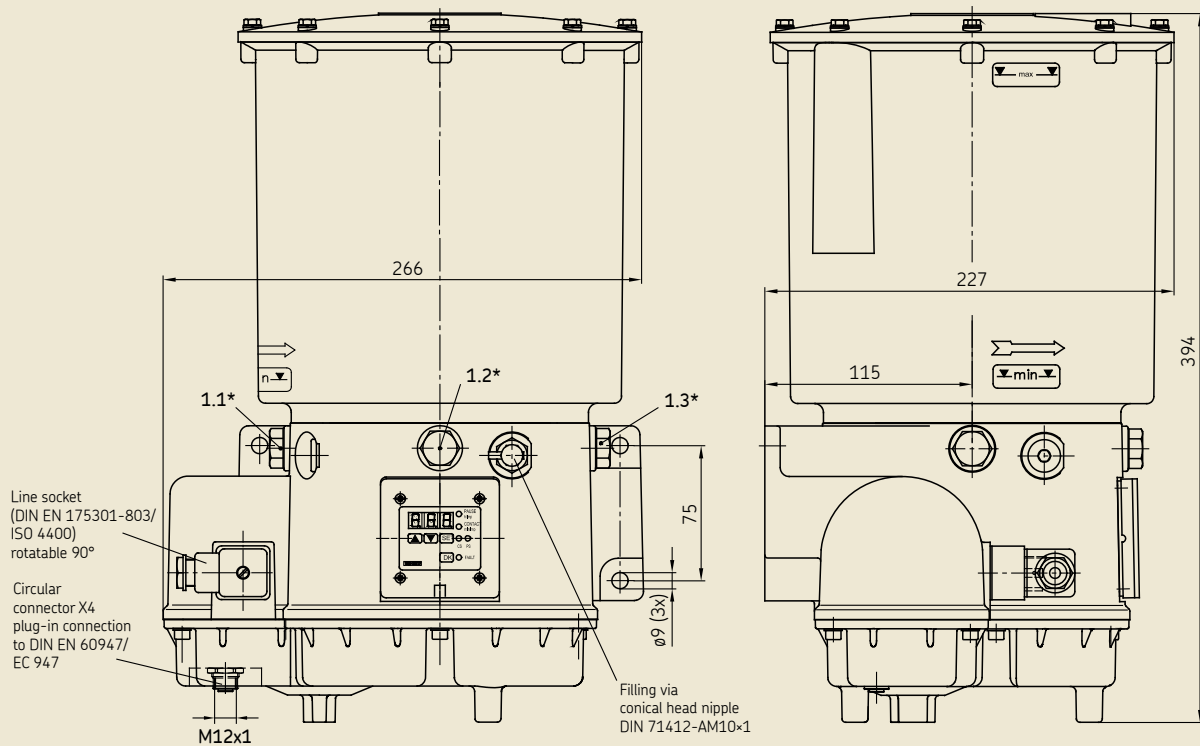
## Piston Pumps with Reservoir

### KFGS10-5 / KFGS10-5W1 (with mechanical lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements

### KFGS30-5 / KFGS30-5W1 (with lubricant level switch)



\*) 1.1 to 1.3 = installation possibility for pump elements



**Order No. 1-0107-2-US**

Subject to change without notice! (09/2008)

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In particular, we call your attention to the fact that hazardous materials of any kind, especially the materials classified as hazardous by EC Directive 67/548/EEC, Article 2, Par. 2, may only be filled into VOGEL centralized lubrication systems and components and delivered and/or distributed with the same after consultation with and written approval from VOGEL.

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**Leaflet information**

- 1-0107-1-US Progressive feeders
- 1-0107-4-US Grease pump units (Type PF, PFP, PFH)
- 1-4002-1-US Motor drive pump unit GSJB
- DSK2-008-00-US Grease-lubricating pump FF
- DSK2-005-00-US Grease-lubricating pump FB
- 1-0107-5-US Piston pumps (Type PPU, PHU)
- 1-0107-6-US Accessories for progressive systems

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**Willy Vogel Aktiengesellschaft**

SKF Lubrication Solutions  
Motzener Strasse 35/37 · 12277 Berlin · Germany  
PF 970444 · 12704 Berlin · Germany  
Tel. +49 (0)30 72002-0 · Fax +49 (0)30 72002-111  
info@vogel.skf.com · www.vogelag.com

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