

# Proportional pressure regulators MPPES


Technical data

Operating and environmental conditions				
Pressure regulation range	[bar]	0 ... 2	0 ... 6	0 ... 10
Operating medium		Compressed air in accordance with ISO 8573-1:2010 [7:4:4] Inert gases		
Note on operating/pilot medium		Operation with lubricated medium possible (in which case lubricated operation will always be required)		
Supply pressure 1	[bar]	3 ... 4	7 ... 8	11 ... 12
Max. pressure hysteresis	1/8"	[mbar]	10	
	1/4"	[mbar]	50	
	1/2"	[mbar]	50	
Ambient temperature	[°C]	0 ... 50		
Temperature of medium	[°C]	0 ... 60		
Corrosion resistance class CRC		2 <sup>1)</sup>		

1) Corrosion resistance class 2 according to Festo standard 940 070  
Components subject to moderate corrosion stress. Externally visible parts with primarily decorative surface requirements which are in direct contact with a normal industrial environment or media such as coolants or lubricating agents.

Electrical data				
Pressure regulation range	[bar]	0 ... 2	0 ... 6	0 ... 10
Electrical connection		Plug, round design to DIN 45 326, M16 x 0.75, 8-pin		
Operating voltage range	$U_B$	[V DC]	18 ... 30	
Residual ripple		10%		
Power consumption	$P_{max.}$	[W]	20 (at 30 V DC), IEC/EN 61984	
Setpoint input signal	Voltage	$V_w$	[V DC]	0 ... 10
	Current	$I_w$	[mA]	4 ... 20
Actual value output signal	Voltage	$V_x$	[V DC]	0 ... 10
	Current	$I_x$	[mA]	4 ... 20
Protection class to DIN 60 529		IP65 (with connection socket)		
Safety note		Output pressure is not maintained if the power supply cable is interrupted		
Reverse polarity protection	Setpoint input, voltage signal 0 ... 10 V	For all electrical connections		
	Setpoint input, current signal 4 ... 20 mA	For operating voltage		
Protection against short circuit		Yes, for the types with voltage signal as setpoint input		

Materials	
Housing	Wrought aluminium alloy
Seals	NBR

 Note  
The working line is vented if the power supply cable is interrupted.

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**Dimensions** Download CAD data → [www.festo.com](http://www.festo.com)

MPPES-3-1/8-...      MPPES-3-1/4-...  
MPPES-3-1/2-...

Connection D1	B	B1	∅D	H	H1	H2	H3	H4	H5	H6	L	L1
G1/8	77.1	67.1	4.4	116.5	100	55	34	45	23	4	62	34
G1/4	82.1	72.1	4.5	170.2	153.7	63.7	25.3	34.8	13.8	5	62	30
G1/2	96.1	86.1	7	227.1	210.6	120.6	53	74	32	18	86	50

**Connections**

Pin allocation

1	WH	n.c.
2	BN	GND
3	GN	GND
4	YE	W <sub>in</sub> (setpoint input)
5	GY	n.c.
6	PK	X <sub>out</sub> (actual value output)
7	RD	24 V DC (supply voltage)
8	BU	GND

**Switching function**

MPPES-3-1/8-...      MPPES-3-1/4-.../MPPES-3-1/2-...

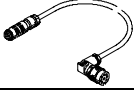


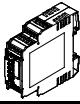
**Ordering data**

Pneumatic connection	Pressure regulation range [bar]	Voltage type 0 ... 10 V		Current type 4 ... 20 mA	
		Part No.	Type	Part No.	Type
<b>Basic version</b>					
G1/8	0 ... 2	187350	MPPES-3-1/8-2-010	187351	MPPES-3-1/8-2-420
	0 ... 6	187352	MPPES-3-1/8-6-010	187353	MPPES-3-1/8-6-420
	0 ... 10	187348	MPPES-3-1/8-10-010	187349	MPPES-3-1/8-10-420
G1/4	0 ... 2	187335	MPPES-3-1/4-2-010	187336	MPPES-3-1/4-2-420
	0 ... 6	187337	MPPES-3-1/4-6-010	187338	MPPES-3-1/4-6-420
	0 ... 10	187333	MPPES-3-1/4-10-010	187334	MPPES-3-1/4-10-420
G1/2	0 ... 2	187328	MPPES-3-1/2-2-010	187329	MPPES-3-1/2-2-420
	0 ... 6	187330	MPPES-3-1/2-6-010	187331	MPPES-3-1/2-6-420
	0 ... 10	187326	MPPES-3-1/2-10-010	187327	MPPES-3-1/2-10-420
<b>Special adaptation type<sup>1)</sup></b>					
G1/8	0 ... 10	187347	MPPES-3-1/8-PU-PO-010	187762	MPPES-3-1/8-PU-PO-420
G1/4	0 ... 10	187339	MPPES-3-1/4-PU-PO-010	187744	MPPES-3-1/4-PU-PO-420
G1/2	0 ... 10	187332	MPPES-3-1/2-PU-PO-010	187735	MPPES-3-1/2-PU-PO-420

1) The special adaptation type allows a lower pressure PU to be assigned to the setpoint 0 V or 4 mA and an upper pressure PO to be assigned to the setpoint 10 V or 20 mA. PU and PO by customer request.

# Proportional pressure regulators MPPE/MPPES

Accessories

Ordering data				
	Description	Cable length [m]	Part No.	Type
Connecting cable <span style="float: right;">Technical data → Internet: kvia-mppe</span>				
	Connecting cable to the analogue module of valve terminal type 03/04	5	163882	KVIA-MPPE-5
		10	163883	KVIA-MPPE-10
Plug socket with cable <span style="float: right;">Technical data → Internet: kmppe-b</span>				
	Angled, 8-pin, M16x0.75	2.5	161879	KMPPE-B-2,5
		5	161878	KMPPE-B-5
Angled socket <span style="float: right;">Technical data → Internet: mppe</span>				
	Angled, 8-pin, M16x0.75	–	161839	MPPE-3-B
Setpoint module <span style="float: right;">Technical data → Internet: mpz</span>				
	Setpoint module for generating 6 + 1 analogue voltage signals	–	546224	MPZ-1-24DC-SGH-6-SW