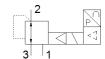
proportional pressure regulator VPPE-3-1-1/8-10-010-E1-F1A Part number: 8156420







Data sheet

Nominal diameter, exhaust Variants Recommended for production facilities for the manufacture of lithium- ion batteries lob batteries lob batteries los detution electrical Sealing principle Assembly position Preferably upright Design structure Pilot actuated diaphragm regulator Short circuit strength Short circuit streng	Feature	Value
Variants Recommended for production facilities for the manufacture of lithium- Internation Internation	Nominal diameter, pressurisation	5 mm
Ion batteries Ion batteries	Nominal diameter, exhaust	2.5 mm
Sealing principle Assembly position Ary Preferably position Preferably position Preferably position Preferably position Preferably position Preferably upright Preferably upright Pressure is maintained unregulator Polarity protected Polarity protected Polarity protected Protec	Variants	·
Assembly position Perferably poright Design structure Pilot actuated diaphragm regulator for all electrical connections Safety instructions Polarity protected For all electrical connections Polarity protected For all electrical connections Type of preset Mechanical spring Type of piloting Piloted Polarity protected Type of display LED display LED display LED display Pressure regulation range MPa Pol. 1. 1 bar Liet pressure regulation range MPa Pol. 1. 1 bar Liet pressure 1 bar Liet pressure 1 bar Liet pressure shysteresis (MPa) Max. pressure hysteresis (MPa) Max. pressure hysteresis (MPa) Max. pressure hysteresis (MPa) Operating voltage range DC All 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2.	Type of actuation	electrical
Perferably upright Design structure Pilot actuated diaphragm regulator Short circuit strength For all electrical connections Safety instructions Polarity protected For all electrical connections Polarity protected For all electrical connections Pipe of reset Pipe of piloting Piloted Valve function Type of display Adigit Pressure regulation range MPa Perssure regulation range MPa Out 1 MPa Pressure regulation range MPa Out 1 MPa Pressure regulation range Inlet pressure 1 G 1 Daar Inlet pressure 1 G 1 Daar Inlet pressure 1 G 1 MPa Max. pressure 1 MPa Out 1 MPa Max. pressure 1 MPa Out 1 MPa Max. pressure hysteresis (MPa) Max. pressure hysteresis (MPa) Max. pressure hysteresis (MPa) Max. current consumption Durty cycle 100-% Max. current consumption Aux. current consumption Quetating pipe 10-% Switch output PNP Signal range, analogue output Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation CUL us - Listed (OL) KC mark CE mark (See declaration of conformity) To UK RoHS instructions Certificate issuing department UL 5232346 UL 523	Sealing principle	soft
Short circuit strength Safety instructions Safety position: If the power supply cable is interrupted, output pressure is maintained unregulated. Polarity protected for all electrical connections Type of reset mechanical spring Piloted Valve function 3-way proportional-pressure regulator Type of display 3-digit Pressure regulation range MPa 0.01 1 MPa Pressure regulation range MPa 0.01 1 MPa Pressure regulation range 0.1 1 Obar Intel pressure 1 6 11 bar Supply pressure 1 MPa 0.05 MPa Max. pressure hysteresis (MPa) 0.05 MPa Max. pressure hysteresis (MPa) 0.05 MPa Max. pressure hysteresis (MPa) 0.0725 psi Standard nominal flow rate 0.725 psi Standard nominal flow rate 1.250 //min Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output Signal range, analogue output 0-10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inner gases Note on operating and pilot medium Authorisation RCM Mark CUL us - Listed (OL) KC mark CE mark (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department UE 322346 UE 522346	Assembly position	
Safety instructions VPPE safety position: If the power supply cable is interrupted, output pressure is maintained unregulated. For all electrical connections Type of reset Type of piloting Piloted 3 -way proportional-pressure regulator Type of display Begin and the pressure regulation range MPa Pressure regulation range MPa Pressure regulation range Description and the pressure regulation range Description and the pressure of the pressure regulation range Description and the pressure of the pressure regulation range Description and the pressure of	Design structure	Pilot actuated diaphragm regulator
pressure is maintained unregulated. Polarity protected for all electrical connections Type of reset mechanical spring Type of piloting Piloted Valve function 3-way proportional-pressure regulator Type of display LED display LED display Jedigit Pressure regulation range MPa 0.01 1 MPa Pressure regulation range MPa 0.1 10 bar Inlet pressure 1 MPa 0.6 1.1 MPa Max. pressure bysteresis (MPa) 0.005 MPa Max. pressure hysteresis (MPa) 0.005 MPa Max. pressure hysteresis (MPa) 0.005 MPa Max. pressure hysteresis 0.05 bar 0.725 psi Standard nominal flow rate 1.250 l/min Operating voltage range DC 2.1.6 26.4 V Max. current consumption 160 MA Max. electrical power consumption 4.2 W Residual ripple 100 % Max. electrical power consumption 9-10 V Signal range, analogue output 0-10 V Signal range, analogue output 0-10 V Signal range, analogue input 0-10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark CUL us - Listed (OL) KC mark CE mark (see declaration of conformity) To UK instructions for EMC To UK Rows instructions Certificate issuing department ULE 522346	Short circuit strength	for all electrical connections
Type of piloting Type of piloting Piloted Valve function 3-way proportional-pressure regulator Type of display LED display 3-digit Pressure regulation range MPa O.01 1 MPa Pressure regulation range O.1 10 bar Inlet pressure 1 G 11 bar Supply pressure 1 MPa Max. pressure hysteresis (MPa) O.05 MPa Max. pressure hysteresis (MPa) O.0725 psi Standard nominal flow rate 1,2501/min Operating voltage range DC 16 26.4 V Max. current consumption Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output PNP Signal range, analogue output Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark CE mark (see declaration of conformity) To UK ROHS instructions Certificate issuing department ULE 322346 ULE 322346 ULE 322346	Safety instructions	
Type of piloting Valve function 3-way proportional-pressure regulator Type of display 3-digit Pressure regulation range MPa Pressure regulation range MPa 0.01 1 MPa Pressure regulation range 0.1 10 bar Inlet pressure 1 6 11 bar Supply pressure 1 MPa 0.6 1.1 MPa Max. pressure hysteresis (MPa) 0.005 MPa Max. pressure hysteresis (MPa) 0.005 MPa Max. pressure hysteresis 0.725 psi Standard nominal flow rate 0.725 psi Standard nominal flow rate 1,250 I/min Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output PNP Signal range, analogue output PNP Signal range, analogue input 0 - 10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation RCM Mark CUL us - Listed (OL) KC mark CE mark (see declaration of conformity) To UK neiths instructions Certificate issuing department UL 532346 UL 532346	Polarity protected	for all electrical connections
Valve function Type of display LED display 3-digit Pressure regulation range MPa 0.01 1 MPa Pressure regulation range MPa 0.1 10 bar Inlet pressure 1 6 11 bar Supply pressure 1 MPa 0.05 MPa 0.05 MPa 0.05 MPa 0.05 MPa 0.05 MPa 0.725 psi Standard nominal flow rate 0.725 psi Standard nominal flow rate 0.725 psi Standard nominal flow rate 0.726 Max. current consumption 0.160 mA 0.170 Max. electrical power consumption 160 mA 0.10 W 0.80 Mex. electrical power consumption 1.00	Type of reset	mechanical spring
Type of display LED display 3-digit Pressure regulation range MPa O.01 1 MPa O.1 10 bar Inlet pressure 1 Supply pressure 1 MPa O.6 1.1 MPa O.6 1.1 MPa O.6 1.1 MPa Max. pressure hysteresis (MPa) Max. pressure hysteresis O.05 MPa Max. pressure hysteresis O.05 bar O.725 psi Standard nominal flow rate O.725 psi Standard nominal flow rate Operating voltage range DC 10.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output Signal range, analogue output Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation RCM Mark CUL us - Listed (OL) KC mark CE mark (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Certificate issuing department UL £322346 UL £322346	Type of piloting	Piloted
3-digit	Valve function	3-way proportional-pressure regulator
Pressure regulation range Description of the pressure of th	Type of display	
Inlet pressure 1 Supply pressure 1 MPa O.6 1.1 MPa O.6 1.1 MPa O.005 MPa Max. pressure hysteresis (MPa) O.005 MPa Max. pressure hysteresis O.05 bar O.725 psi Standard nominal flow rate Operating voltage range DC 21.6 26.4 V Max. current consumption Detriction of the consumption Operating voltage range DC 100 % Max. electrical power consumption A.2 W Residual ripple 10 % Switch output Signal range, analogue output Signal range, analogue input Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation RCM Mark CL Emark CE mark (See declaration of conformity) To UK ROHS instructions GEMC To UK ROHS instructions Certificate issuing department UL 532346 CErtificate issuing department UL 532346	Pressure regulation range MPa	0.01 1 MPa
Supply pressure 1 MPa Max. pressure hysteresis (MPa) Max. pressure hysteresis O.05 bar O.725 psi Standard nominal flow rate 1,250 l/min Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output Signal range, analogue output Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] lnert gases Note on operating and pilot medium Authorisation RCM Mark C UL us - Listed (OL) KC mark CE mark (see declaration of conformity) Certificate issuing department ULE 322346 Certificate issuing department ULE 322346 O.05 MPa O.00	Pressure regulation range	0.1 10 bar
Max. pressure hysteresis (MPa) Max. pressure hysteresis 0.05 bar 0.725 psi Standard nominal flow rate 1,250 l/min Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output Signal range, analogue output O-10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation RCM Mark c UL us - Listed (OL) KC mark CE mark (see declaration of conformity) UKCA marking (see declaration of conformity) Certificate issuing department UL E322346 O.005 MPa 0.005 bar 0.725 psi 0.725 ps	Inlet pressure 1	6 11 bar
Max. pressure hysteresis 0.05 bar 0.725 psi Standard nominal flow rate 1,250 l/min Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output Signal range, analogue output Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Innert gases Note on operating and pilot medium Authorisation RCM Mark c UL us - Listed (OL) KC mark CE mark (see declaration of conformity) UKCA marking (see declaration of conformity) Certificate issuing department UL E322346 O.05 bar 0.725 psi	Supply pressure 1 MPa	0.6 1.1 MPa
Standard nominal flow rate 1,250 l/min Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output PNP Signal range, analogue output O - 10 V Signal range, analogue input O- 10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation RCM Mark c UL us - Listed (OL) KC mark CE mark (see declaration of conformity) UKCA marking (see declaration of conformity) Certificate issuing department UL E322346 O- 21.6 26.4 V At V Cenard (See Median (See	Max. pressure hysteresis (MPa)	0.005 MPa
Standard nominal flow rate Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple Switch output PNP Signal range, analogue output Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation RCM Mark CUL us - Listed (OL) KC mark CE mark (see declaration of conformity) UKCA marking (see declaration of conformity) Certificate issuing department 1,250 l/min 21.6 26.4 V 22.6 V 24.7 V 25.0 V 26. MA 27.0 V 28.0 V 28.0 V 29.0 V 29.0 V 20.0	Max. pressure hysteresis	- T
Operating voltage range DC 21.6 26.4 V Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output PNP Signal range, analogue output 0 - 10 V Signal range, analogue input 0 - 10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark c UIL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC TO UK RoHS instructions Certificate issuing department UL E322346	Standard nominal flow rate	·
Max. current consumption 160 mA Duty cycle 100 % Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output PNP Signal range, analogue output 0 - 10 V Signal range, analogue input 0 - 10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark c UL us - Listed (OL) KC mark CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU ROHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department UL E322346	Operating voltage range DC	
Duty cycle Max. electrical power consumption 4.2 W Residual ripple 10 % Switch output PNP Signal range, analogue output O-10 V Signal range, analogue input O-10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark c UL us - Listed (OL) KC mark CE mark (see declaration of conformity) UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department ULE 322346	· ·	160 mA
Max. electrical power consumption Residual ripple 10 % Switch output PNP Signal range, analogue output 0 - 10 V Signal range, analogue input 0 - 10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark c UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU RoHS directive To UK instructions for EMC To UK ROHS instructions Certificate issuing department UL E322346		100 %
Residual ripple 10 % Switch output PNP Signal range, analogue output 0-10 V Signal range, analogue input 0-10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark c UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU ROHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department UL E322346		4.2 W
Switch output Signal range, analogue output O - 10 V Signal range, analogue input O - 10 V Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible Authorisation RCM Mark c UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Certificate issuing department UL E322346		10 %
Signal range, analogue output Signal range, analogue input O-10 V Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible RCM Mark C UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU ROHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department UL E322346	• • • • • • • • • • • • • • • • • • • •	
Signal range, analogue input Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Lubricated operation not possible RCM Mark C UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU ROHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department UL E322346	•	0 - 10 V
Operating medium Compressed air in accordance with ISO8573-1:2010 [7:4:4] Inert gases Note on operating and pilot medium Authorisation RCM Mark c UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU ROHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department UL E322346	· · · · · · · · · · · · · · · · · · ·	0 - 10 V
Note on operating and pilot medium Authorisation RCM Mark c UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) UKCA marking (see declaration of conformity) To UK instructions for EMC To UK ROHS instructions Certificate issuing department Lubricated operation not possible RCM Mark c UL us - Listed (OL) KC-EMV to EU directive for EMC in accordance with EU RoHS directive To UK instructions for EMC To UK ROHS instructions	,	
Authorisation RCM Mark c UL us - Listed (OL) KC mark KC-EMV CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Certificate issuing department UL E322346	Note on operating and pilot medium	
KC mark CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Certificate issuing department UL E322346		RCM Mark
CE mark (see declaration of conformity) to EU directive for EMC in accordance with EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Certificate issuing department UL E322346	KC mark	. , ,
UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Certificate issuing department UL E322346		to EU directive for EMC
Certificate issuing department UL E322346	UKCA marking (see declaration of conformity)	To UK instructions for EMC
	Certificate issuing department	
	Corrosion resistance classification CRC	2 - Moderate corrosion stress



Feature	Value
PWIS conformity	VDMA24364-B2-L
RSBP classification to CD-0033	F1a
Cleanroom class	ISO class 4
Medium temperature	10 50 °C
Protection class	IP65
Ambient temperature	0 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
Mounting type	with through hole
Pneumatic connection, port 1	G1/8
Pneumatic connection, port 2	G1/8
Pneumatic connection, port 3	G1/8
Materials note	Conforms to RoHS
Material housing	Aluminium, powder-coated