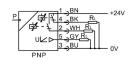
Pressure sensor SPAW-P16R-G14F-2PV-M12 Part number: 8022799

FESTO





General operating condition

Certification RCM compliance mark c.U. us Listed (01) CE marking (see declaration of conformity) As per EU BMC directive As per EU BMC direction As cut as per EU BMC directive As per EU BMC direction As cut as per EU BMC direction As per EU BMC direction As per EU BMC direction direction direction direction directi	Feature	Value
c LL us - Listed (OL) CE marking (see declaration of conformity) As per EU RMC directive As per EU RMC directive UKCA marking (see declaration of conformity) To UK instructions for EMC TO UK RMS instructions Note on materials Relative pressure Method of measurement Method of measurement Method of measurement Method of measuring range initial value Pressure measuring range initial value O MPa Pressure measuring range initial value O par Pressure measuring range initial value O pasi Pressure measuring range end value Pressure measuring range end value Pressure measuring range end value 1	Symbol	00995378
As per EU RoHS directive UKCA marking (see declaration of conformity) To UK instructions for EMC To UK RoHS instructions Note on materials Relative pressure Method of measurement Method of measuring range initial value Pressure measuring range initial value O bar Pressure measuring range initial value O bar Pressure measuring range initial value O psi Pressure measuring range initial value O psi Pressure measuring range end value 1.6 MPa Pressure measuring range end value 1.6 bar Pressure measuring range end value 232 psi Overload pressure Overload pressure 3.2 MPa Overload pressure Uquid media Gaseous media Temperature of medium Queriang medium Uquid media Gaseous media Temperature of medium Queriang medium	Certification	· · · · · · · · · · · · · · · · · · ·
To UK RoHS instructions Note on materials Relative pressure Measured variable Measured variable Method of measurement Pressure measuring range initial value Pressure measuring range initial value O bar Pressure measuring range initial value O bar Pressure measuring range initial value O psi Pressure measuring range end value Pressure measuring range end value 16 bar Pressure measuring range end value 232 psi Overload pressure Overload pressure 32 bar Overload pressure Upuid media Gaseous media Gaseous media Temperature of medium Upuid media Gaseous media Temperature of se FS Note The SS Switching output Switching function Switching function Switchale Max. output current 250 mA Analog output Or operating voltage range Reverse polarity protection Pug Reverse polarity protection Freeverse polarity protection Freeverse polarity protection Freeverse polarity protection Function technology M12x1 A-coded as per EN 61076-2-101	CE marking (see declaration of conformity)	
Measured variable Method of measurement Method of measuring range initial value O bar Pressure measuring range initial value O bar Pressure measuring range end value 1.6 MPa Pressure measuring range end value 1.6 bar Pressure measuring range end value 232 psi Overload pressure 3.2 MPa Overload pressure Overload pressure 3.2 bar Overload pressure Unurious defensive Overload pressure O	UKCA marking (see declaration of conformity)	
Method of measurement Pressure measuring range initial value Pressure measuring range initial value O bar Pressure measuring range initial value O psi Pressure measuring range initial value O psi Pressure measuring range end value 1.6 MPa Pressure measuring range end value 16 bar Pressure measuring range end value 232 psi Overload pressure Overload pressure 3.2 MPa Overload pressure Overload pressure U cliquid media Gaseous media Temperature of medium C co c 85 °C Accuracy in ± % FS 1 %FS Repetition accuracy in ± % FS 0.15 %FS Switching output Switching function Freely programmable Switching element function Switchable Max. output current 250 mA Analog output 0 c -10 V Rise time 3 ms Short-circuit protection yes Reverse polarity protection For operating voltage range Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Note on materials	RoHS-compliant
Pressure measuring range initial value Pressure measuring range initial value Pressure measuring range initial value O psi Pressure measuring range end value 1.6 MPa Pressure measuring range end value 16 bar Pressure measuring range end value 232 psi Overload pressure Overload pressure Overload pressure Overload pressure Uiquid media Gaseous media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature O °C 80 °C Accuracy in ± % FS 1 %FS Repetition accuracy in ± %FS O.15 %FS Switching output 2xPNP Switching function Freely programmable Switching function Switchable Max. output current 250 mA Analog output O -10 V Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Measured variable	Relative pressure
Pressure measuring range initial value Pressure measuring range initial value 1.6 MPa Pressure measuring range end value 1.6 MPa Pressure measuring range end value 1.6 bar Pressure measuring range end value 232 psi Overload pressure 3.2 MPa Overload pressure 3.2 MPa Overload pressure 464 psi Operating medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature 0 °C 85 °C Ambient temperature 1 %FS Repetition accuracy in ± %FS Switching output 2xPNP Switching output 2xPNP Switching element function Freely programmable Switching element function Max. output current 250 mA Analog output 0 · 10 V Rise time 3 ms Short-circuit protection De operating voltage range Reverse polarity protection Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Method of measurement	Metal thin-film pressure sensor
Pressure measuring range initial value Pressure measuring range end value Overload pressure 3.2 MPa Overload pressure 32 bar Overload pressure Overload pressure 464 psi Operating medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature O °C 80 °C Accuracy in ± % FS 1 %FS Repetition accuracy in ± %FS Switching output 2xPNP Switching function Freely programmable Switching element function Switchable Max. output current 250 mA Analog output O - 10 V Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection For operating voltage Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Pressure measuring range initial value	0 MPa
Pressure measuring range end value Pressure measuring range end value Pressure Pressure Pressure Pressure Pressure Pressure measuring range end value Pressure end v	Pressure measuring range initial value	0 bar
Pressure measuring range end value Pressure measuring range end value 232 psi Overload pressure 3.2 MPa Overload pressure 32 bar Overload pressure 464 psi Operating medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature Accuracy in ± % FS Switching output Switching function Freely programmable Switchable Max. output current Analog output Switching element function Max. output current Analog output Rise time 3 ms Short-circuit protection DC operating voltage range Liquid media Gaseous media Liquid media Gaseous media Co °C 85 °C Anabient temperature of medium -20 °C 85 °C -20	Pressure measuring range initial value	0 psi
Pressure measuring range end value Overload pressure Overload pressure Overload pressure Overload pressure Operating medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature O °C 80 °C Accuracy in ± % FS 1 %FS Repetition accuracy in ± %FS O.15 %FS Switching output Switching function Switchable Max. output current Analog output Connection type Short-circuit protection DC operating voltage range Reverse polarity protection Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Pressure measuring range end value	1.6 MPa
Overload pressure Overload pressure Overload pressure Operating medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature Operating medium -20 °C 85 °C Ambient temperature Operating medium -20 °C 85 °C Accuracy in ± % FS 1 % FS Repetition accuracy in ± % FS Operating output -22 NPP Switching output -22 NPP Switching function Freely programmable Switching element function Switchable Max. output current -250 mA Analog output -260 maximum analog output	Pressure measuring range end value	16 bar
Overload pressure Overload pressure Operating medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature O °C 80 °C Accuracy in ± % FS 1 %FS Repetition accuracy in ± %FS O.15 %FS Switching output 2xPNP Switching function Freely programmable Switching element function Switchable Max. output current 250 mA Analog output 0 · 10 V Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection Flug Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Pressure measuring range end value	232 psi
Overload pressure Operating medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature O °C 80 °C Accuracy in ± % FS 1 %FS Repetition accuracy in ± %FS O.15 %FS Switching output 2xPNP Switching function Freely programmable Switchable Max. output current 250 mA Analog output 0 - 10 V Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection Flug Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Overload pressure	3.2 MPa
Departing medium Liquid media Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature 0 °C 80 °C Accuracy in ± % FS 1 %FS Repetition accuracy in ± %FS Switching output 2xPNP Switching function Freely programmable Switchable Max. output current 250 mA Analog output 0 - 10 V Rise time 3 ms Short-circuit protection DC operating voltage range 15 V 35 V Reverse polarity protection Flug Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Overload pressure	32 bar
Gaseous media Temperature of medium -20 °C 85 °C Ambient temperature 0 °C 80 °C Accuracy in ± % FS Repetition accuracy in ± %FS Switching output 2xPNP Switching function Freely programmable Switchable Max. output current 250 mA Analog output 0 - 10 V Rise time 3 ms Short-circuit protection DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Overload pressure	464 psi
Ambient temperature Accuracy in ± % FS Repetition accuracy in ± %FS Switching output 2xPNP Switching function Freely programmable Switchable Max. output current Analog output 0 - 10 V Rise time 3 ms Short-circuit protection DC operating voltage range Reverse polarity protection Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Operating medium	
Accuracy in ± % FS Repetition accuracy in ± % FS Switching output Switching function Freely programmable Switchable Max. output current Analog output O - 10 V Rise time 3 ms Short-circuit protection DC operating voltage range To operating voltage range Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Temperature of medium	-20 °C 85 °C
Repetition accuracy in ± %FS Switching output 2xPNP Switching function Freely programmable Switchable Max. output current 250 mA Analog output 0 - 10 V Rise time 3 ms Short-circuit protection DC operating voltage range 15 V 35 V Reverse polarity protection Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Ambient temperature	0 °C 80 °C
Switching output Switching function Freely programmable Switchable Max. output current Analog output O - 10 V Rise time 3 ms Short-circuit protection DC operating voltage range Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Accuracy in ± % FS	1 %FS
Switching function Switching element function Max. output current 250 mA Analog output O - 10 V Rise time 3 ms Short-circuit protection DC operating voltage range Electrical connection 1, connection type Electrical connection 1, connection technology Freely programmable Switchable 9 vitchable 15 V 35 V For operating voltage range Plug M12x1 A-coded as per EN 61076-2-101	Repetition accuracy in ± %FS	0.15 %FS
Switching element function Max. output current 250 mA Analog output 0 - 10 V Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Switching output	2xPNP
Max. output current Analog output O - 10 V Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Switching function	Freely programmable
Analog output Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection Electrical connection 1, connection type Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Switching element function	Switchable
Rise time 3 ms Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Max. output current	250 mA
Short-circuit protection yes DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Analog output	0 - 10 V
DC operating voltage range 15 V 35 V Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Rise time	3 ms
Reverse polarity protection for operating voltage Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Short-circuit protection	yes
Electrical connection 1, connection type Plug Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	DC operating voltage range	15 V 35 V
Electrical connection 1, connection technology M12x1 A-coded as per EN 61076-2-101	Reverse polarity protection	for operating voltage
	Electrical connection 1, connection type	Plug
Electrical connection 1, number of pins/wires 5	Electrical connection 1, connection technology	M12x1 A-coded as per EN 61076-2-101
	Electrical connection 1, number of pins/wires	5

Feature	Value
Electrical connection 1, type of mounting	Screw-type lock not rotatable
Electrical connection 1, type of mounting	Compatible with screw lock rotatable
Electrical connection for input 1, connection pattern	00995383
Type of mounting	With internal thread With accessories
Mounting position	Any
Pneumatic connection	Internal thread G1/4
Product weight	230 g
Housing material	High-alloy stainless steel
Materials in contact with the media	High-alloy stainless steel
Display type	4-character alphanumeric LED display
Displayable unit(s)	MPa bar kPa kg/cm² psi
Switching status indication	LED red
Setting options	Via display and pushbuttons
Protection against tampering	PIN code
Setting range threshold value	0.5 % 100 %
Setting range hysteresis	0.5 % 99.5 %
Degree of protection	IP65 IP67
Corrosion resistance class (CRC)	4 - Particularly high corrosion stress
LABS (PWIS) conformity	VDMA24364 zone III