

Directional Valves – intrinsically safe, piezo electrically actuated, Series P8, P20

Characteristics

Series P8 – NW1.6 and M5, P20 – NW 2.0 and G1/8

Characteristics	Symbol	Unit	Series P8 NW 1.6 and M5	Series P20 NW 2.0 and G1/8
Actuation			piezo electrical piloted	piezo electrical piloted
General Features				
Type			Piezo poppet valve, some overlap	Piezo poppet valve, some overlap
Mounting			Flange (see dimensional drawing)	Flange to CNOMO (see dimensional drawing)
Tube connection			Flange / Thread	Flange / Thread
Thread			M5 – with base plate	G1/8 – with base plate
Weight		kg	0.050 (pilot valve)	0.080 (pilot valve)
Flow direction			ON: from 1 to 2 OFF: from 2 to 3	ON: from 1 to 2 OFF: from 2 to 3
Installation			In any position	In any position
Ambient temperature range (1)	$\vartheta_{\min. / \max.}$	°C	-10 to +60	-10 to +60
Medium temperature range (1)	$\vartheta_{\min. / \max.}$	°C	-10 to +60	-10 to +60
Medium			Filtered air (30 μ), nor or minimal oil mist lubrication (max.30mg/m ³) (we recommend the use of mineral oil type VG 32 to ISO 3448)	
Pneumatic Characteristics				
Nominal pressure	$p_{\min. / \max.}$	bar	6	6
Operating pressure range	$p_{\min. / \max.}$	bar	1.2 – 8	1.2 – 8
Nominal flow	Q_N	l/min	50 b = 0,34; C = 12,5 l/min bar)	110 b = 0.33; C = 26.5 l/min bar)
Nominal size		mm	1.6	2.0

Piezo Electrical Actuation

Approval			EU type test certificate DMT 01 ATEX E 025 X / DMT 01 ATEX E 026 X		
Category, type of protection			II 1G EEx ia IIC T4/T5/T6		
HOERBIGER Code			PT	PM	PN
Voltage			DC	DC	DC
Switching voltage	$U_{„on“}$	V/DC	5.5 – 9	6 – 16	7 – 30
	$U_{„off“max*}$	V/DC	1	1	1
Current	$I_{„on“}$	mA	1 – 19	1.7 – 23	2 – 19
	$I_{„off“max*}$	mA	0.05	0.1	0.22
Connection			Plug to DIN 43650A / Plug to DIN 43650B		
Safety data according to EU type test certificate					
Voltage	U_i	V	9	16	30
Current	I_i	mA	–	–	–
External capacitance	C_i	nF	12	12	12
External inductance	L_i	nH	–	–	–

(1) Note: When using below freezing point please contact our technical department.

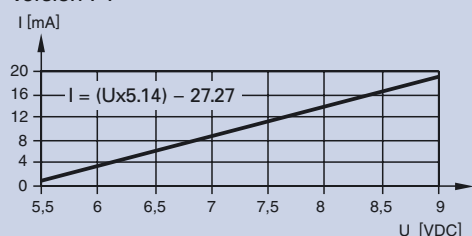
* Broken wire detection

Not suitable as a safety valve

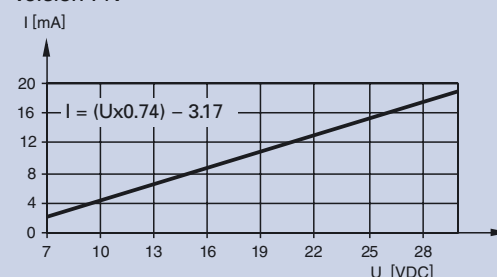
No solenoid characteristic, switch on time proof to 90 days, endurance test on going, complete February 2003

I/U – Diagram (I_{on} vs. U_{on})

Version PT



Version PN



Version PM

