

series DM

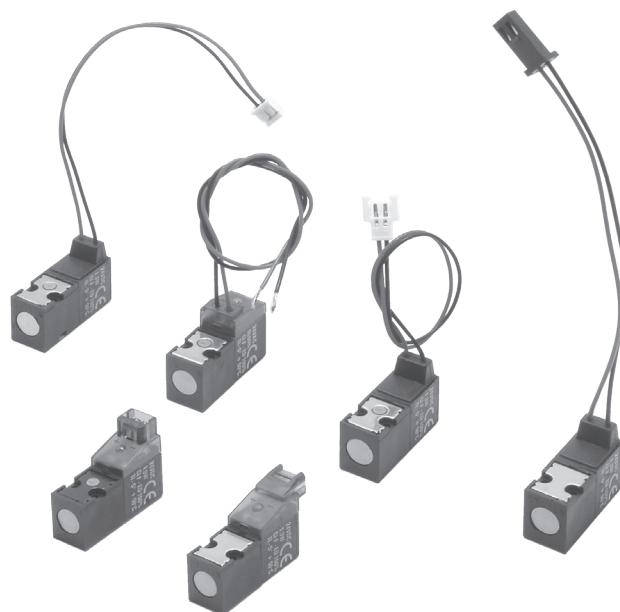
Direct acting solenoid valves 10 mm

DESCRIPTION

The direct acting solenoid valves series "DM" are produced in the 3/2 N.C. pneumatic function with the interface to ISO 15218 and in the 3/2 N.O. - 3/2 N.C. and 2/2 N.C. pneumatic functions with not standardized interface. These valves can be used with all the fluids that can match the constructive materials. The versions with nominal diameter of 1.1 mm are equipped with "CRP" (Power Reduction Circuit, see below). They can comply with ATEX directive, 3GD category, upon request.

TECHNICAL DATA

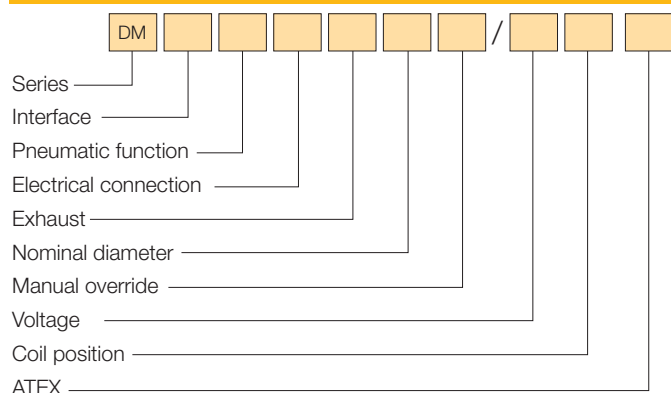
Nominal diameter	0,7 mm (standard coil)	1,1 mm (coil with "CRP")
Flow rate 1-2 at 6 bar $\Delta p=1$	14 NI/min	24 NI/min
Flow rate 2-3 at 6 bar $\Delta p=1$	22 NI/min	30 NI/min
Interface	to ISO 15218 or not standardized	
Operating pressure	0 ÷ 7 bar	
Working temperature	-5 ÷ +50 °C	
Fluid	Compressed air, filtered, continuous lubricated, unlubricated or dry lubricated	
Max. operating frequency	≤40 Hz	
Coil	Adjustable	
Voltages	DC: 6 - 12 - 24 V AC: 24 V	DC: 12 - 24 V
Power consumption	DC: 1.3 W	DC: 3.5 W - 0.9 W
Voltage tolerance	-5 ÷ +10%	
Protection class	IP 51 - IP 65 (only versions with embedded cables)	
Insulation class	F (155 °C)	
Duty cycle	Continuous rating (ED 100%)	
Energized	Solenoid with response time = 8 ms	
De-energized	Mechanical spring with response time = 10 ms	
Electric connector	With 90° and in-line connectors: series CN - see chapter connectors on page 2.6	



MATERIALS

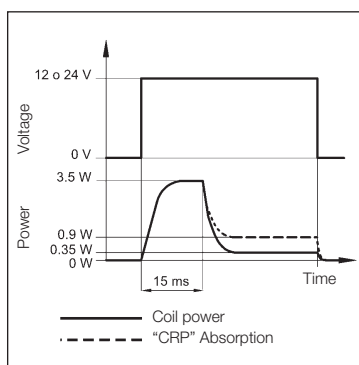
Core	Stainless steel
Body and manual override	PA and POM
Springs	Stainless steel
Seals	NBR and FKM rubber

ORDER KEY



POWER REDUCTION CIRCUIT (CRP)

The small size and the high power required to switch the solenoid valves with a nominal diameter of 1.1 mm, would not allow the coil to dissipate the heat it generates. The power reduction circuit ("CRP") prevents this effect. When energized, the coil produces an output of 3.5 W for the short period of 15 ms needed to switch the valve. Subsequently, the "CRP" acts by reducing the coil power to 0.35 W while maintaining the solenoid valve switched to the end of insertion. At full capacity the entire circuit, including LED indicators, absorbs 0.9 W.



ORDER EXAMPLE

1 0 mm valve with not standardized interface, 3/2 N.C., with 90° connector, without LED, free exhaust, nominal diameter 0.7 mm, monostable push button and 24 V DC coil: **DMC4L/02400**

* Only with: in-line connector + LED, or 90° connector + LED

** Only with cable 300 mm length

INTERFACE

Not standardized | ISO 15218 (only 3/2 N.C.)

PNEUMATIC FUNCTION

2C 2/2 N.C. | C 3/2 N.C.
A 3/2 N.O.

ELECTRICAL CONNECTION

- 90° connector + bipolar LED and diode
- Cable 300 mm length
- In-line connector + bipolar LED and diode
- 90° connector
- In-line connector

OPTIONS

- Cable 100 mm length + Molex® male connector code 51 006-0200
- Cable 100 mm length + Tyco® MODU II connector code 280358-0
- Cable 100 mm length + Molex® female connector code 51 065-0200
- 88 Pair of solenoid valves with cables 100 mm length + Molex® single female connector code 51 065-0400

EXHAUST

Channeled (standard) | L Free (with not standardized interface 3/2 N.C.)

NOMINAL DIAMETER

0.7 mm (standard) | B 1.1 mm (only 12 or 24 V DC + CRP)

MANUAL OVERRIDE

Push monostable (standard) | 1 Manual bistable override
2 Without manual override

VOLTAGE

00600	6V DC	01200	12V DC
02400	24V DC	02450-60	24V AC
01200CRP	12V DC*	02400CRP	24V DC*

COIL POSITION

Standard | 180 Rotated 180°

ATEX**

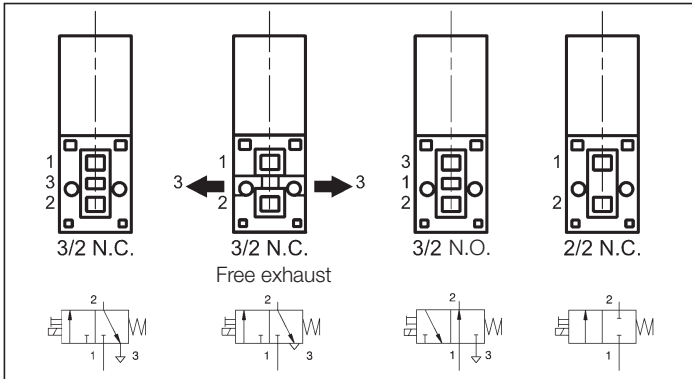
/EX Consistent with the ATEX directive II 3G c Ex nA IIC T5 Gc -5°C ≤ Ta ≤ 50°C
II 3D c Ex tc IIC T100°C IP65 Dc

Direct acting solenoid valves 10 mm

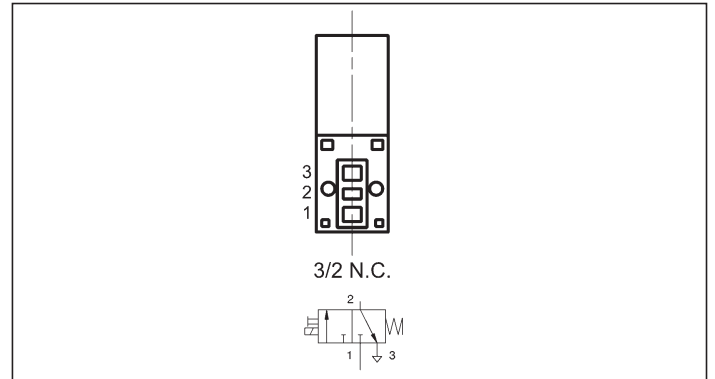
series **DM**

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PNEUMATIC FUNCTIONS WITH NOT STANDARDIZED INTERFACE

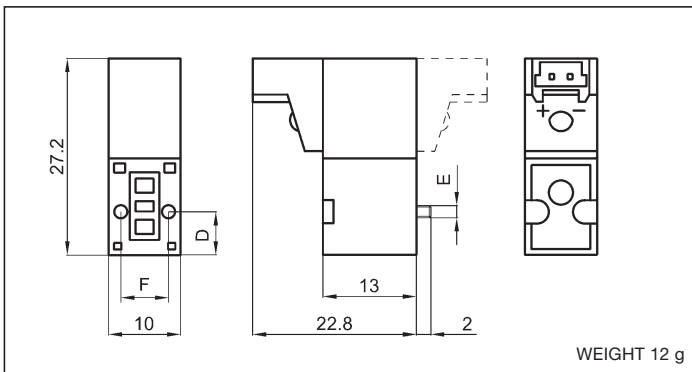


PNEUMATIC FUNCTION WITH INTERFACE TO ISO 15218

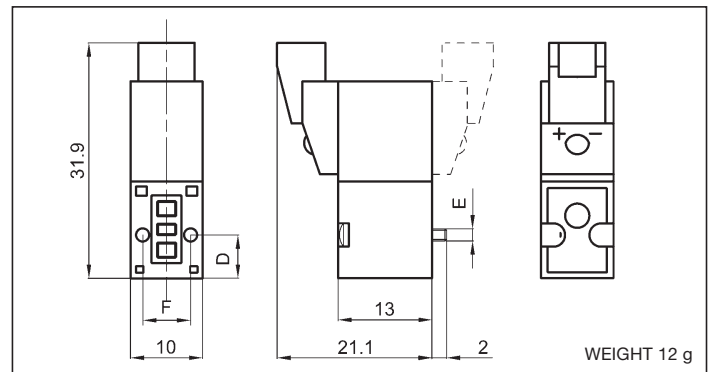


DIMENSIONS

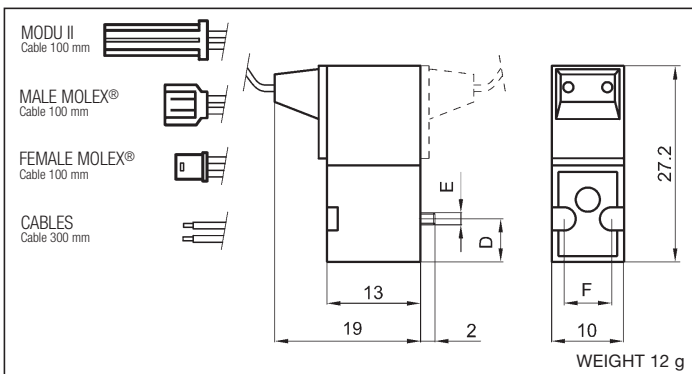
WITH 90° CONNECTOR



WITH IN-LINE CONNECTOR

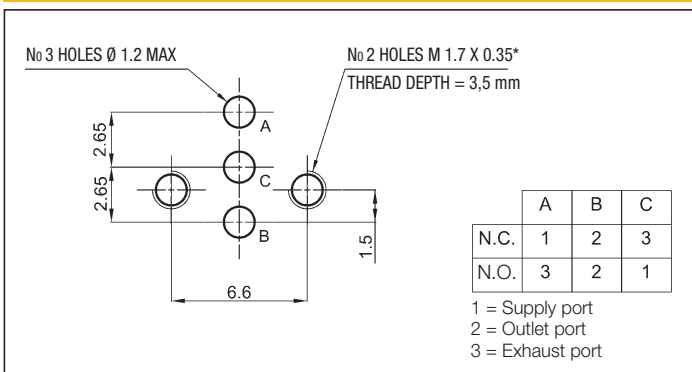


WITH CABLES



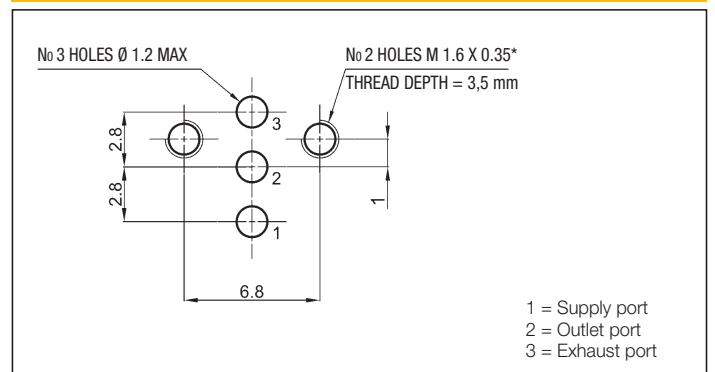
Dimensions	Non-standardized interface	Interface ISO 15218
D	6	6.2
E	M1.7 x 0.35	M1.6 x 0.35
F	6.6	6.8

DIMENSIONS OF THE NOT STANDARDIZED INTERFACE



*Self-tapping screws for plastic available. See on page 2.7

DIMENSIONS OF THE INTERFACE TO ISO 15218



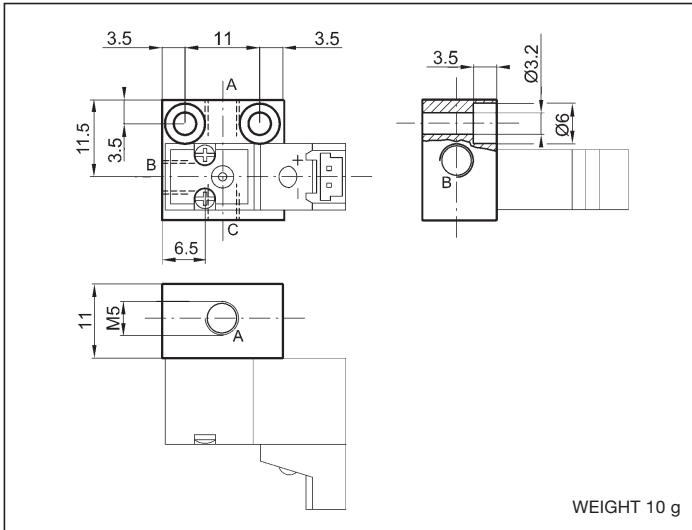
*Self-tapping screws for plastic available. See on page 2.7

series DM

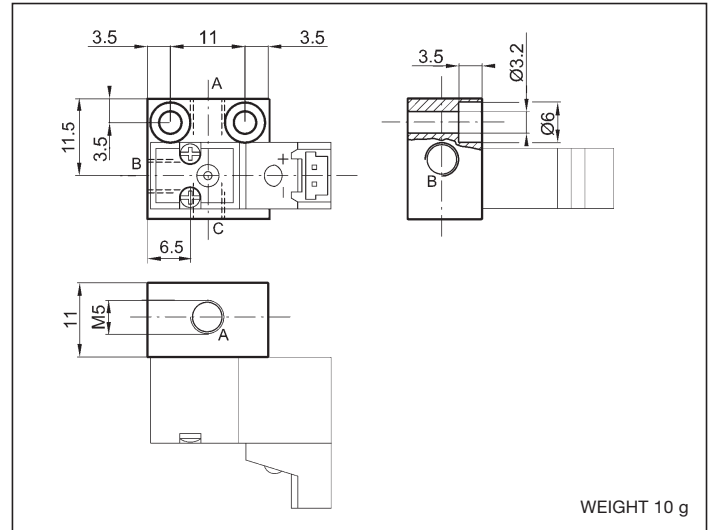
Direct acting solenoid valves 10 mm

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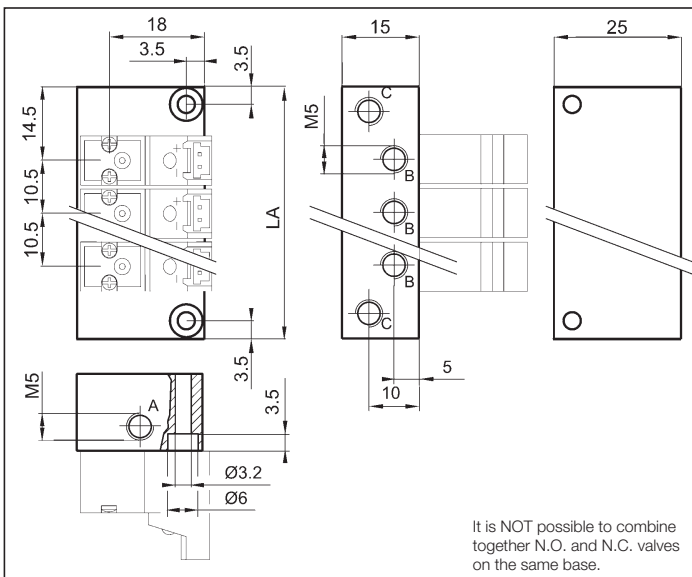
SINGLE BASE WITH NOT STANDARDIZED INTERFACE - DMP5/1



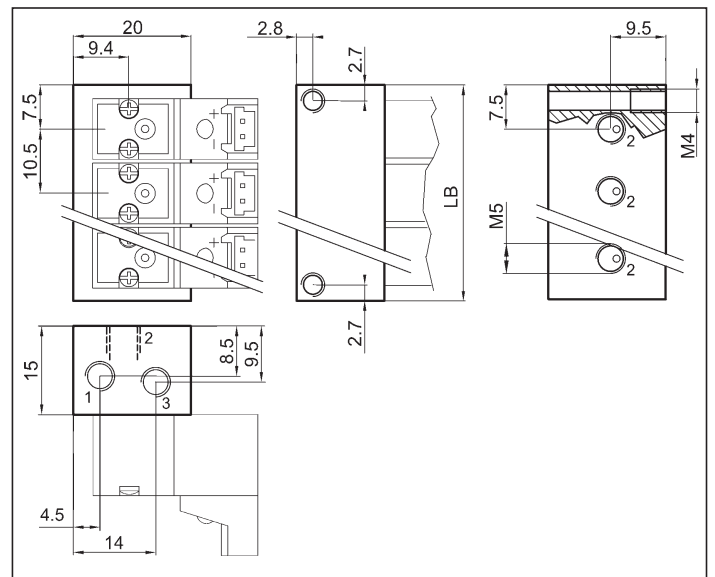
SINGLE BASE WITH INTERFACE TO ISO 15218 - DMIP5/1



MULTI-STATION BASE WITH NOT STANDARDIZED INTERFACE - DMPM5

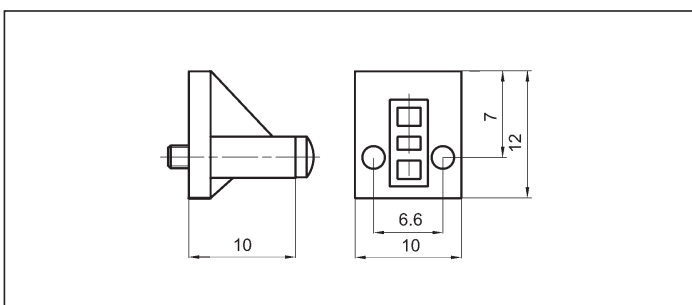


MULTI-STATION BASE WITH INTERFACE TO ISO 15218 - DMIPM5

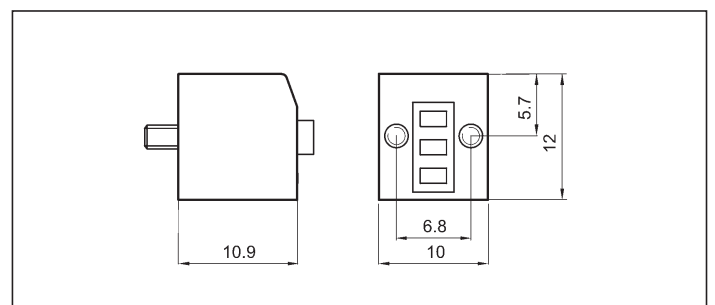


No of stations	2	3	4	5	6	7	8	9	10
LA	39.5	50	60.5	71	81.5	92	102.5	113	123.5
LB	25.5	36	46.5	57	67.5	78	88.5	99	109.5
Weight (g)	43	54	65	76	87	98	109	120	131
TYPE	DMPM5/2	DMPM5/3	DMPM5/4	DMPM5/5	DMPM5/6	DMPM5/7	DMPM5/8	DMPM5/9	DMPM5/10
Weight (g)	22	30	38	46	54	62	70	78	86
TYPE	DMIPM5/2	DMIPM5/3	DMIPM5/4	DMIPM5/5	DMIPM5/6	DMIPM5/7	DMIPM5/8	DMIPM5/9	DMIPM5/10

CLOSING PLATE FOR NOT STANDARDIZED INTERFACE - KIT/PC/DM



CLOSING PLATE FOR INTERFACE TO ISO 15218 - KIT/PC/DMI



Direct acting solenoid valves 15 mm

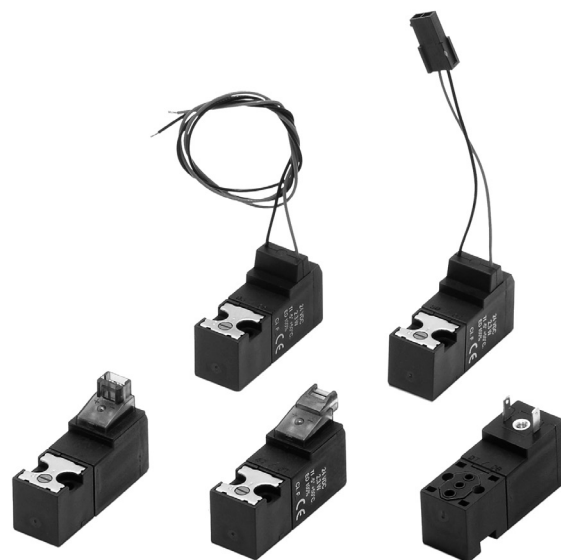
series UM

DESCRIPTION

The direct acting solenoid valves series "UM" are produced in the 3/2 and 2/2 N.C. /N.O. pneumatic functions. They are used as power valves if mounted on single and multi-station base, or as control valves if mounted, in the 3/2 pneumatic function, on body valves series "SK", "MEV", "MEK", or "UK". These valves can be used with all the fluids that can match the constructive materials. The multi-station bases support both the 3/2 N.O. than the 3/2 N.C. pneumatic functions. They can comply with ATEX directive, 3GD category, upon request.

TECHNICAL DATA

Nominal diameter	0,8 mm	1.1 mm (standard)	1.6 mm
Flow rate 1 -2 at 6 bar Δp=1	20 NI/min	30 NI/min	50 NI/min
Flow rate 2-3 at 6 bar Δp=1	30 NI/min	30 NI/min	50 NI/min
Operating pressure	0 ÷ 10 bar N.C. Not available for N.O.	0 ÷ 10 bar N.C. 0 ÷ 7 bar N.O.	0 ÷ 7 bar DC only N.C. 0 ÷ 5 bar AC (N.O. and N.C.)
Working temperature	-5 ÷ +50 °C		
Fluid	Compressed air, filtered, continuous lubricated, unlubricated or dry lubricated		
Max. operating frequency	≤30 Hz		
Coil	Adjustable		
Voltages	DC: 24 V	DC: 12 - 24 V AC: 24 110 - 220 V	
Power consumption	DC: 1 W	DC: 2.5 W AC: 2.8 VA (inrush) - 2.5 VA (holding)	
Voltage tolerance	-5 ÷ +10%		
Protection class	IP 51 - IP 65 (versions: with embedded cables or standard + connector MEK192/N)		
Insulation class	F (155 °C)		
Duty cycle	Continuous rating (ED 100%)		
Energized	Solenoid with response time = 5 ms		
De-energized	Mechanical spring with response time = 10 ms		
Electric connectors	With faston: series MEK1 92/N - see chapter connectors on page 2.18 With 90° and in-line connectors: series CN - see chapter connectors on page 2.6		

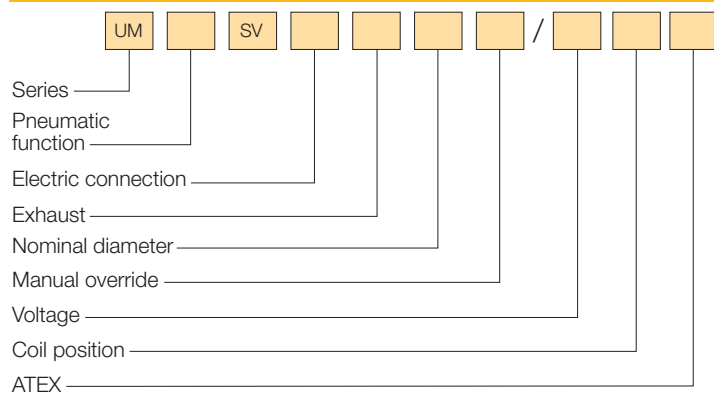


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MATERIALS

Core	Stainless steel
Body and manual override	PA and POM
Springs	Stainless steel
Seals	NBR and FKM rubber

ORDER KEY



PNEUMATIC FUNCTION

2A	2/2 N.O.	2C	2/2 N.C.
A	3/2 N.O.	C	3/2 N.C.

ELECTRIC CONNECTION

With faston (standard)

OPTIONS

- 1 90° connector + bipolar LED and diode
- 2 Cable length 300 mm
- 3 Line connector + bipolar LED and diode
- 4 90° Connector
- 5 Line connector
- 7 Cable length 100 mm + Tyco® MODU II connector code 280358-0

EXHAUST

Channeled (standard)	L Free (only 3/2 N.C.)
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NOMINAL DIAMETER

D 1.1 mm (standard)	B 1.6 mm
D 0.8 mm exhaust 1.1 mm (only N.C.)	

MANUAL OVERRIDE

F Monostable push button (standard)	E Without manual override and M3 insert
H Without manual override	G Without M3 insert
H Bistable screw driver slot	

VOLTAGE

01200	12V DC	02400	24V DC
02450-60	24V AC	11050-60	110V AC
22050-60	220V AC		

COIL POSITION

Standard	180 Rotated 180°
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ATEX*

/EX Consistent with the ATEX directive  II 3G c Ex nA IIC T5 Gc -5°C ≤ Ta ≤ 50°C
II 3D c Ex tc IIIC T100°C IP65 Dc

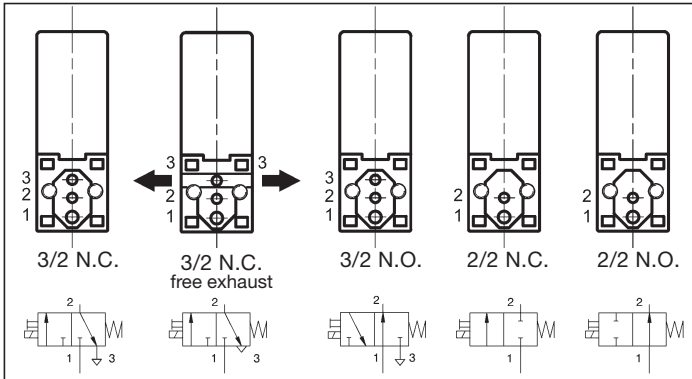
* Only with: cable 300 mm length and faston

series UM

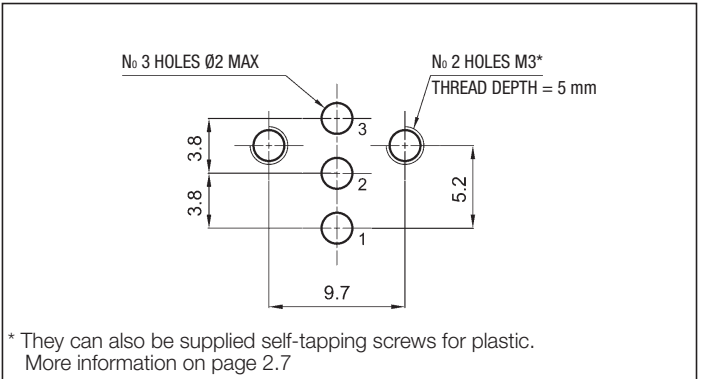
Direct acting solenoid valves 15 mm

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PNEUMATIC FUNCTIONS

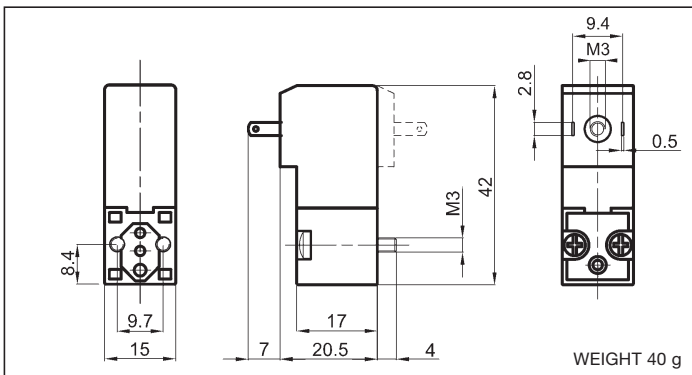


INTERFACE DIMENSIONS

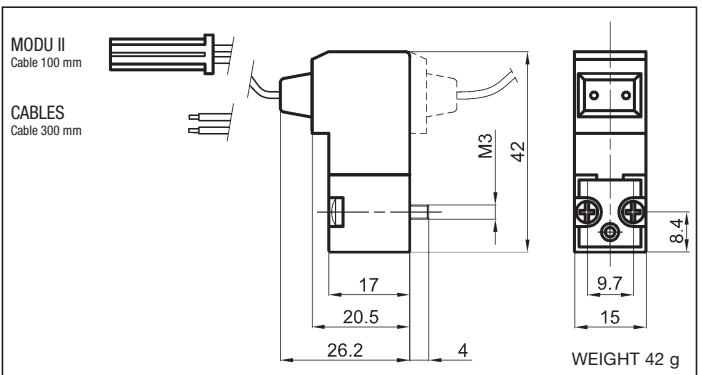


DIMENSIONS

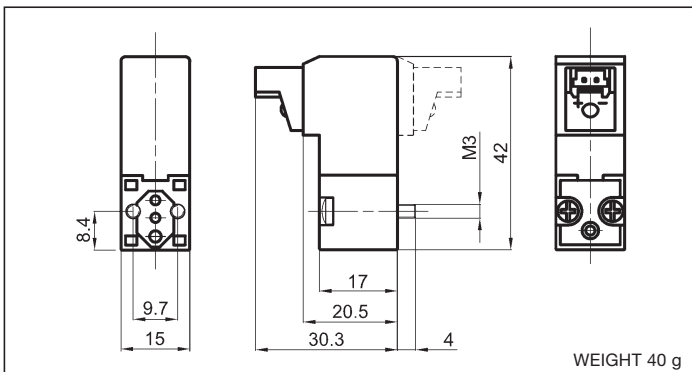
WITH FASTON FOR MEK1 92/N CONNECTOR



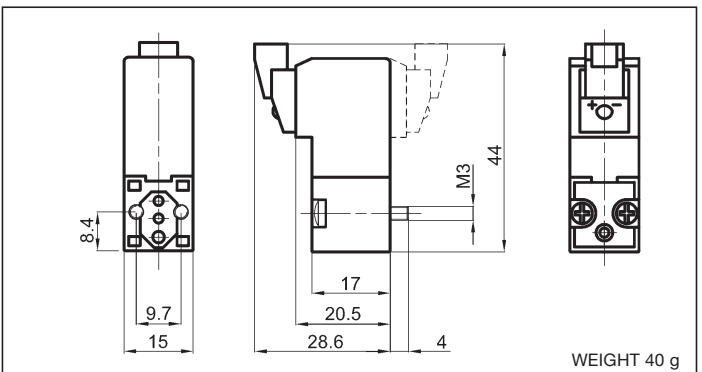
WITH CABLES



WITH 90° CONNECTOR



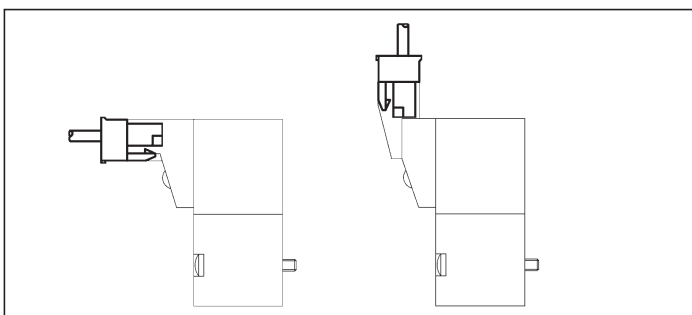
WITH IN-LINE CONNECTOR



series CN

Connectors for solenoid valves 10 mm and 15 mm

CONNECTOR FOR SOLENOID VALVES WITH 90° CONNECTION OR IN-LINE CONNECTION



CABLE LENGTH

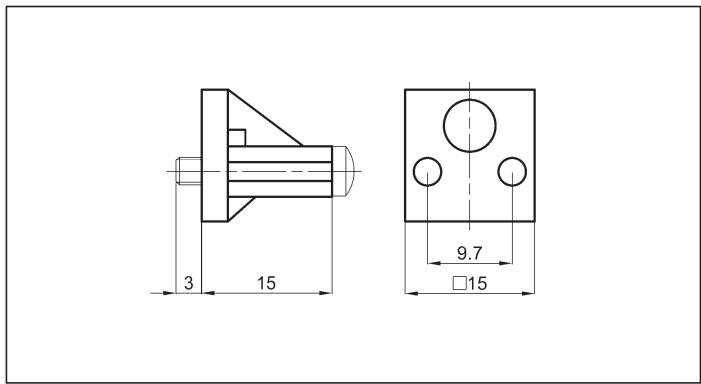
- 300 Cable length 300 mm
- 500 Cable length 500 mm
- 1000 Cable length 1000 mm

Direct acting solenoid valves 15 mm

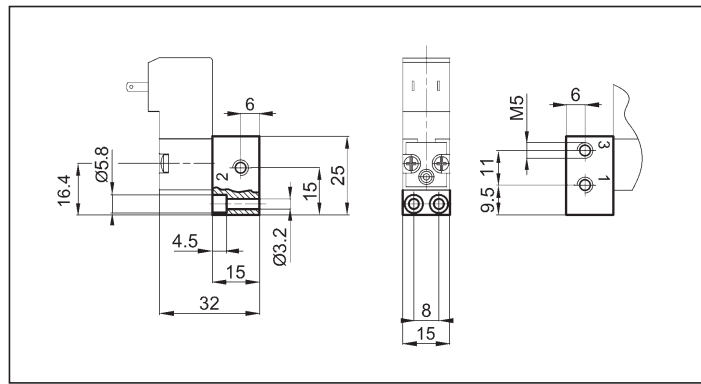
series **UM**

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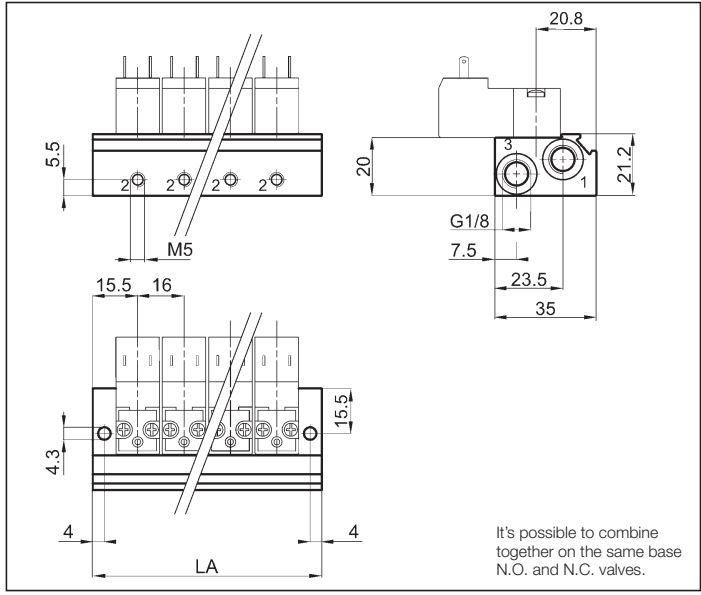
CLOSING PLATE - KIT/PC/UM



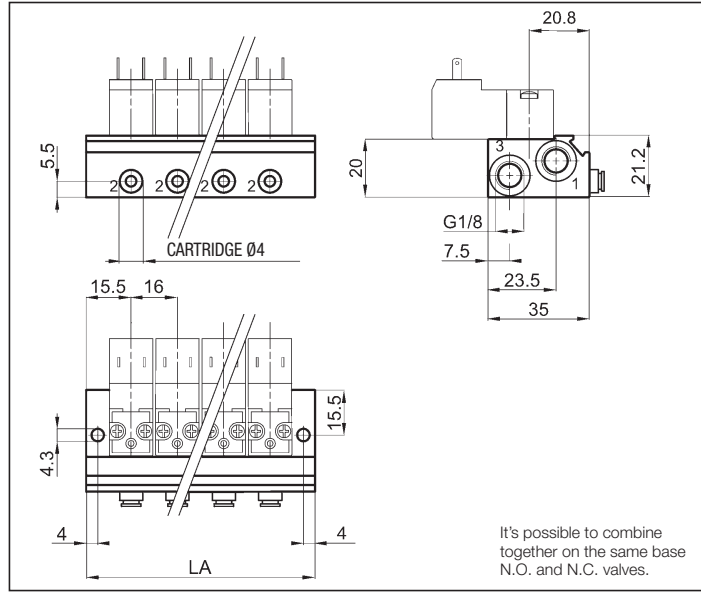
SINGLE BASE M5 - UMP5/1



MULTI -STATION BASE M5 - UMPM5



MULTI -STATION BASE WITH CARTRIDGE Ø4 mm UMP4-2



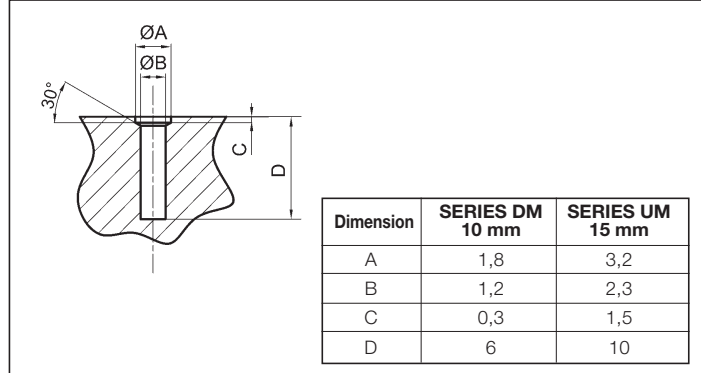
No. of stations	2	3	4	5	6	7	8	9	10
LA	47	63	79	95	111	127	143	159	175
Weight (g)	70	95	120	145	170	195	220	245	270
TYPE	UMP5/2	UMP5/3	UMP5/4	UMP5/5	UMP5/6	UMP5/7	UMP5/8	UMP5/9	UMP5/10
Weight (g)	75	100	125	150	175	200	225	250	275
TYPE	UMP4-2/2	UMP4-2/3	UMP4-2/4	UMP4-2/5	UMP4-2/6	UMP4-2/7	UMP4-2/8	UMP4-2/9	UMP4-2/10

SELF-TAPPING SCREWS FOR PLASTIC

DESCRIPTION

It's possible to order the solenoid valves with self-tapping screws for plastic instead of the standard screws (metric). Drilling fixing dimensions are approximate and we always recommend to run some assembly test. To order valves with self-tapping screws, specify it when ordering by adding the suffix "/P" to the order key of the **DM** and **UM** series. Only for DM series: to order valves with thread forming screws, specify it when ordering by adding the suffix "/T" to the order key.

DRILLING SCHEME



series UL

Direct acting solenoid valves side 32 mm

DESCRIPTION

The direct acting solenoid valves series "UL" are produced in the 3/2 N.O. (with feed from the exhaust "3") and 3/2 N.C. pneumatic functions. The function 2/2 is obtainable closing exhaust "3". Besides are available the versions with ports G 1/8, suitable for single use, and with interface for multi-station base mounting or for mounting on poppet and to ex CETOP RP 32 P (with fixed position) valve bodies. They can comply with ATEX directive, 3GD category, upon request.

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TECHNICAL DATA

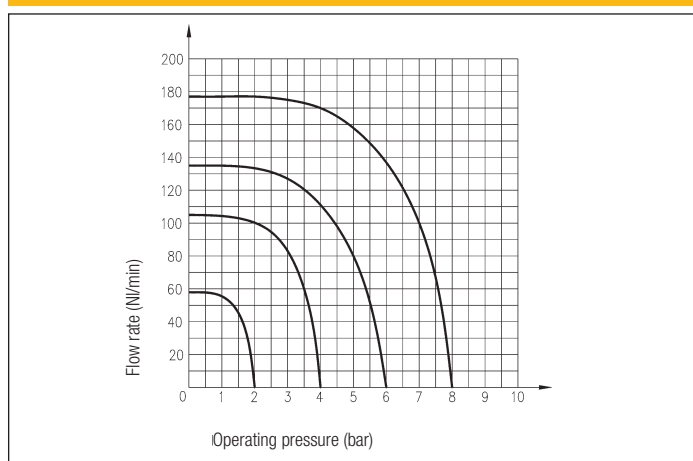
Operating pressure	0 ÷ 10 bar
Working temperature	0 ÷ +50 °C (-20 °C with dry air)
Fluid	Compressed air, filtered, continuous lubricated, unlubricated or dry lubricated
Nominal diameter	2 mm
Max. operating frequency	≤13 Hz
Coil	Integrated in the body
Voltages	DC: 24 V AC: 24 - 110 - 220 V
Apparent power	DC: 7 W AC: 17 VA (in rush) - 10 VA (holding))
Voltage tolerance	-15% +15%
Protection class	IP 65
Insulation class	F (155 °C)
Solenoid rating	ED 100%
Electric connector	ULR1B - see chapter connectors on page 2.18

MATERIALS

Core	IMRE
Body ported G 1/8	Zamak
Body with interface	Glass stiffened polyamide (zamak upon request)
Springs	Stainless steel
Seals	Viton®
Manual override	Acetal resin



FLOW CHART - UL



3 PORT G 1/8 ZAMAK - UL.../R

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate P.A. 6 bar ΔP = 1 bar (NL/min)	Manual override	Weight (g)	TYPE*
		Pilot	Return	Pilot	Return				
	3/2 N.O.	Solenoid	Mechanical spring	15	20	80	-	240	ULARG/R
	3/2 N.C.	Solenoid	Mechanical spring	15	20	80	-	240	ULCRG/R
	3/2 N.O.	Solenoid	Mechanical spring	15	20	80	Manual bistable	240	ULARV/R
	3/2 N.C.	Solenoid	Mechanical spring	15	20	80	Manual bistable	240	ULCRV/R

* SPECIFY THE VOLTAGE IN THE ORDER

E.G.: **ULARG/R02450-60**

02400 = 24 V DC

02450-60 = 24 V AC

11050-60 = 110 V AC

22050-60 = 220 V AC

/EX Consistent with the ATEX directive II 3G c Ex nA IIC T4 Gc -5°C ≤ Ta ≤ 50°C

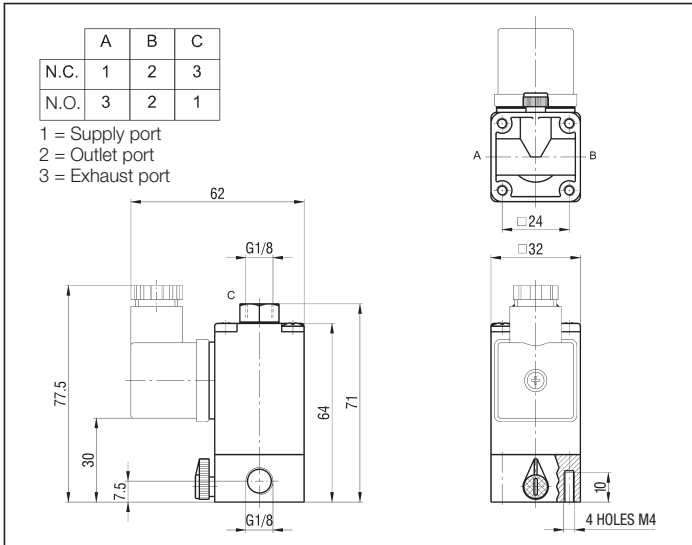
II 3D c Ex tc IIIC T135°C IP65 Dc

E.G.: **ULCRV/R02400/EX**

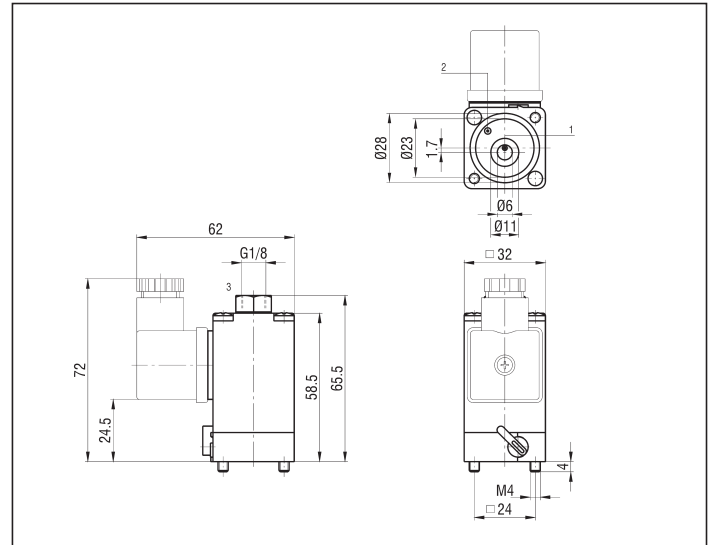
Direct acting solenoid valves side 32 mm

series **UL**

3 PORT G 1/8 ZAMAK - UL..R./R



3 PORT WITH UNIVERSAL PLASTIC INTERFACE STRIP - UL.../U



2

3 PORT WITH INTERFACE FOR MULTI-STATION BASES AND POPPET / EX CETOP VALVES (WITH FIXED POSITION)

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate P.A. 6 bar $\Delta P = 1 \text{ bar (Nl/min)}$	Manual override	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized				
	3/2 N.O.	Solenoid	Mechanical spring	15	20	80	-	200	ULASG/R
	3/2 N.C.	Solenoid	Mechanical spring	15	20	80	-	200	ULCSG/R
	3/2 N.O.	Solenoid	Mechanical spring	15	20	80	Manual bistable	200	ULASV/R
	3/2 N.C.	Solenoid	Mechanical spring	15	20	80	Manual bistable	200	ULCSV/R

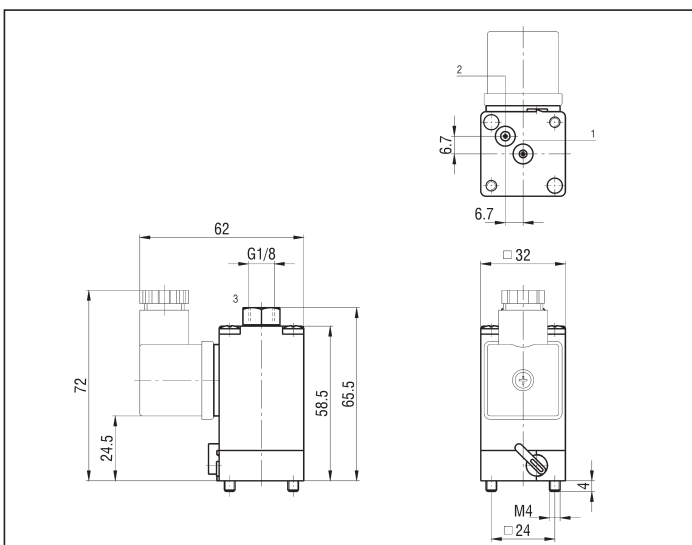
* SPECIFY THE VOLTAGE IN THE ORDER
E.G.: **ULARG/R02450-60**

02400 = 24 V DC 11050-60 = 110 V AC
02450-60 = 24 V AC 22050-60 = 220 V AC

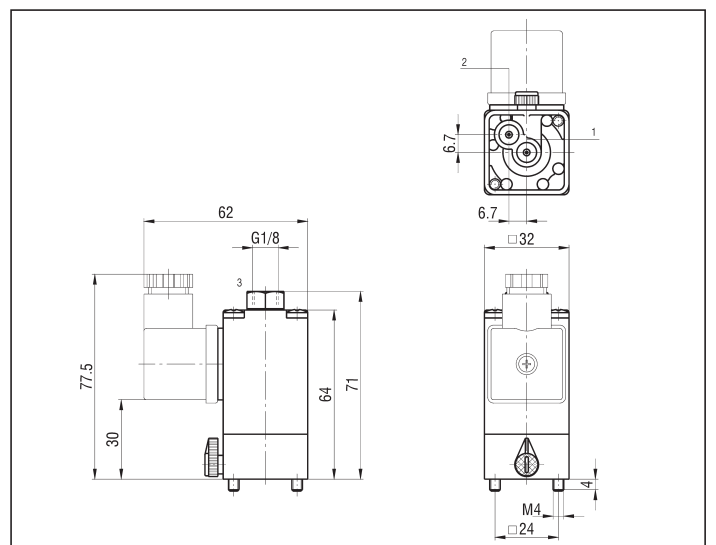
P.S. 1: For body valve in zamak add the letter "A" to the type.
E.G.: 3/2 N.C. with manual override, body in zamak **ULCSV/RA** + voltage.
P.S. 2: For body valve in plastic and universal interface strip change the letter "R" of the type with the letter "U".
E.G.: 3/2 N.C. with manual override, body in plastic **ULCSV/U** + voltage.

/EX Consistent with the ATEX directive II 3G c Ex nA IIC T4 Gc -5°C ≤ Ta ≤ 50°C
E.G.: **ULCSV/R02400/EX**

3 PORT WITH PLASTIC INTERFACE STRIP - UL..S./R



3 PORT WITH ZAMAK INTERFACE STRIP - UL.../RA

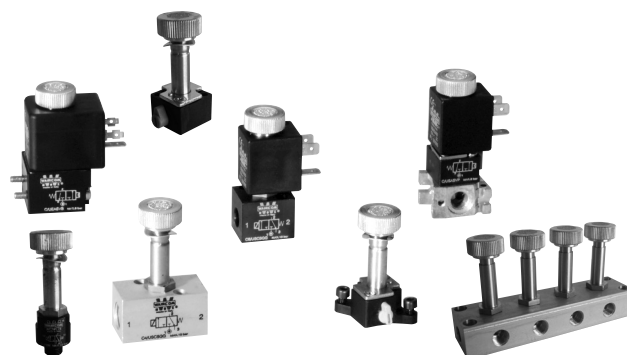


series C/

Direct acting solenoid valves with sleeve Ø 9 mm

DESCRIPTION

The direct acting solenoid valves series "C/" are produced in the 3/2 N.O. and 3/2 N.C. pneumatic functions. Using the same mechanic, it is possible to obtain four standard versions: side 22 mm - body ported, side 22 mm - body with interface, side 30 mm - body with ex CNOMO interface and body with interface for mounting on poppet and ex CETOP (with fixed position and rotatable coil) valves. All the solenoid valves with interface can be mounted on single modular bases. The version side 30 mm with ex CNOMO interface, in the 3/2 N.C. pneumatic function, has two different manual overrides as standard: bistable screwdriver and monostable push button. They can comply with ATEX directive, 2GD category, upon request.



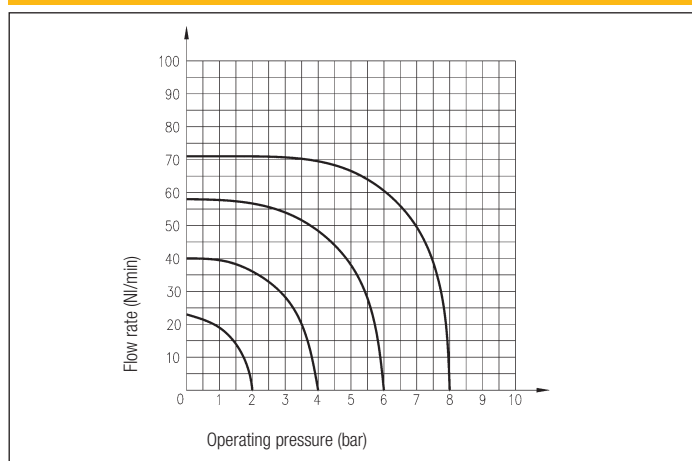
TECHNICAL DATA

Operating pressure	0 ÷ 10 bar N.C. 0 ÷ 8 bar N.O.
Working temperature	0 ÷ +50 °C (-20 °C with dry air)
Fluid	Compressed air, filtered, continuous lubricated, unlubricated or dry lubricated
Sleeve	Ø 9 mm
Nominal diameter	1,1 mm
Max. operating frequency	≤13 Hz
Coils	USB - see chapter Coils on page 2.17 USBG - see chapter Coils on page 2.17 USBG2 - see chapter Coils on page 2.17
Electric connectors	USR102/N9 - see chapter Connectors on page 2.18 ULR1B - see chapter Connectors on page 2.18

MATERIALS

Sleeve	Nickel-plated brass
Core	IMRE
Body ported G 1/8 - G 1/4	Aluminium
Body and manual override	Acetal resin
Locking ring nut	Plastic
Springs	Stainless steel
Seals	Viton®

FLOW CHART - C/



3 PORT G 1/8 - G 1/4 SIDE 22 mm

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Size	Manual override	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized					
	3/2 N.O.	Solenoid	Mechanical spring	10	20	48	G 1/8	-	46	C8/USASGG
	3/2 N.O.	Solenoid	Mechanical spring	10	20	48	G 1/4	-	46	C4/USASGG
	3/2 N.C.	Solenoid	Mechanical spring	10	20	36	G 1/8	-	65	C8/USCSGG
	3/2 N.C.	Solenoid	Mechanical spring	10	20	36	G 1/4	-	80	C4/USCSGG

* THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS

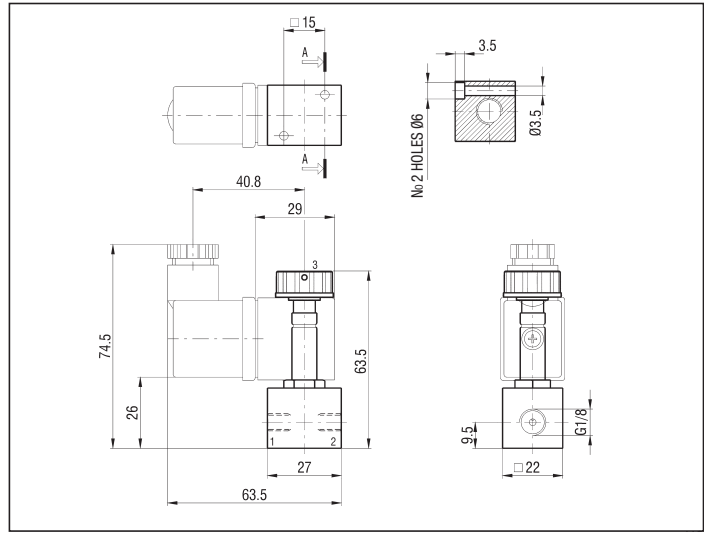
/EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 50°C E.G.: C8/USASGG/EX

Direct acting
solenoid valves with sleeve Ø 9 mm

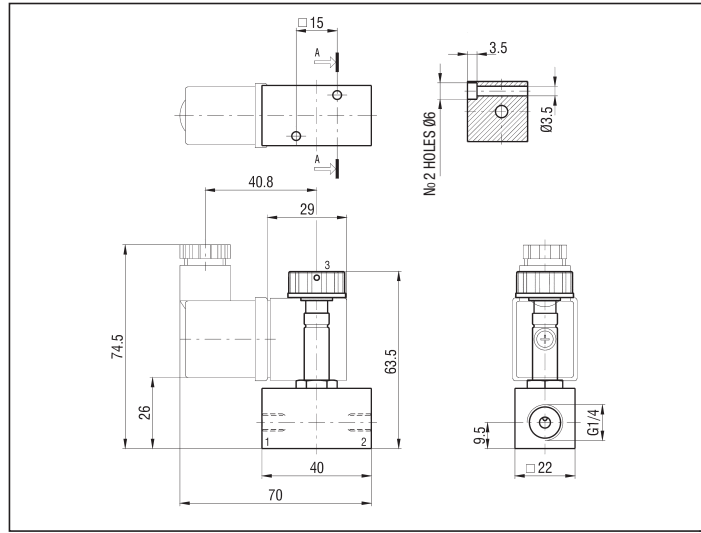
series **C/**

2

3 PORT G 1/8



3 PORT G 1/4



MANIFOLD BASE OF SOLENOID VALVES SIDE PORTED G 1/8 N.C. - C8/USCP AND N.O. - C8/USAP

No of stations	4	6	8
LA	115	165	215
LB	105	155	205
Weight (g)	172	258	344
TYPE N.C.	C8/USCP/4	C8/USCP/6	C8/USCP/8
TYPE N.O.	C8/USAP/4	C8/USAP/6	C8/USAP/8

It is possible to install N.O. solenoid valves with N.C. solenoid valves on the same modular base. Combination on request.



series C/

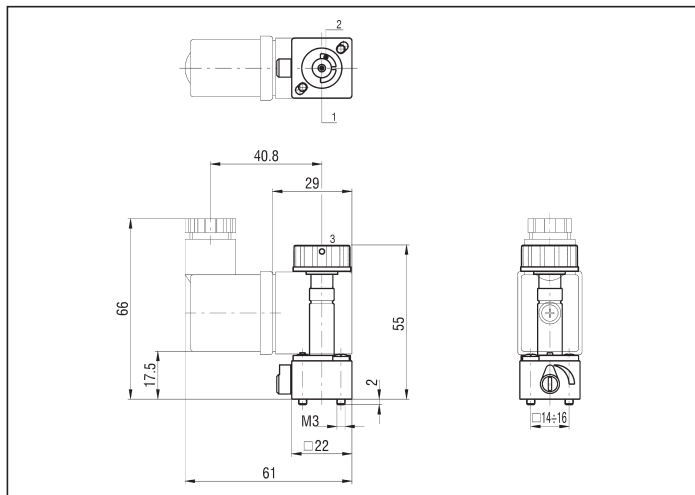
Direct acting solenoid valves with sleeve Ø 9 mm - bases

3 PORT WITH INTERFACE FOR MODULAR BASES AND SPOOL VALVES SIDE 22 mm

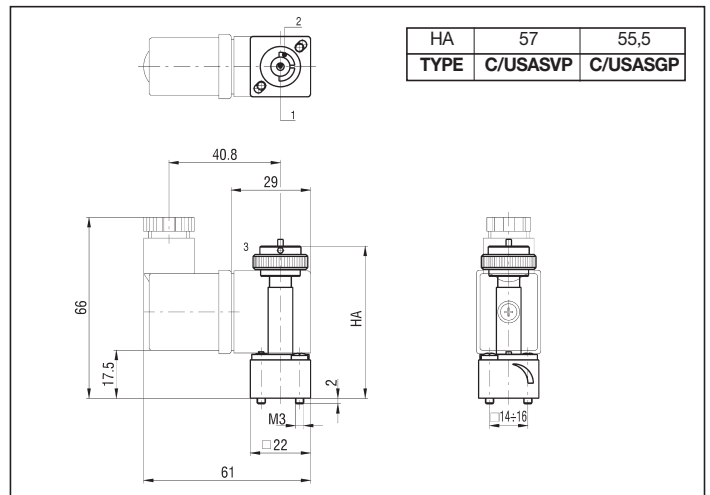
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (Nl/min)	Manual override	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized				
	3/2 N.O.	Solenoid	Mechanical spring	10	25	36	Manual monostable	45	C/USASVP
	3/2 N.O.	Solenoid	Mechanical spring	10	25	36	-	30	C/USASGP
	3/2 N.C.	Solenoid	Mechanical spring	10	25	36	Manual bistable	30	C/USCSVP
	3/2 N.C.	Solenoid	Mechanical spring	10	25	36	-	30	C/USCSGP

* THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS /EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 50°C ES.: C/USASVP/EX

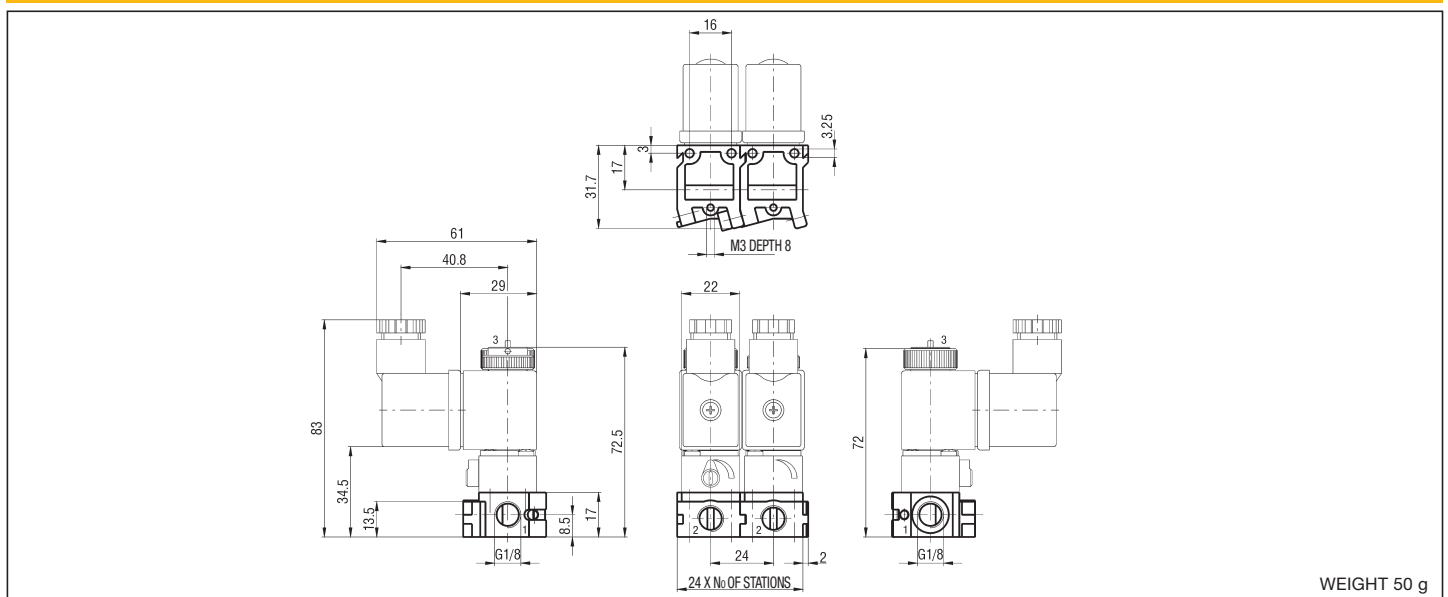
C/USCSVP



C/USASVP - C/USASGP



MODULAR BASE SIDE PORTED G 1/8 - ELPP8S



HOW TO ORDER A SOLENOID VALVE COMPLETE OF COIL AND BASE
Example: 3/2 N.C. solenoid valve base mounted (with manual override) + coil 24 V D.C. - ELPP8S/P/USB/02400

DESCRIPTION	TYPE
3/2 N.O. + base + coil (with manual override)	ELPP8S/PAV/USB/voltage
3/2 N.O. + base + coil (without manual override)	ELPP8S/PAG/USB/voltage
3/2 N.C. + base + coil (with manual override)	ELPP8S/P/USB/voltage

Direct acting solenoid valves with sleeve Ø 9 mm - bases

series **C/**

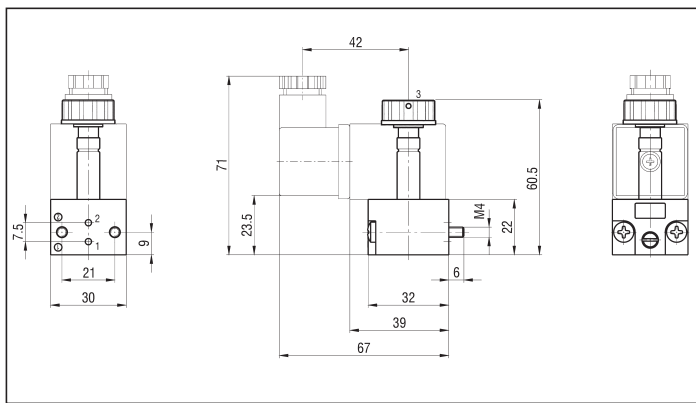
2

3 PORT WITH EX CNOMO INTERFACE FOR MODULAR BASES AND VALVES TO ISO 5599/1

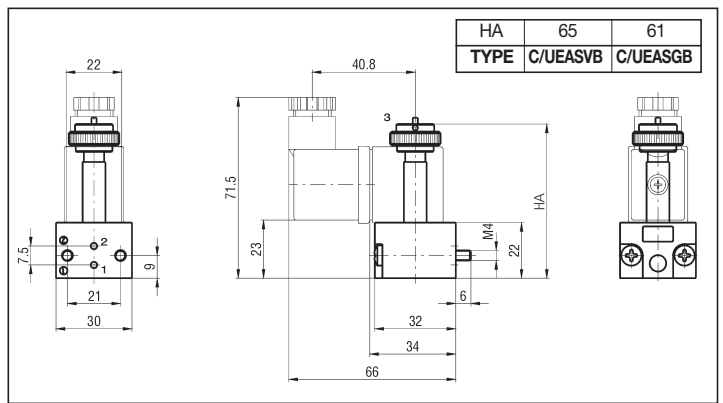
Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (NI/min)	Manual override	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized				
	3/2 N.O.	Solenoid	Mechanical spring	13	23	36	Manual monostable	60	C/UEASVB
	3/2 N.O.	Solenoid	Mechanical spring	13	23	36	-	45	C/UEASGB
	3/2 N.C.	Solenoid	Mechanical spring	10	25	36	Bistable screw driver slot	45	C/UECSVB
	3/2 N.C.	Solenoid	Mechanical spring	10	25	36	Monostable push button	45	C/UECSPB

* THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS /EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C ≤ Ta ≤ 50°C ES.: C/UEASVB/EX

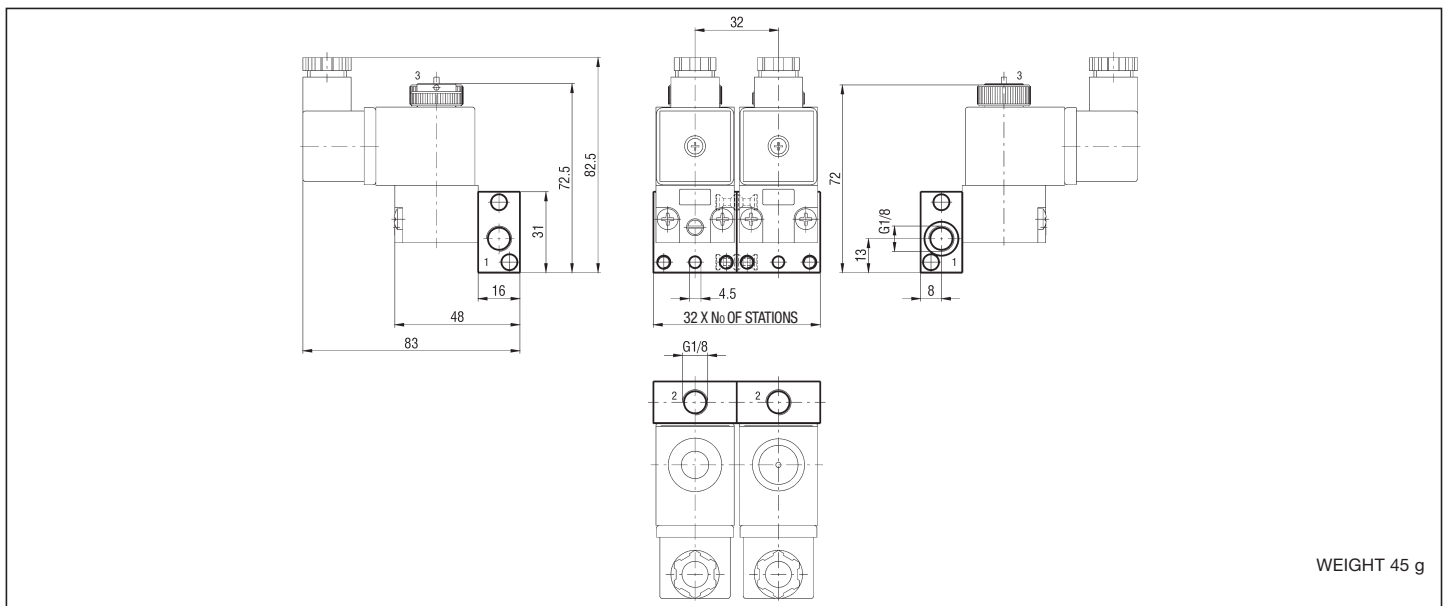
C/UECSVB - C/UECSPB



C/UEASVB - C/UEASGB



EX CNOMO MODULAR BASE SIDE PORTED G 1/8 - ELPG8S



WEIGHT 45 g

P.S.: Base includes the coupling pin with grains and seals.

HOW TO ORDER A SOLENOID VALVE COMPLETE OF COIL AND BASE
 Example: 3/2 N.O. solenoid valve base mounted (with manual override)
 + coil 24 V DC **ELPG8S/BAV/USBG/02400**

DESCRIPTION	TYPE
3/2 N.O. + base + coil (with manual override)	ELPG8S/BAV/USBG/voltage
3/2 N.O. + base + coil (without manual override)	ELPG8S/BAG/USBG/voltage
3/2 N.C. + base + coil (with manual override)	ELPG8S/B/USBG/voltage
3/2 N.C. base + coil (with push button manual override)	ELPG8S/BP/USBG/voltage

series C/

Direct acting solenoid valves with sleeve Ø 9 mm

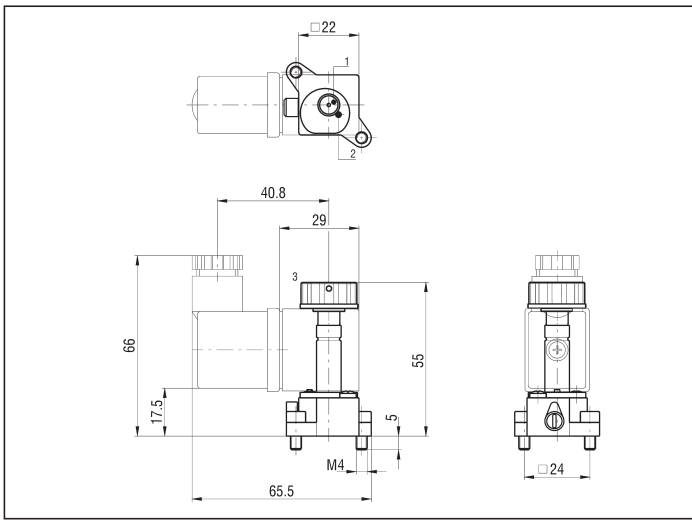
3 PORT WITH INTERFACE FOR POPPET AND EX CETOP (WITH FIXED POSITION AND ROTATABLE COIL) VALVES

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (NI/min)	Manual override	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized				
	3/2 N.C.	Solenoid	Mechanical spring	10	25	36	Manual bistable	30	C/USCSVG

2

* THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS /EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C≤Ta≤50°C ES.:C/USCSVG/EX

C/USCSVG



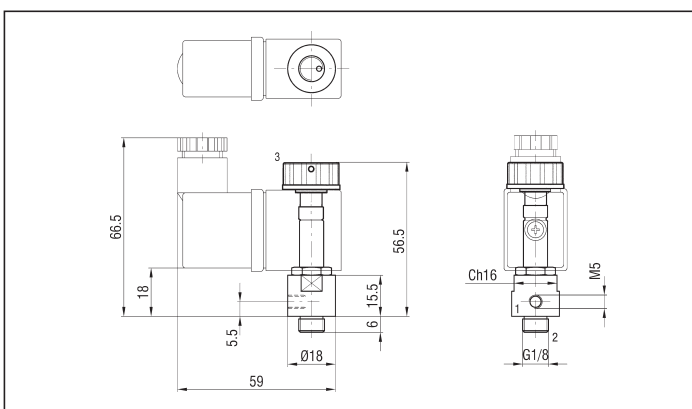
3 PORT BODY PORTED G 1/8 FOR DIRECT MOUNTING

This solenoid valve has been specifically designed to pilot single acting small cylinders and pneumatic valves. The input connection is M5 while the output has a male thread G1/8 that allows the direct assembling of the solenoid valve on the component.

Symbol	Function	Controls		Response time at 6 bar (ms)		Flow rate at 6 bar ΔP = 1 bar (NI/min)	Manual override	Weight (g)	TYPE*
		Pilot	Return	Energized	De-energized				
	3/2 N.O.	Solenoid	Mechanical spring	10	20	36	-	46	A/ELP8M
	3/2 N.C.	Solenoid	Mechanical spring	10	20	36	-	46	C/ELP8M

* THE TYPES OF THE SOLENOID VALVES DO NOT INCLUDE COILS /EX Consistent with the ATEX directive II 2GD c T5 T100°C -20°C≤Ta≤50°C ES.:C/ELP8M/EX

C/ELP8M



Coils for solenoid valves
with sleeve Ø 9 mm

series **USB/USBG**

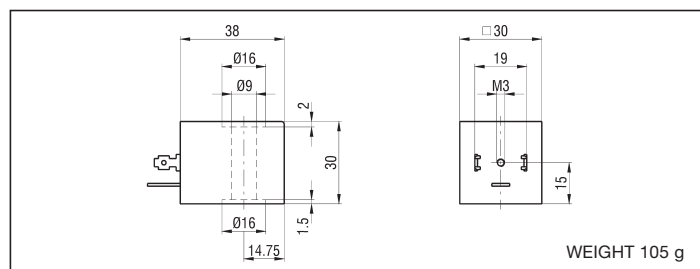
TECHNICAL DATA USB - USBG

Voltages	DC: 24 V AC: 24 - 110 - 220 V
Working temperature	-30 ÷ +40 °C basic version -30 ÷ +70 °C low absorption version
Versions	Basic version DC: 5 W AC: 11 VA (inrush) - 8 VA (holding) Low absorption version DC: 3 W AC: 5,6 VA (inrush) - 2,5 VA (holding)
Standard frequencies	AC 50 - 60 Hz
Voltage tolerance	-10% +10%
Coil insulation class	H (180 °C)
Solenoid rating	ED 100%
Electrical connection	Fit for connector to DIN 46244 standard See chapter Connectors on page 2.18
Protection class with connector	IP 65 EN 60529

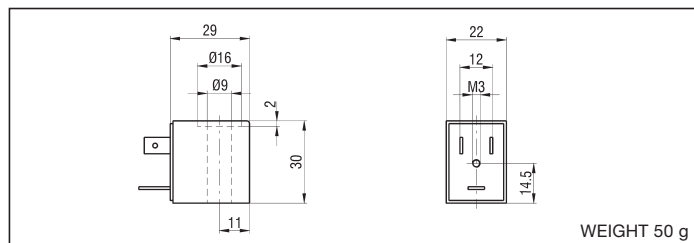
MATERIALS USB - USBG

Body	Glass stiffened polyamide
Coil winding	Copper wire

USBG



USB



DESCRIPTION	TYPE*
Coil 22 mm 24 V DC	USB/02400
Coil 22 mm 24 V AC	USB/02450-60
Coil 22 mm 110 V AC	USB/11050-60
Coil 22 mm 220 V AC	USB/22050-60
OTHER VOLTAGES	USB/...

*/EX Consistent with the ATEX directive II 3G Ex nA IIC T4 Gc -30°C≤Ta≤40°C
II 3D Ex tc IIIC T135°C IP65 Dc

E.G.: **USB/02400/EX**

P.S.: ADD THE SUFFIX "-BA" JUST AFTER THE USB TYPE, TO ORDER THE LOW ABSORPTION VERSION COILS. E.G.: **USB-BA/02400**

DESCRIPTION	TYPE*
Coil 30 mm 24 V DC	USBG/02400
Coil 30 mm 24 V AC	USBG/02450-60
Coil 30 mm 110 V AC	USBG/11050-60
Coil 30 mm 220 V AC	USBG/22050-60
OTHER VOLTAGES	USBG/...

*/EX Consistent with the ATEX directive II 3G Ex nA IIC T4 Gc -30°C≤Ta≤40°C
II 3D Ex tc IIIC T135°C IP65 Dc

E.G.: **USBG/02400/EX**

P.S.: ADD THE SUFFIX "-BA" JUST AFTER THE USBG TYPE, TO ORDER THE LOW ABSORPTION VERSION COILS. E.G.: **USBG-BA/02400**

Coils for solenoid valves
side 30 mm with sleeve Ø 9 mm
conform to ATEX 2GD directive

series **USBG2/EX**

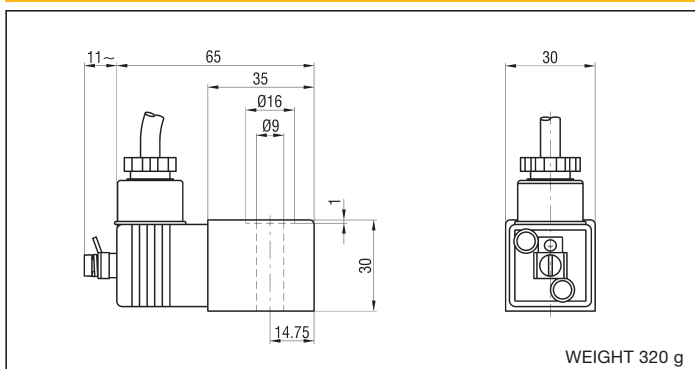
TECHNICAL DATA

Voltages	DC: 24 V AC: 24 V
Working temperature	-50 ÷ +50 °C
Versions	DC: 3 W AC: 4,8 VA (inrush) - 3,2 VA (holding)
Standard frequencies	AC 50 - 60 Hz
Voltage tolerance	-10% +10%
Coil insulation class	H (180 °C)
Solenoid rating	ED 100%
Connectors	3 m long emerging cable
Protection class	IP 66

MATERIALS

Body	Glass stiffened polyamide
Coil winding	Copper wire

USBG 2 - ATEX 2GD



DESCRIPTION	TYPE*
Coil 30 mm 24 V DC	USBG2/02400/EX
Coil 30 mm 24 V AC	USBG2/02450-60/EX

*/EX Consistent with the ATEX directive II 2G Ex mb IIC T5 Gb -50°C≤Ta≤40°C
II 2D Ex tb IIIC T95°C IP65 Db

E.G.: **USBG2/02400/EX**


P.S.: For different voltages, please contact our commercial office

series MEK192/N

Connectors DIN 43650-C
for solenoid valves
side 15 mm series UM

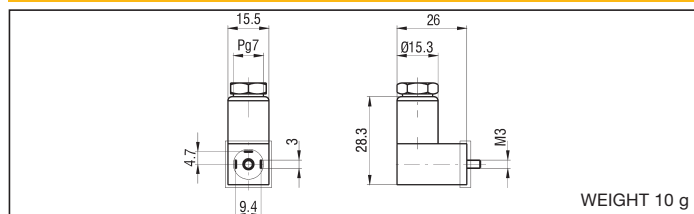
TECHNICAL DATA

Voltages	DC: MAX 300 V AC: MAX 250 V
Working temperature	-40 ÷ +90 °C
Versions	Basic With indicator light (LED) With indicator light (LED) and varistat (VDR) as electrical protection
Number of pins	2 + earthed
Nominal current	6 A
Maximum current	10 A
Contacts resistance	≤ 4 mOhm
Protection class	IP 65 EN 60529
Connector insulation class	IEC 664 / VDE 0110-1/89

*/EX Consistent with the ATEX directive  II 2G IIC T6 Gb
II 2D Ex tb IIIC T85°C Db IP65/IP67

E.G.: MEK192/N/EX

MEK192/N



DESCRIPTION	TYPE
Basic connector	MEK192/N*
Connector with led + VDR as protection 24 V DC/AC	MEK192/NVD 24 V CC/CA
Connector with led + VDR as protection 110 V DC/AC	MEK192/NVD 110 V CC/CA
Connector with led + VDR as protection 220 V DC/AC	MEK192/NVD 220 V CC/CA
Connector with led 24 V DC/AC	MEK192/NLED 24 V CC/CA
Connector with led 110/220 V DC/AC	MEK192/NLED 110/220 V CC/CA

series USR102/N9

Connectors DIN 43650-B
for coils side 22 mm series
USB and series WE (3A)

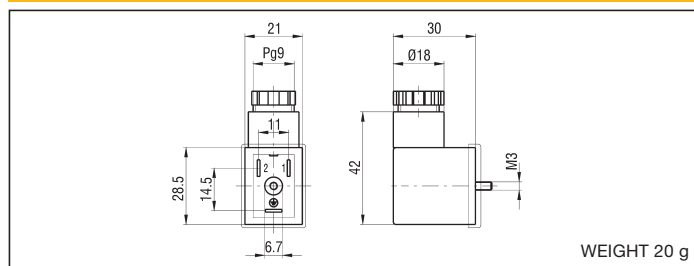
TECHNICAL DATA

Voltages	DC: MAX 300 V AC: MAX 250 V
Working temperature	-40 ÷ +90 °C
Versions	Basic With indicator light (LED) With indicator light (LED) and varistat (VDR) as electrical protection
Number of pins	2 + earthed
Nominal current	10 A
Maximum current	16 A
Contacts resistance	≤ 4 mOhm
Protection class	IP 65 EN 60529
Connector insulation class	IEC 664 / VDE 0110-1/89

*/EX Consistent with the ATEX directive  II 2G IIC T6 Gb
II 2D Ex tb IIIC T85°C Db IP65/IP67

E.G.: USR102/N9/EX

USR102/N9




DESCRIPTION	TYPE
Basic connector	USR102/N9*
Connector with led + VDR as protection 24 V DC/AC	USR102/N9VD 24 V CC/CA
Connector with led + VDR as protection 110 V DC/AC	USR102/N9VD 110 V CC/CA
Connector with led + VDR as protection 220 V DC/AC	USR102/N9VD 220 V CC/CA
Connector with led 24 V DC/AC	USR102/N9LED 24 V CC/CA
Connector with led 110/220 V DC/AC	USR102/N9LED 110/220 V CC/CA

series ULR1B

Connectors DIN 43650-A for
solenoid valves side 30 mm series UL and
coils series USBG and series WE (2A, 5A)

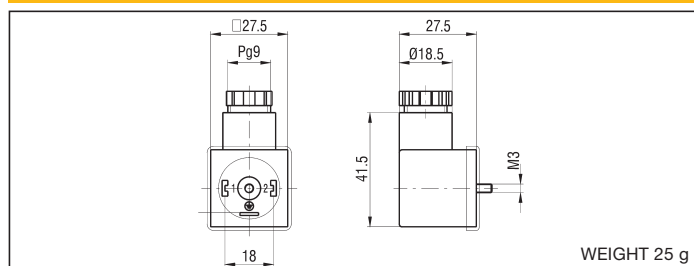
TECHNICAL DATA

Voltages	DC: MAX 300 V AC: MAX 250 V
Working temperature	-40 ÷ +90 °C
Versions	Basic With indicator light (LED) With indicator light (LED) and varistat (VDR) as electrical protection
Number of pins	2 + earthed
Nominal current	10 A
Maximum current	16 A
Contacts resistance	≤ 4 mOhm
Protection class	IP 65 EN 60529
Connector insulation class	IEC 664 / VDE 0110-1/89

*/EX Consistent with the ATEX directive  II 2G IIC T6 Gb
II 2D Ex tb IIIC T85°C Db IP65/IP67

E.G.: ULR1B/EX

ULR1B



DESCRIPTION	TYPE
Basic connector	ULR1B*
Connector with led + VDR as protection 24 V DC/AC	ULR1B/VD 24 V CC/CA
Connector with led + VDR as protection 110 V DC/AC	ULR1B/VD 110 V CC/CA
Connector with led + VDR as protection 220 V DC/AC	ULR1B/VD 220 V CC/CA
Connector with led 24 V DC/AC	ULR1B/LED 24 V CC/CA
Connector with led 110/220 V DC/AC	ULR1B/LED 110/220 V CC/CA