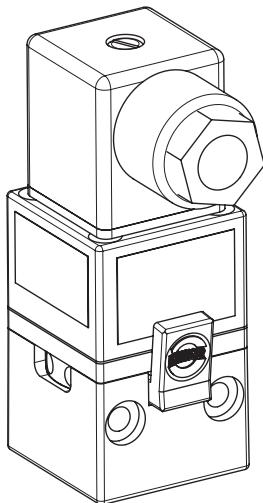


P20

Piezo-controlled pneumatic valve
for intrinsically safe applications

EN MET

Technical Data



GENERAL PROPERTIES

P20

GENERAL PROPERTIES

Type	P20
Function	Switching 3/2-way NC overlapping
Actuation type	Piezoelectric pilot
Constructive structure	Poppet Valve
Manual override	Tactile; snapping
Connection type	Flange according to CNOMO ¹⁾
Weight	0.100 kg ²⁾
Installation position	Any
Protection type	IP 54 (DIN EN 60529 A1: 2000) ³⁾
Storage temperature	-40 °C to +80 °C
Ambient temperature ⁴⁾	-10 °C to +60 °C
Medium temperature ⁴⁾	-10 °C to +60 °C
Rel. humidity	10 to 95 % (without condensation)
Material	Anodized aluminum, brass, spring steel, plastic, elastomer, NBR, ARCAP
Behavior in case of energy failure	Port 2 venting
RoHS-Conformity	RoHS 2011/65/EU

¹⁾ Base plates for threaded connection see accessories

²⁾ Optional with adapter plate (+0.06 kg)

³⁾ With mounted connector plug and tight pneumatic connections

⁴⁾ For use below the freezing point, dried air is required (pressure dew point 10 K below ambient or medium temperature).

GENERAL PNEUMATIC PROPERTIES

Media ⁵⁾	Compressed air and neutral gases
Media quality	According to ISO 8573-1:2010 (3;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 2G Ex ia IIC T4/T5/T6 Gb Dust: II 2D Ex ia IIIB T125°C Db

⁵⁾ 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) ⁶⁾	> 110 l/min

⁶⁾ Measured at p₁ = nominal pressure and pressure drop 1 bar

ELECTRICAL PROPERTIES

P20

ELECTRICAL PROPERTIES

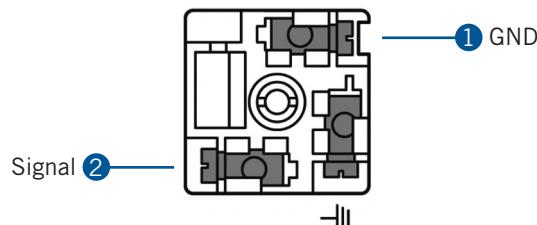
	PT63	PM64	PN61
Nominal voltage (U_N)	9 V DC	16 V DC	30 V DC
Switching voltage ON (U_{on})	5.5 to 9 V DC	6 to 16 V DC	7 to 30 V DC
Switching voltage OFF U_{off})		1 V DC	
Holding current ON (I_{on})	1 to 19 mA	1.7 to 23 mA	2 to 19 mA
Holding current OFF (I_{off})	0.05 mA	0.1 mA	0.22 mA
Power consumption min (P_{min})	5.5 mW	10 mW	14 mW
Power consumption max (P_{max})	171 mW	368 mW	571 mW
Safety data according to EU type test certificate			
Voltage (U_i)	9 V DC	16 V DC	30 V DC
Current (I_i)		Not relevant	
External capacitance (C_i)		12 nF	
External inductance (L_i)		Negligible	

FORMULA TO CALCULATE THE ELECTRIC CURRENT

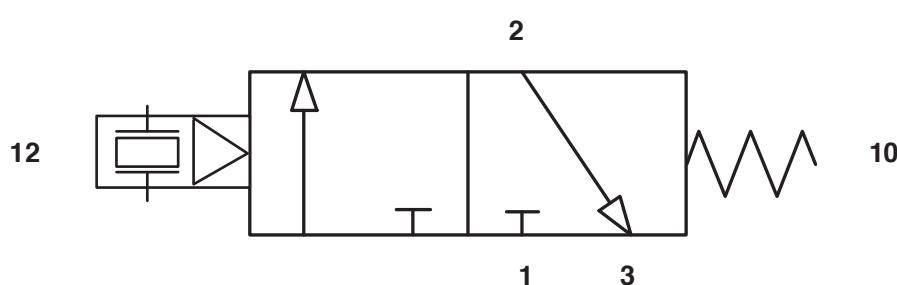
PT63	PM64	PN61
$I = (U \times 5.14) - 27.27$	$I = (U \times 2.13) - 11.08$	$I = (U \times 0.74) - 3.17$

CLAMPS/CONNECTION BLOCK

Connector	Plug connector acc. to DIN EN175301-803A; electrical connections 1=GND; 2=Signal
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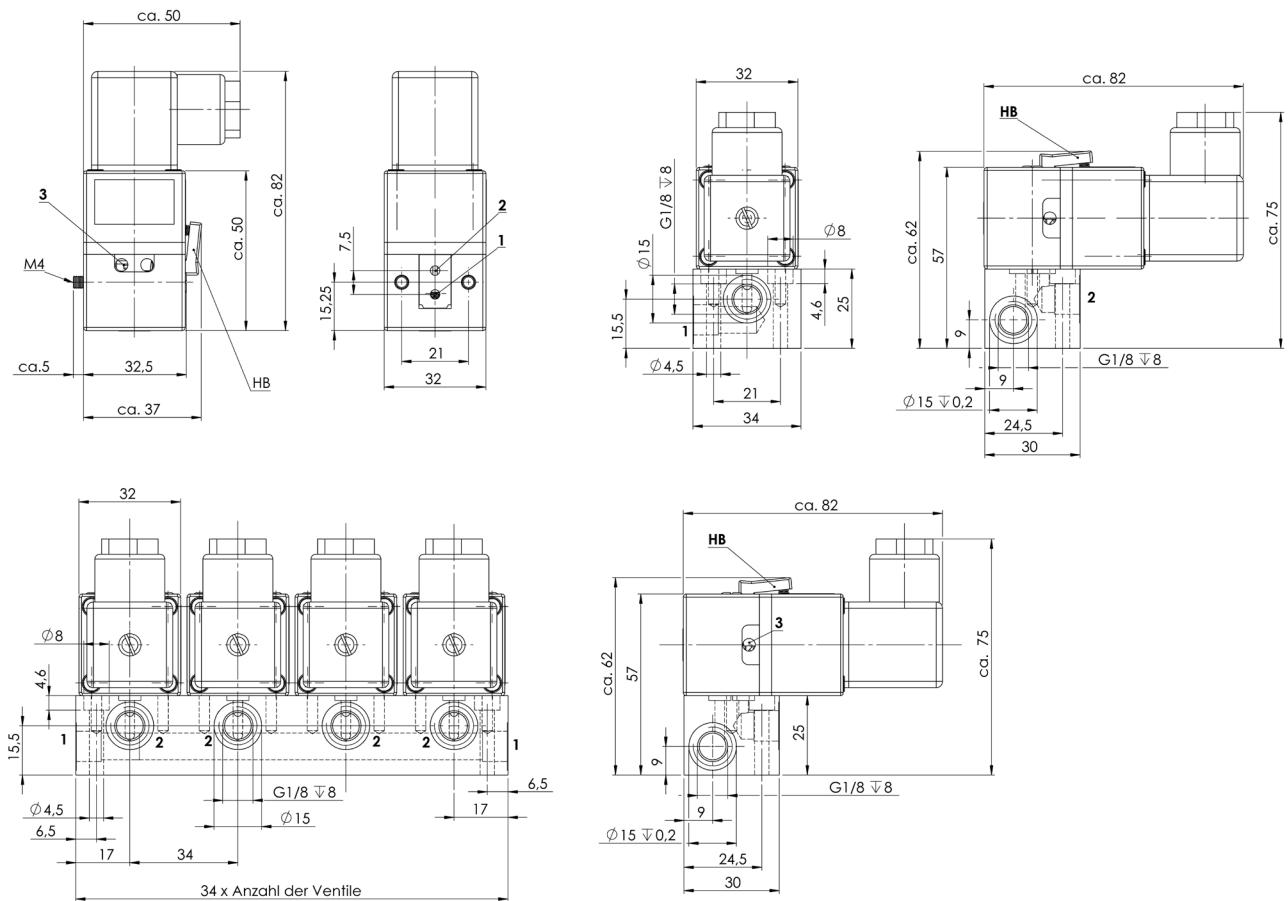
CIRCUIT SYMBOL



DIMENSIONS

P20

DIMENSIONS

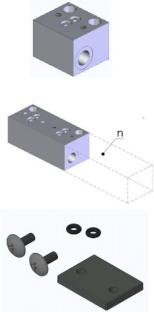


ACCESSORIES

P20

ACCESSORIES

ORDER NO.



	ORDER NO.
Base plate, G1/8“, 1-fold, aluminum	P20-ANG-A001
Base plate, G1/8“, 2-fold, aluminum	P20-ANG-A002
Blind plate complete, aluminum	P20-000-B001
Replacement connector	P20-ANG-S001

ORDER KEY

P20

TYPE NUMBER KEY

TYPE NUMBER	1		2		3		4								
	P	2	0	0	x	x	0	A	-	x	x	x			
Example	P	2	0	0	2	1	-	6	4	1	A	-	0	B	2
1 Device type															
0	Pilot														
2 Valve type															
21	NC														
3 Type of electronic															
61	PN61 = 7 – 30 V DC														
63	PT63 = 5,5 – 9 V DC														
64	PM64 = 6 – 16 V DC														
4 Number of valves*															
000	Without base plate														
OB1	With base plate														
OB2	Manifold version G1/8" 2-fold														

*See accessories

CONVERSION FACTORS

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CONVERSION FACTORS

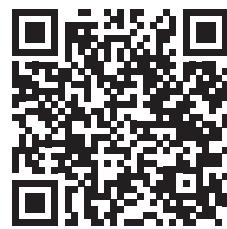
VALUE	UNIT	CONVERSION UNIT	FACTOR
Length	mm	in	0.03934
	in	mm	25.4
	m	ft	3.28084
	ft	m	0.3048
Weight	kg	lb	2.204622
	lb	kg	0.453592
Pressure	bar	psi	14.5035
	psi	bar	0.06895
	MPa	psi	145.035
	psi	MPa	0.006895
	bar	MPa	0.1
	MPa	bar	10
Temperature	°C	°F	1.8 °C + 32
	°F	°C	0.5556 °F – 32
Torque	Nm	ft/lbs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

ADDITIONAL DOCUMENTATION

P20

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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