P8 385

Piezo-controlled pneumatic valve
for intrinsically safe applications

Technical Data

EN MET

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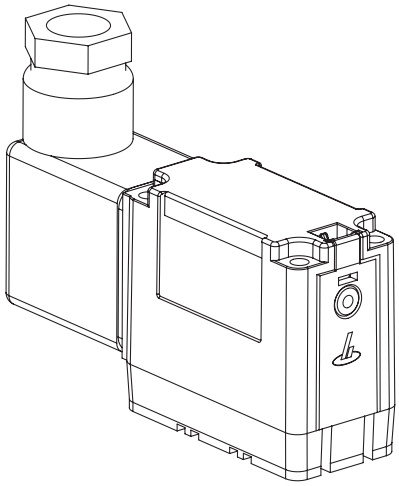

GENERAL AND PNEUMATIC PROPERTIES

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GENERAL PROPERTIES

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Type	P8 385
Function	Switching, 3/2-way, normally closed, overlapping
Actuation type	Piezoelectric pilot
Constructive structure	Seat valve
Connection type	Flange [1]
Weight	0.08 kg
Installation position	Any
Protection type	IP65 (DIN EN 60529 A1: 2000) [2]
Storage temperature	-40°C to +80°C
Ambient temperature [3]	-25 to +60°C
Medium temperature [3]	-25 to +60°C
Material	Anodized aluminium, brass, spring steel, plastic, elastomer, NBR, ARCAP
Behavior in case of energy failure	Port 2 venting
RoHS-Conformity	RoHS 2011/65/EU
Approval	Acc. to EU Type test certificate

[1] Base plates for threaded connection see accessories
[2] With mounted connector plug and tight pneumatic connections
[3] For use below the freezing point, dried air is required (pressure dew point 10 K below ambient or medium temperature).

GENERAL PNEUMATIC PROPERTIES

Media [4]	Compressed air and neutral gases
Media quality	According to ISO 8573-1:2010 (7:3:4)
Flow direction on	From 1 to 2
Flow direction off	From 2 to 3
Approval acc. to EU Type test certificate	
Category, ignition type protection	Gas: II 1G Ex ia IIC T4/T5/T6 Ga Dust: II 2D Ex ia IIIB T125°C Db

[4] Other media only after approval by the manufacturer

PNEUMATIC PROPERTIES

Nominal pressure (p_N)	6 bar
Input pressure min ($p1_{min}$)	1.5 bar
Input pressure max ($p1_{max}$)	8 bar
Nominal flow rate 1 to 2 (Q_N) [5]	> 50 l/min

[5] Measured at p1 = nominal pressure and pressure drop 1 bar

ELECTRICAL PROPERTIES

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ELECTRICAL PROPERTIES

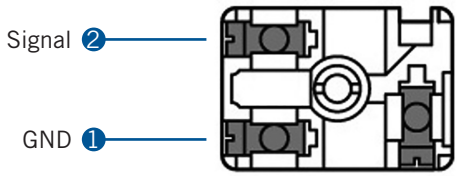
ELECTRONIC TYPE	PT63	PM64	PN61	PN65	PT67
Rel. duty cycle	100% within maximal duty time of 6000 h permanent operation				
Electrical connection	DIN EN 175301-803-B				
Nominal voltage (U_N)	9 V DC	16 V DC	30 V DC	30 V DC	9 V DC
Switching voltage ON (U_{on})	5.5 to 9 V DC	6 to 16 V DC	7 to 30 V DC	11 to 30 V DC	4.5 to 9 V DC
Switching voltage OFF (U_{off})	1 V DC				
Holding current ON (I_{on})	1 to 19 mA	1.7 to 23 mA	2 to 19 mA	2 to 6.6 mA	1 to 19 mA
Holding current OFF (I_{off})	0.05 mA	0.1 mA	0.22 mA	0.1 mA	0.05 mA
Power consumption min (P_{min})	5.5 mW	10 mW	14 mW	22 mW	4.5 mW
Power consumption max (P_{max})	171 mW	368 mW	571 mW	198 mW	171 mW
Safety data according to EU type test certificate					
Voltage (U_i)	9 V DC	16 V DC	30 V DC	30 V DC	9 V DC
Current (I_i)	Not relevant				
External capacitance (C_i)	12 nF				
External inductance (L_i)	Negligible				

FORMULA TO CALCULATE THE ELECTRIC CURRENT

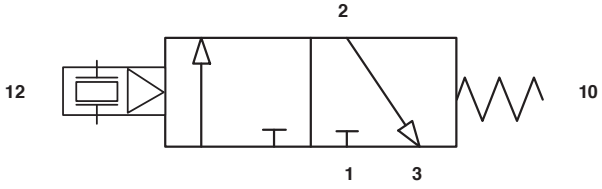
PT63	PM64	PN61	PN65	PT67
I [mA] = (Ux5.14) – 27.27	I [mA] = (Ux2.13) – 11.08	I [mA] = (Ux0.74) – 3.17	I [mA] = (Ux0.245) – 0.75	I [mA] = (Ux4) – 17

CLAMPS/CONNECTION BLOCK

Connector	Plug connector to industrial form B; electrical connections 1=GND; 2=signal



CIRCUIT SYMBOL



DIMENSIONS

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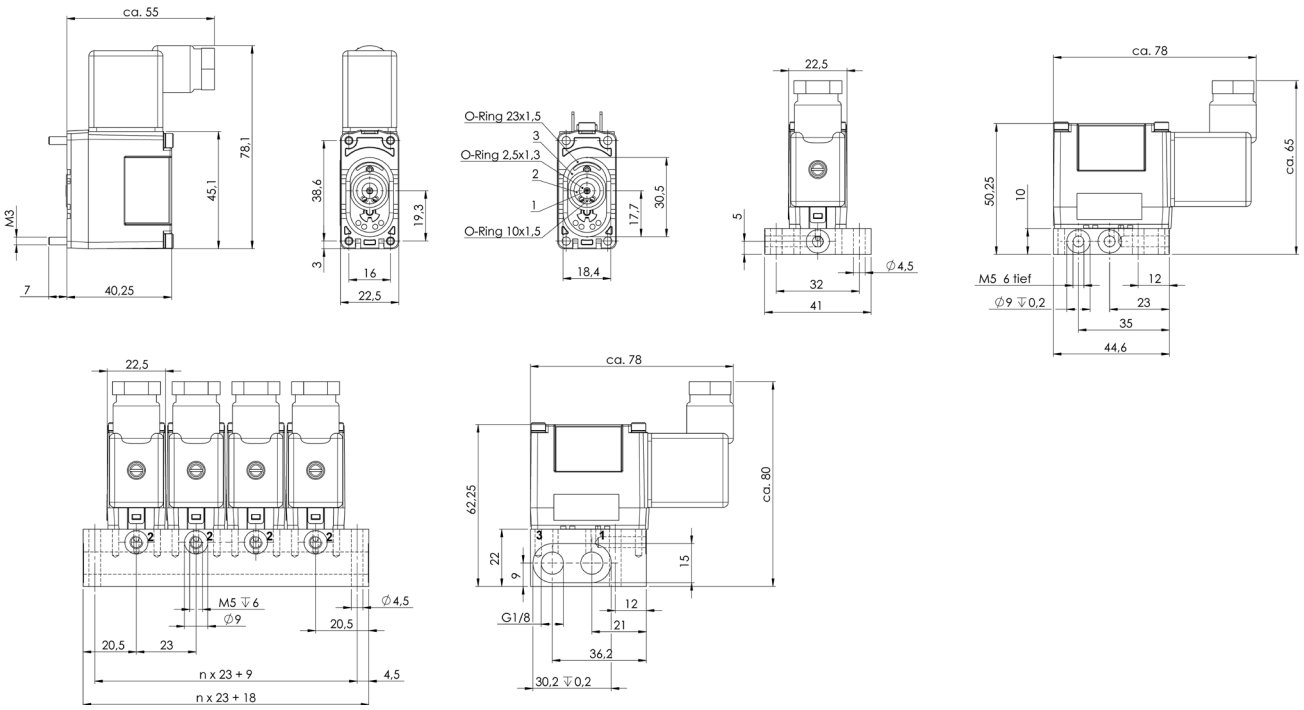
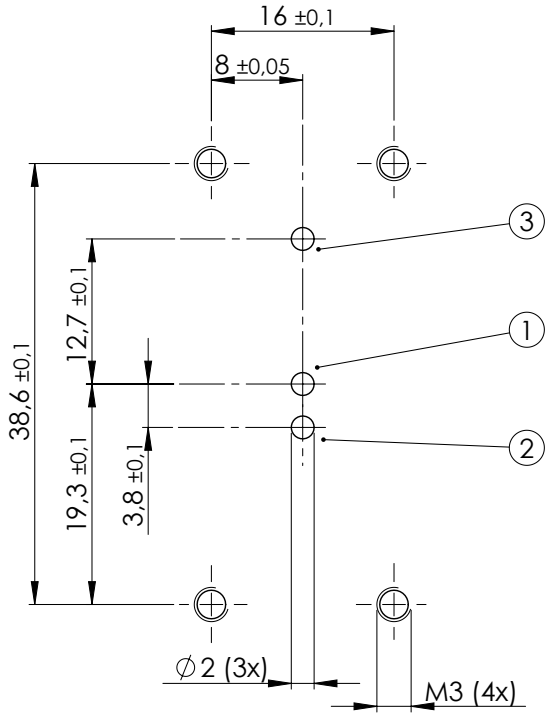
DIMENSIONS



DETAIL FLANGE CONNECTION



ACCESSORIES
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ACCESSORIES

		ORDER NO.
	Base plate, M5, 1-fold, aluminum	P08-385-A001
	Base plate, G1/8“, 2-fold, aluminum	P08-385-A002
	Blind plate complete, aluminum	P08-385-B001
	Appliance socket EN 175301-803 form B	P08-ANG-S001
	Connector with LED not for hazard area	On request

ORDER KEY

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TYPE NUMBER KEY

		1	2		3			4
TYPE NUMBER	**P 0 8**	**0**	**x x**	**–**	**x x**	**0 A**	**–**	**x x x**
Example	P 0 8	0	4 8	–	6 4	0 A	–	0 B 2

1 Device type

0	Pilot

2 Valve type

48	NG

3 Type of electronic

61	PN61 = 7 – 30 V DC
63	PT63 = 5,5 – 9 V DC
64	PM64 = 6 – 16 V DC
65	PN65 = 11 – 30 V DC
67	PT67 = 4,5 – 9 V DC

4 Number of valves*

000	Without base plate
0B1	With base plate M5
0B2	Manifold version G1/8“/M5 2-fold

*See accessories

CONVERSION FACTORS

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CONVERSION FACTORS

VALUE	UNIT	CONVERSION UNIT	FACTOR
Length	mm	in	0.03934
	in	mm	25.4
	m	ft	3.28084
	ft	m	0.3048
Weight	kg	lb	2.204622
	lb	kg	0.453592
Pressure	bar	psi	14.5035
	psi	bar	0.06895
	MPa	psi	145.035
	psi	MPa	0.006895
	bar	MPa	0.1
	MPa	bar	10
Temperature	°C	°F	1.8 °C + 32
	°F	°C	0.5556 °F – 32
Torque	Nm	ft/lbs	0.7375
	ft/lbs	Nm	1.3558

ADDITIONAL DOCUMENTATION

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WWW.HOERBIGER.COM

This data sheet and additional documentation is available in the download area of the company‘s website.

www.hoerbiger.com

NOTES

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