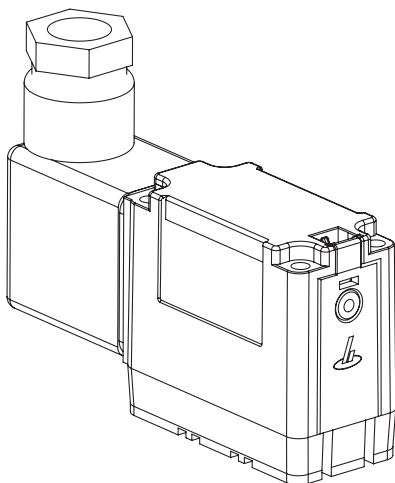


## P8 385

Piezo-controlled pneumatic valve  
for intrinsically safe applications

Technical Data

EN MET



## GENERAL AND PNEUMATIC PROPERTIES

P8 385

### GENERAL PROPERTIES

#### P8 385

Type	P8 385
Function	Switching, 3/2-way, normally closed, overlapping
Actuation type	Piezoelectric pilot
Constructive structure	Seat valve
Connection type	Flange <sup>1)</sup>
Weight	0.08 kg
Installation position	Any
Protection type	IP65 (DIN EN 60529 A1: 2000) <sup>2)</sup>
Storage temperature	-40°C to +80°C
Ambient temperature <sup>3)</sup>	-25 to +60°C
Medium temperature <sup>3)</sup>	-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

<sup>1)</sup> Base plates for threaded connection see accessories

<sup>2)</sup> With mounted connector plug and tight pneumatic connections

<sup>3)</sup> For use below the freezing point, dried air is required (pressure dew point 10 K below ambient or medium temperature).

### GENERAL PNEUMATIC PROPERTIES

Media <sup>4)</sup>	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

<sup>4)</sup> Other media only after approval by the manufacturer

### PNEUMATIC PROPERTIES

Nominal pressure ( $p_N$ )	6 bar
Input pressure min ( $p_{1_{min}}$ )	1.5 bar
Input pressure max ( $p_{1_{max}}$ )	8 bar
Nominal flow rate 1 to 2 ( $Q_N$ ) <sup>5)</sup>	> 50 l/min

<sup>5)</sup> Measured at  $p_1$  = nominal pressure and pressure drop 1 bar

# ELECTRICAL PROPERTIES

P8 385

## ELECTRICAL PROPERTIES

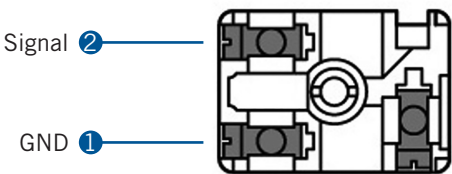
ELECTRONIC TYPE	PT63	PM64	PN61	PN65	PT67
Rel. duty cycle	100% within maximal duty time of 6000 h permanent operation				
Electrical connection	DIN EN 175301-803-B				
Nominal voltage (U <sub>N</sub> )	9 V DC	16 V DC	30 V DC	30 V DC	9 V DC
Switching voltage ON (U <sub>on</sub> )	5.5 to 9 V DC	6 to 16 V DC	7 to 30 V DC	11 to 30 V DC	4.5 to 9 V DC
Switching voltage OFF (U <sub>off</sub> )	1 V DC				
Holding current ON (I <sub>on</sub> )	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 <sub>off</sub> )	0.05 mA	0.1 mA	0.22 mA	0.1 mA	0.05 mA
Power consumption min (P <sub>min</sub> )	5.5 mW	10 mW	14 mW	22 mW	4.5 mW
Power consumption max (P <sub>max</sub> )	171 mW	368 mW	571 mW	198 mW	171 mW
Safety data according to EU type test certificate					
Voltage (U <sub>i</sub> )	9 V DC	16 V DC	30 V DC	30 V DC	9 V DC
Current (I <sub>i</sub> )	Not relevant				
External capacitance (C <sub>i</sub> )	12 nF				
External inductance (L <sub>i</sub> )	Negligible				

## FORMULA TO CALCULATE THE ELECTRIC CURRENT

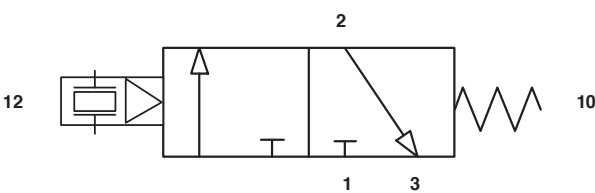
PT63	PM64	PN61	PN65	PT67
I [mA] = (Ux5.14) – 27.27	I [mA] = (Ux2.13) – 11.08	I [mA] = (Ux0.74) – 3.17	I [mA] = (Ux0.245) – 0.75	I [mA] = (Ux4) – 17

## CLAMPS/CONNECTION BLOCK

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



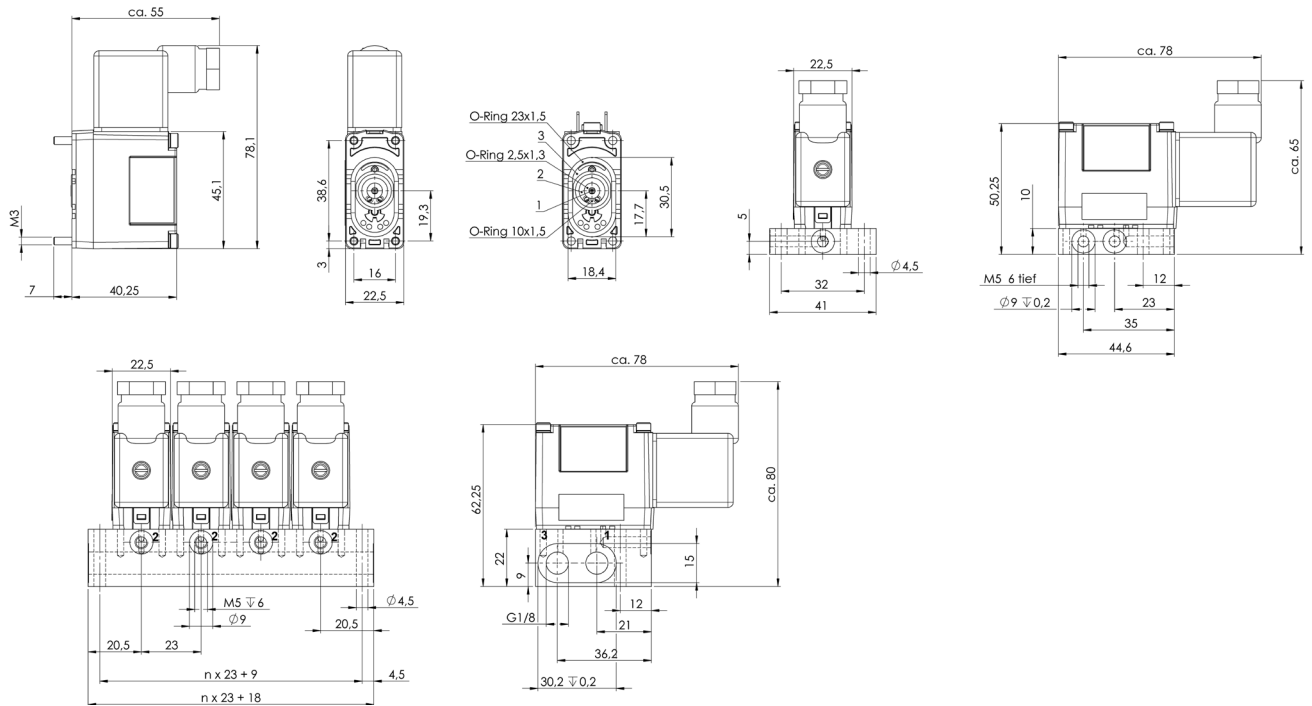
## CIRCUIT SYMBOL



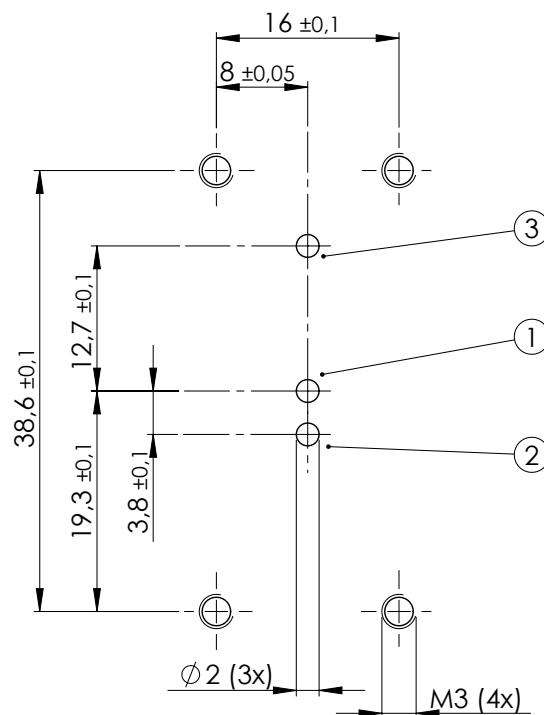
# DIMENSIONS

P8 385

## DIMENSIONS



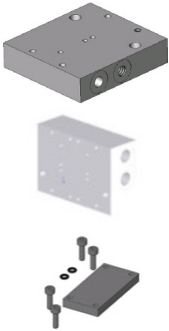
## DETAIL FLANGE CONNECTION



# ACCESSORIES

P8 385

## 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

P8 385

### 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

P8 385

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

P8 385

[WWW.HOERBIGER.COM](http://WWW.HOERBIGER.COM)

---

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



---

[www.hoerbiger.com](http://www.hoerbiger.com)



## NOTES

P8 385

This image shows a single sheet of white paper with horizontal blue ruling lines. The lines are evenly spaced and run across the width of the page. There are no margins, text, or other markings on the paper.

**HOERBIGER Flow Control GmbH**

Südliche Römerstraße 15

86972 Altenstadt, Germany

Tel. +49 (0)8861 221-0

Fax +49 (0)8861 221-1305

E-Mail: [flowcontrol@hoerbiger.com](mailto:flowcontrol@hoerbiger.com)

[www.hoerbiger.com](http://www.hoerbiger.com)



**TECHNICAL DATA AND ILLUSTRATIONS** The technical data and figures were compiled with great care and to the best of our knowledge. HOERBIGER accepts no liability for the currentness, correctness and completeness of this information. The content of this catalog shall not be construed as a quotation in the legal sense. A written order confirmation from HOERBIGER, which is provided exclusively subject to HOERBIGER's General Sales and Delivery Terms and Conditions, shall be decisive for the execution of the contract. You can obtain these from our Sales Department or from our website at: [www.hoerbiger.com](http://www.hoerbiger.com). The data and information, such as figures, drawings, descriptions, dimensions, weights, materials, technical and other deliverables contained in general product descriptions, HOERBIGER catalogs, brochures and price lists in any form, as well as the described products and services are subject to change and may be amended or updated at any time without prior announcement by HOERBIGER. They are binding only to the extent that they are expressly referenced in the contract or the order confirmation. Minor deviations from such product-describing information shall be deemed accepted and do not affect the performance of contracts, to the extent they are within reason for the customer. This catalog contains no express or implied guarantees, warranted qualities, or representations and warranties whatsoever on the part of HOERBIGER for the represented products, also with regard to the availability of the products. To the extent it is allowed by law, any liability on the part of HOERBIGER is hereby excluded for direct or indirect damage, consequential damage, claims regardless of type and on whatever legal grounds, which are caused by the use of information contained in this catalog. The liability disclaimer shall not apply to deceit, intent or gross negligence, injury to life, limb or health, or where unlimited liability is prescribed by law. Trademark, copyright and duplication The representation of industrial property rights such as brands, logos, registered trademarks or patents in this catalog shall not be construed to include the granting of licenses or rights of use. Their use is not permitted without the express written consent of HOERBIGER. The entire content of this catalog is the intellectual property of HOERBIGER. As defined by copyright, any unlawful use of intellectual property, including in extracts, is prohibited. Any full or partial reproduction, duplication or translation is only permitted with the prior written consent of HOERBIGER.