

# Proportional pressure control valve VPPE-3-1-1/8-6-420-E1-F1A

FESTO

Part number: 8156423



## Data sheet

Feature	Value
Nominal width pressurization	5 mm
Exhaust nominal width	2.5 mm
Variants	Metals with copper, zinc or nickel by mass as main constituent are excluded from use. Exceptions are nickel in steel, chemically nickel-plated surfaces, printed circuit boards, cables, electrical plug connectors and coils.
Actuation type	Electrical
Sealing principle	Soft
Mounting position	Any Preferably upright
Structural design	Pilot-controlled diaphragm regulator
Short-circuit protection	For all electrical connections
Safety instructions	VPPE safety position: if the supply cable breaks, the outlet pressure is maintained in uncontrolled form.
Reverse polarity protection	for all electrical connections
Reset method	Mechanical spring
Type of control	Pilot-controlled
Valve function	3-way proportional pressure control valve
Display type	LED display 3-digit
Pressure regulation range MPa	0.006 MPa...0.6 MPa
Pressure regulation range	0.06 bar...6 bar
Inlet pressure 1	6 bar...8 bar
Inlet pressure 1 MPa	0.6 MPa...0.8 MPa
Max. pressure hysteresis	0.003 MPa 0.03 bar 0.435 psi
Standard nominal flow rate	800 l/min
DC operating voltage range	21.6 V...26.4 V
Max. current consumption	160 mA
Duty cycle	100%
Max. electrical power consumption	4.2 W
Residual ripple	10 %
Switching output	PNP

Feature	Value
Analog output signal range	4 - 20 mA
Analog input signal range	4 - 20 mA
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4] Inert gas
Information on operating and pilot media	Operation with oil lubrication not possible
Certification	RCM compliance mark c UL us - Listed (OL)
KC characters	KC EMC
CE marking (see declaration of conformity)	As per EU EMC directive As per EU RoHS directive
UKCA marking (see declaration of conformity)	To UK instructions for EMC To UK RoHS instructions
Certificate issuing authority	UL E322346
Corrosion resistance class (CRC)	2 - Moderate corrosion stress
LABS (PWIS) conformity	VDMA24364-B2-L
Suitability for the production of Li-ion batteries	Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils
Cleanroom class	Class 4 according to ISO 14644-1
Temperature of medium	10 °C...50 °C
Degree of protection	IP65
Ambient temperature	0 °C...60 °C
Product weight	390 g
Linearity	1 %FS
Hysteresis	0.5 %FS
Reproducibility	0.5 %FS
Overall accuracy	1.25 %FS
Temperature coefficient	0.04 %/K
Electrical connection	5-pin M12 Plug
Type of mounting	With through-hole
Pneumatic connection 1	G1/8
Pneumatic connection 2	G1/8
Pneumatic connection 3	G1/8
Note on materials	RoHS-compliant
Housing material	Aluminum, powder-coated