



SOLENOID VALVES

intrinsically safe

II 2 G Ex ia IIC T4 or T6 / IIB T4 or T6 IP65
ISO 15218 (CNOMO, size 30) interface
direct operated, pad mounting body

NC



3/2
Series
195

ATEX

(ISSC prefix)

FEATURES

- Low consumption valves for use in potentially explosive atmospheres according to ATEX-Directive 94/9/EC
EC type examination certificate: **LCIE 08 ATEX 6083**
- Compliance with the Essential Health and Safety Requirements of the ATEX-Directive has been assured by compliance with European Standards EN 60079-0 and EN 60079-11
- The valve's Ex ia protection allows it to be installed in explosive atmospheres up to zone 1. It can be used in the chemical, oil and pharmaceutical industries, or in processing and packaging plants for flammable products (paints, solvents)
- Compact, monobloc pilot valve with spade plug connection according to ISO 4400 / EN 175301-803, form A (3 pins)

GENERAL

Differential pressure 0 - 8 bar [1 bar = 100 kPa]
Pneumatic base ISO 15218 (CNOMO E06.05.80N, size 30)
Response time 20 ms

| fluids (*) | temperature range (TS) | seal materials (*) |
|---|------------------------|-----------------------|
| air or inert gas dry, filtered (50 µm), without condensate, dew point: -20°C | - 40°C to + 70°C | FPM (fluoroelastomer) |

MATERIALS IN CONTACT WITH FLUID

(*) Ensure that the compatibility of the fluids in contact with the materials is verified

Body PA
Internal parts, core tube Stainless steel
Seals FPM
Subbase PA or zamak

OTHER MATERIALS

Coil Thermoplastic resin

ELECTRICAL CHARACTERISTICS

Coil insulation class F **SAFETY CODE** Ex II 2 G Ex ia IIC T4 / IIB T4 or II 2 G Ex ia IIC T6 / IIB T6

Connector Spade plug (cable Ø 6-8 mm)
Connector specification ISO 4400 / EN 175301-803, form A
Electrical safety IEC 335
Electrical enclosure protection Moulded IP65 (EN 60529)
Standard voltages DC (=) : 24V 10%+10%

| voltage (U _n) (max. ripple 10%) | power ratings (P _n) hot/cold = | typical functional ratings | | | R | | | operator ambient temperature range (TS) (°C) ⁽¹⁾ | type ⁽³⁾ |
|--|---|----------------------------|---------------------------|--------------------------------|------|------------|------------|--|---------------------|
| | | I _(ON) min. | U _(ON) min. | U _(OFF) turn off | 20°C | max. T6 | max. T4 | | |
| (V) | (W) | (mA) | (V) | (V) | (Ω) | (Ω) | (Ω) | (°C) ⁽¹⁾ | |
| Low power (LP) | | | | | | | | | |
| 24 | 0,5 | 37 | 12 | 1 | 275 | 345 | 385 | -40 to +85 | 01 |

| safety code | power level (P _n) (W) | safety parameters | | | | |
|---------------------|---|---------------------------------|------------------------|-----------------------|-----------------------|------------------------|
| | | U _i = (DC) (V) | I _i (mA) | P _i (W) | L _i (H) | C _i (µF) |
| II 2 G Ex ia IIC T4 | 0,5 | 28 | 115 | 1,6 | 0 | 0 |
| II 2 G Ex ia IIB T4 | 0,5 | 32 | 195 | 1,6 | 0 | 0 |
| II 2 G Ex ia IIC T6 | 0,5 | 28 | 115 | 1,6 | 0 | 0 |
| II 2 G Ex ia IIB T6 | 0,5 | 32 | 195 | 1,6 | 0 | 0 |

TEMPERATURE CLASSIFICATION TABLES DC (=)

| Pi (watt) | maximum ambient °C ⁽¹⁾ | | |
|---|-----------------------------------|-------------|-------------|
| | surface temperature | | |
| | T6 85°C | T5 100°C | T4 135°C |
| Insulation class F (155°C) 100% E.D. ⁽²⁾ | | | |
| 1,6 | 50 | - | 85 |

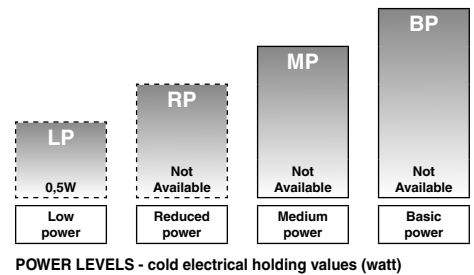
⁽¹⁾ The minimum allowable ambient temperature is -40°C

⁽²⁾ This intrinsically safe valve must be connected to a specific, approved power supply (safety barrier or interface) located in a safe area. See list of safety barriers/interfaces on page 2.

⁽³⁾ Refer to the dimensional drawings on the following page.

SPECIFICATIONS

| pipe size | orifice size | | flow coefficient Kv | | | | operating pressure differential (bar) | | power level (W) | surface temperature | catalogue number | |
|-----------------------------|--------------|-------|---------------------|---------|-------|----------------------|---------------------------------------|--|-----------------|---------------------|------------------|----------|
| | 1 → 2 | 2 → 3 | 1 → 2 | 2 → 3 | min. | max. (PS) air (*) | without manual operator | with impulse /maintained manual operator | | | | |
| | (mm) | (mm) | (m³/h) | (l/min) | | | | | | | (m³/h) | (l/min) |
| NC - Normally closed | | | | | | | | | | | | |
| pad mounting | 0,8 | 1 | 0,019 | 0,31 | 0,034 | 0,57 | 0 | 8 | 0,5 | T4 | 19500032 | 19500031 |
| | | | | | | | | | | T6 | 19500035 | 19500034 |



POWER LEVELS - cold electrical holding values (watt)

Example of use with a Zener barrier installed in a non-hazardous zone:
safe area (RS interface) cable explosive area



SUBBASES

| pipe size | designation | safety code | catalogue number |
|---------------------------------|---|-------------------------------|------------------|
| 6/6 polyamide subbases | | | |
| instant fittings ⁽¹⁾ | single subbase (instant fittings OD 4 mm) | II 2 GD c Ta 50°C T 85°C (T6) | 35300069 |
| Zamak subbases | | | |
| G 1/8 ⁽¹⁾ , tapped | laterally-connected single subbase | II 2 GD c Ta 50°C T 85°C (T6) | 35300047 |

⁽¹⁾ These subbases can be mounted on omega rail to EN 50022 using 2 clips (clips sold in packs of 10, catalogue number: **33400036**).

OPTIONS

- Joinable subbases

INSTALLATION

- The solenoid valves can be mounted in any position without affecting operation
- Solenoid valve supplied with mounting screws
- Pipe connections G 1/8 have standard thread according to ISO 228/1
- Electrical connection between solenoid valve and barrier/interface with cable type A or B according to EN 50039
- Installation/maintenance instructions are included with each valve

RECOMMENDED INTERFACES

Located in safe areas, these interfaces allow to feed the intrinsically safe solenoid valves located in explosive areas. This equipment must be ordered from its respective manufacturers, specifying that they are intended to feed intrinsically safe solenoid valves 19500031/19500032/19500034/19500035, II 2 G Ex ia IIC T4 / II 2 G Ex ia IIB T4 - II 2 G Ex ia IIC T6 / II 2 G Ex ia IIB T6.

| INTERFACES | | |
|-----------------|----------------|------------|
| manufacturer | module type | 195 - 24 V |
| Pepperl + Fuchs | KFD2-SL2-Ex2 | x |
| | KFD2-SD-Ex1.36 | x |

In accordance with the zone classification and the national legislation of each country, apply the certification procedures for the connection of IS-rated products with associated equipment. All information subject to change without notice. All responsibility for the use of products from other suppliers and the possible modifications of their characteristics is disclaimed.

ORDERING EXAMPLES:

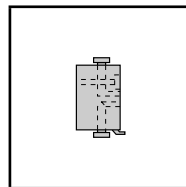
| | | |
|--------------|---|----------|
| 19500031 | . | 24V / DC |
| 19500032 | . | 24V / DC |
| basic number | | voltage |

DIMENSIONS (mm), WEIGHT (kg)



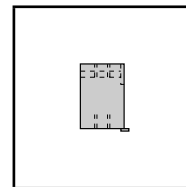
TYPE 01:
Low power
II 2 G Ex ia IIC T4 / IIB T4
IP65
II 2 G Ex ia IIC T6 / IIB T6
IP65

19500031 / 19500032 /
19500034 / 19500035



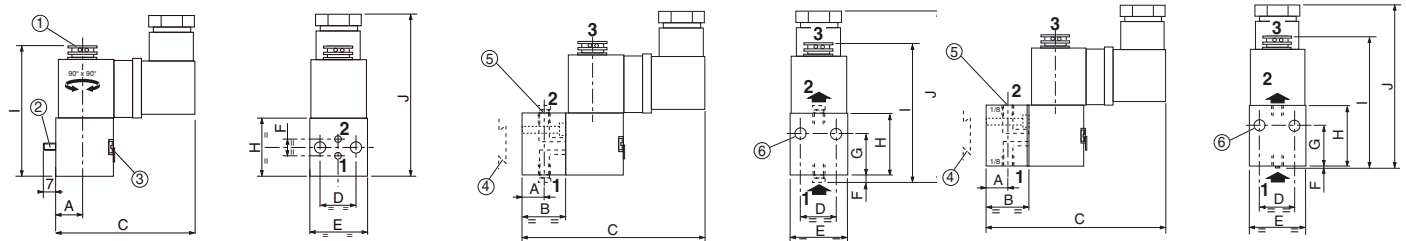
TYPE 02:
Single instant fitting
subbase
Polyamide

35300069



TYPE 03:
Single subbase
Zamak

35300047



| type | catalogue number | A | B | C | D | E | F | G | H | I | J | weight ⁽²⁾ |
|------|--|------|----|----|----|----|-----|------|----|----|----|-----------------------|
| 01 | 19500031 / 19500032 19500034 / 19500035 | 15,5 | - | 67 | 21 | 30 | 7,5 | 15 | 30 | 68 | 82 | 0,185 |
| 02 | 35300069 | 13 | 20 | 87 | 23 | 33 | 4 | 22,5 | 30 | 72 | 87 | 0,200 |
| 03 | 35300047 | 15 | 25 | 92 | 21 | 31 | 3,5 | 30 | 36 | 75 | 90 | 0,200 |

⁽²⁾ Incl. coil(s) and connector(s).

- ① Port 3 with built-in exhaust protector (contact us for a connectable Ø M5 port with depth of 5 mm)
- ② Mounting: two CM 4 x 35 screws
- ③ Manual operator location
- ④ Adaptable clips
- ⑤ Instant-fitting connection for OD 4 mm tube
- ⑥ Two dia. 3,5 mm securing holes