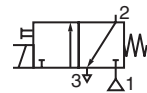




# SOLENOID VALVES

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

NC



3/2

Series

195

(ISSC prefix)

## FEATURES

- Low power 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, 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 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 <sup>10%+10%</sup>

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

safety code	power level (P <sub>n</sub> ) (W)	safety parameters				
		U <sub>i</sub> = (DC) (V)	I <sub>i</sub> (mA)	P <sub>i</sub> (W)	L <sub>i</sub> (H)	C <sub>i</sub> (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 <sup>(1)</sup>		
	surface temperature		
	T6 85°C	T5 100°C	T4 135°C
Insulation class F (155°C) 100% E.D. <sup>(2)</sup>			
1,6	50	-	85

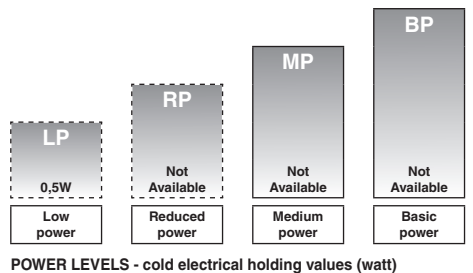
<sup>(1)</sup> The minimum allowable ambient temperature is -40°C

<sup>(2)</sup> 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.

<sup>(3)</sup> Refer to the dimensional drawings on the following page.

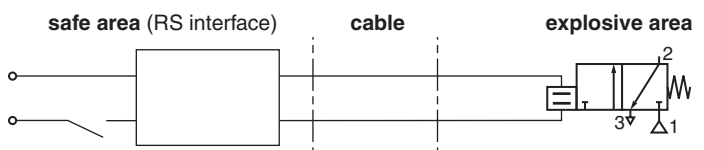
## SPECIFICATIONS

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



POWER LEVELS - cold electrical holding values (watt)

Example of use with a Zener barrier installed in a non-hazardous zone:



### SUBBASES

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

<sup>(1)</sup> 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:

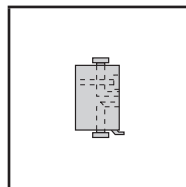
19500031	.	24V / DC
19500032	.	24V / DC
basic number		voltage

### DIMENSIONS (mm), WEIGHT (kg)



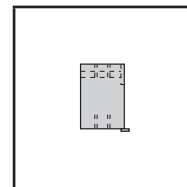
**TYPE 01:**  
**Low power**  
 II 2 G Ex ia IIC T4 / IIB T4  
 IP65  
 II 2 G Ex ia IIC T6 / IIB T6  
 IP65

19500031 / 19500032 /  
 19500034 / 19500035



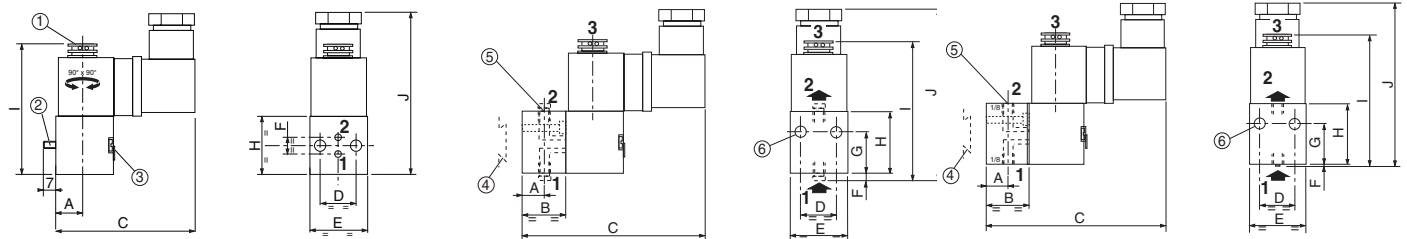
**TYPE 02:**  
 Single instant fitting  
 subbase  
 Polyamide

35300069



**TYPE 03:**  
 Single subbase  
 Zamak

35300047



type	catalogue number	A	B	C	D	E	F	G	H	I	J	weight <sup>(2)</sup>
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

<sup>(2)</sup> 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