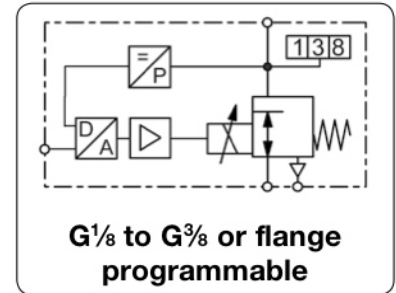


# PD - Contrôleur de pression proportionnelle, programmable RS232, avec afficheur, paramètres PID programmables

<b>Description</b>	The proportional pressure regulator is digitally controlled and works as a 3/2 valve with proportional magnet and closed loop. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software.
<b>Software</b>	Display: signal, outlet pressure, PID parameters, pressure switch signal etc. Scope function: view setpoint, outlet pressure, internal signals from PID control
<b>Parameters</b>	command signal, zero point, overload threshold, ramp Valve diagnosis: parameters factory-set or customised, optimization of the valve.

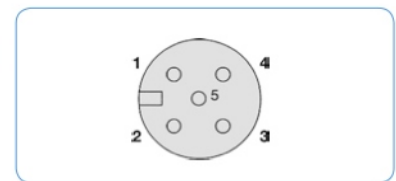


## General technical features

<b>Description</b>	3-port/2-way valve with proportional magnet and digital control
<b>Mounting position</b>	any, preferably upright
<b>Protection class</b>	IP65 with mounted coupling socket
<b>Temperature range</b>	0 °C to 50 °C / 32 °F to 122 °F ambient
<b>Material</b>	Body: aluminium      Inner valve: POM (Polyacetal) Elastomer: NBR/Buna N and FPM

## Pneumatic features

<b>Media</b>	dry, lubricated or unlubricated and 50 µm filtered compressed air or non-corrosive gases
<b>Supply pressure</b>	see chart
<b>Flow rate</b>	see chart, at 7 bar supply pressure and open outlet
<b>Exhaust</b>	same nominal size as on inlet valve, thus same relief capacity
<b>Air consumption</b>	without air consumption



## Electrical features

<b>Supply voltage</b>	24 V DC ± 10%
<b>Electrical connection</b>	M12x1, 5-pin plug, with coupling socket
<b>Power consumption</b>	12 W at nominal size 4, 40 W at nominal size 8
<b>Current consumption</b>	850 mA at nominal size 4, 1640 mA at nominal size 8
<b>Command signal</b>	0-10 V, 0-20 mA, 4-20 mA
<b>Impedance</b>	100 kΩ at voltage signal (0.1 mA current consumption) 500 Ω at current signal
<b>Feedback output</b>	0-10 V = 3 bar only, 6 bar and 10 bar pressure range possible

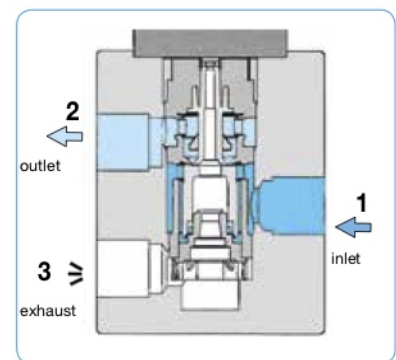
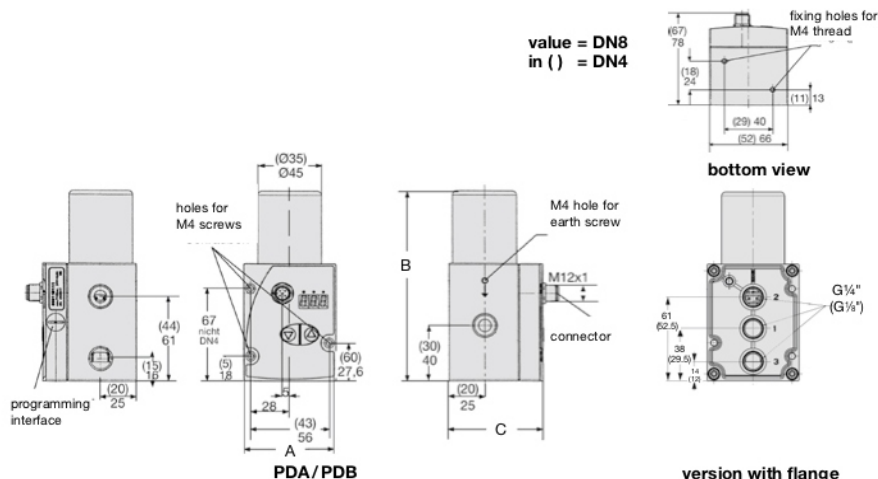
pin	description	5-wire cable (2m)
1	24 V supply voltage	brown
2	analog input signal	white
3	supply ground	blue
	analog ground	
4	analog outlet signal	black
5	digital pressure switch signal	grey
housing	EMC shield	shield

## Accuracy

<b>Linearity/Hysteresis</b>	< 1,0% FS	<b>Response sensitivity</b>	< 0,5% FS
<b>Repeatability</b>	< 0,5% FS	<b>Minimum setpoint</b>	100 mV (0.2 mA / 4.2 mA)
<b>Minimum outlet pressure</b>	1% FS	<b>Over all accuracy</b>	± 0,5% FS

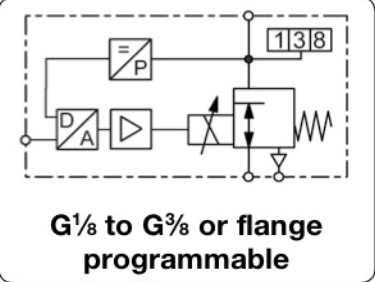
## Adjustment and parameter settings

<b>Zero point / range</b>	Zero point and range can be calibrated percentagewise.
<b>Control mode / Amplification</b>	Through the software different control modes may be chosen. All parameters of P/PI/PID controllers can be tuned.
<b>Diagnosis</b>	A diagnostic tool including data recording is available within the software.
<b>Characteristic curve</b>	Increasing or decreasing curve can be set (increasing by standard).



# PD - Contrôleur de pression proportionnelle, programmable RS232, avec afficheur, paramètres PID programmables

<b>Description</b>	The proportional pressure regulator is digitally controlled and works as a 3/2 valve with proportional magnet and closed loop. The digital control system offers advantages at installation and commissioning for adapting the valve to special applications. The regulator can be set and optimised using a PC, RS232 adapter and software.		
<b>Media</b>	dry, lubricated, unlubricated and 50 µm filtered compressed air or non-corrosive gases		
<b>Supply voltage</b>	24 V DC ± 10 V, residual ripple < 10%		
<b>Signal range</b>	0-10 V, 100 kΩ impedance, 0/4-20 mA, 250 Ω impedance		
<b>Electrical connection</b>	plug M12x1, 5-pin, with coupling socket	<b>Pressure switch</b>	PNP, adjustable ± 5% from setpoint
<b>Power consumption</b>	21 W at DN4, 40 W at DN8		
<b>Linearity/Hysteresis</b>	< 0.5% FS / < 1% FS		
<b>Mounting position</b>	any		
<b>Temperature range</b>	fluid: 0 °C to 60 °C / 32 °F to 140 °F ambient: 0 °C to 50 °C / 32 °F to 122 °F		
<b>Material</b>	Body: aluminium	Elastomer: NBR/Buna-N	Inner valve: POM
<b>Repeatability</b>	< 0.5% FS		
<b>Protection class</b>	IP65		



Dimensions			Nominal	Flow	Supply	Connection	Pressure	Order
A	B	C	size	rate	max.	thread	range	number
mm	mm	mm	DN	l/min*1	bar	G	bar	

Proportional pressure regulator						0-10 V input and outlet signal, supply 24 V DC, without display, with coupling socket		PD		
52	112	67	4	0.43	470	6	G <sup>1/8</sup>	0... 1	PDA41-010	
								0... 3	PDA41-030	
								0... 5	PDA41-050	
								0... 6	PDA41-060	
								0... 8	PDA41-080	
								0... 10	PDA41-100	
			13	13	13	6	G <sup>1/4</sup>	0... 1	PDA42-010	
									0... 3	PDA42-030
									0... 5	PDA42-050
									0... 6	PDA42-060
									0... 8	PDA42-080
									0... 10	PDA42-100
66	138	78	8	1.2	1300	6	G <sup>1/4</sup>	0... 1	PDA82-010	
								0... 3	PDA82-030	
								0... 5	PDA82-050	
								0... 6	PDA82-060	
								0... 8	PDA82-080	
								0... 10	PDA82-100	
			13	13	13	6	G <sup>3/8</sup>	0... 1	PDA83-010	
									0... 3	PDA83-030
									0... 5	PDA83-050
									0... 6	PDA83-060
									0... 8	PDA83-080
									0... 10	PDA83-100
								0... 12	PDA83-120	



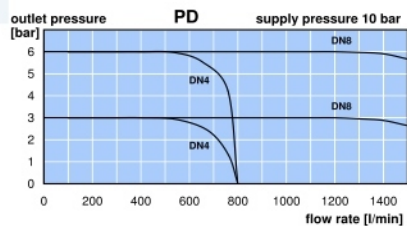
**Special options, add the appropriate letter or number**

display	3-digit, red	PDB . . . . .
NPT	connection thread	PD . . . . . N
0-20 mA	setpoint input and monitor signal	PD . . . . . 1
4-20 mA	setpoint input and monitor signal	PD . . . . . 2
flange version		PD . . F . . . .
cascade regulation	w/o monitor signal 2. sensor, electr. feedback 0-10 V	PD . . . . . KU
	w/o monitor signal 2. sensor, electr. feedback 4-20 mA	PD . . . . . KI

for PDA41/82

**Accessories, enclosed**

<b>RS232 module</b>	with D-sub plug and with USB plug and	2 m cable	<b>PDRS232</b>
	basic version "light"	2 m cable	<b>PDUSB</b>
<b>software</b>			<b>PDSOFT1</b>
<b>coupling socket</b>	M12x1, 5-pin, with	2 m cable, 5 x 0.25 angular	<b>KM12-C5-2</b>
		5 m cable, 5 x 0.25 angular	<b>KM12-C5-5</b>



\*1 at 6 bar supply pressure and 5 bar outlet pressure

