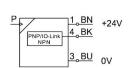
## Pressure sensor SPAE-B2R-PC10-PNLK-2.5K

**FESTO** 

Part number: 8025979





## **Data sheet**

Feature	Value
Certification	RCM compliance mark c UL us - Recognized (OL)
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
Note on materials	RoHS-compliant
Measured variable	Relative pressure
Method of measurement	Piezoresistive pressure sensor with display
Pressure measuring range initial value	-0.1 MPa -1 bar -14.5 psi
Pressure measuring range end value	0.1 MPa 1 bar 14.5 psi
Overload pressure	0.5 MPa 5 bar 72.5 psi
Operating medium	Compressed air as per ISO 8573-1:2010 [7:4:4]
Information on operating and pilot media	Operation with oil lubrication possible
Temperature of medium	0 °C50 °C
Ambient temperature	0 °C50 °C
ADC resolution	10 bit
Accuracy in ± % FS	1.5 %FS
Repetition accuracy in ± %FS	0.3 %FS
Temperature co-efficient in ± %FS/K	0.05 %FS/K
Switching output	PNP/NPN switchable
Switching function	Freely programmable
Switching element function	N/C contact N/O contact Switchable
On time	1 ms
Switch-off time	1 ms

Display range start value 9 %FS  Display range end value 99 %FS  Short-circuit protection yes  Protocol 10-Link®, protocol version 9 bevice V 1.1  Ol-Link®, protocol version 9 bevice V 1.1  Ol-Link®, function classes Process data variable (PDV) Identification Diagnostics Teach channel (BDC) Process data variable (PDV) Identification Diagnostics Teach channel (DOLInk®, function classes Process data variable (PDV) Identification Diagnostics Teach channel (DOLInk®, prot class A A OOLInk®, prot class A A Poll-Link®, prot class A A Poll-Link®, process data width IN 2 8yee Poll-Link®, process data content IN 2 bit BDC (pressure measurement) 2 bit BDC (pressure monitoring) Pol-Link®, process data content IN 3 ms Pol-Link®, data process polarity protection Pola	Feature	Value
Display range end value  Short-circuit protection  yes  Frotoclor  10-Link®, protocol version  Device V 1.1  O-Link®, protocol version  D-Link®, protocol data width OUT  D-Link®, protocol data width OUT  D-Link®, protocol data width N  D-Link®, protocol data width N  D-Link®, protocol data vidth	Max. output current	100 mA
Short-drault protection Protect IO-Link®, profile Smart sensor profile S	Display range start value	0 %FS
Protocol OLInk®, protocol version OLInk®, protocol version Device V 1.1 OLInk®, protocol version OLInk®, function classes Binary data channel (BDC) Process data variable (PDV) discrimination mode COM2 (38,4 REd) OLInk®, protess data variable (PDV) OLInk®, minimum cycle time 3 ms OLInk®, minimum cycle time 3 ms OLInk®, data memory required 0.5 kB OLInk®, data memory required 0.5 kB OL operating voltage range 18 V30 V Reverse polarity protection For all electrical connections Electrical connection Carbie Open end Cable (PDV) Open end Cable (PDV) Open end Cable (PDV) Open end Carbie (PDV) Open end Op	Display range end value	99 %FS
O-Link®, protocol version   Device V 1.1	Short-circuit protection	yes
O-Link®, profile   Smart sensor profile   O-Link®, function classes   Binary data channel (BDC)   Process data variable (PDV)   Identification   Diagnostics   Floats channel (BDC)   Process data variable (PDV)   Identification   Diagnostics   Floats channel   COM2 (38.4 kBd)   O-Link®, SIO mode support   Yes   O-Link®, SIO mode support   Yes   O-Link®, port class   A   O-Link®, process data width OUT   O   Style   O-Link®, process data width IN   2   Byte   O-Link®, process data width IN   2   Byte   O-Link®, process data content IN   14   bit PDV (pressure measurement)   2   bit BDC (pressure monitoring)   O-Link®, process data content IN   2   bit BDC (pressure monitoring)   O-Link®, data memory required   O.5 kB   O-Link®, data memory required   O-Link	Protocol	IO-Link®
Binary data channel (BDC)   Process data variable (PDV)   Identification   Diagnostics   Process data variable (PDV)   Identification   Identifi	IO-Link®, protocol version	Device V 1.1
Process data variable (PDV) Identification Diagnostics Treach channel  O-Link®, communication mode  COM2 (38,4 kBd)  O-Link®, process data width OUT  O Byte  O-Link®, process data width NI  2 byte  O-Link®, process data width NI  2 byte  O-Link®, process data width NI  2 bit BDC (pressure measurement) 2 bit BDC (pressure monitoring)  O-Link®, minimum cycle time  3 ms  O-Link®, minimum cycle time  3 ms  O-Link®, process planty protection  O-Link®, process planty protection  I all electrical connections  Electrical connection  Cable length  2.5 m  Type of mounting  Prin-type connection  Any  Preumatic connection  Cartridge 10 mm  Product weight  A0 g  Housing material  PA-reinforced  Sealing ring material  PA-reinforced  Sealing ring material  PA-reinforced  Sealing ring material  PSS  Switching status indication  LED yellow  Setting options  I 1-Link®  Setting appliants tampering  Prictorio against tampering  Prictorio against tampering  Prictorio resistance class (CRC)  1 *NoRa Product corresponds to Festo's internal product definition for use in battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery production-fleatials with more than 15% by mass of copper; zinc or rickle are excluded from use. In battery pro	IO-Link®, profile	Smart sensor profile
O-Link®, SIO mode support   Yes	IO-Link®, function classes	Process data variable (PDV) Identification Diagnostics Teach channel
IO-Link®, process data width OUT	·	
10-Link®, process data width OUT   0 Byte   14 bit PDV (pressure measurement)   2 Byte   10-Link®, process data content IN   14 bit PDV (pressure measurement)   2 bit BDC (pressure monitoring)   10-Link®, minimum cycle time   3 ms   18 V30 V   18	IO-Link®, SIO mode support	Yes
10-Link®, process data width IN   2 Byte   14 bit PDV (pressure measurement)   2 bit BDC (pressure monitoring)   10-Link®, process data content IN   2 bit BDC (pressure monitoring)   10-Link®, minimum cycle time   3 ms   10-Link®, data memory required   0.5 KB   18 V30 V   18		А
10-Link®, process data content IN  14 bit PDV (pressure measurement) 2 bit BDC (pressure monitoring)  10-Link®, minimum cycle time  3 ms  10-Link®, data memory required  0.5 KB  DC operating voltage range  18 V30 V  Reverse polarity protection  5 of all electrical connections  Electrical connection  2 mire Cable Open end  Cable length  2.5 m  Type of mounting Pin-type conneciton  Any  Prenumatic connection  Cartridge 10 mm  Product weight  40 g  Housing material PA-reinforced  Sealing ring material PA-reinforced  Sealing ring material PBM NBR  Display type  LED display 2-digit  Displayable unit(s)  Switching status indication  LED yellow  Setting options  10-Link® Feach-in Via display and pushbuttons  Protection against tampering PIN code  Setting ange threshold value 1 1%98 %  Degree of protection Corrosion resistance class (CRC) 2 - Moderate corrosion stress  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Display batter, circuit boards, cables, electrical plug connections are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils	·	0 Byte
2 bit BDC (pressure monitoring)  10-Link®, minimum cycle time  10-Link®, data memory required  10-Link®, data memory required  10-Link®, data memory required  10-Link®, data memory required  11 8 V30 V  Reverse polarity protection  12 awire Cable Open end  Cable Open end  Cable length  12.5 m  Mounting position  Preumatic connection  Cartridge 10 mm  Product weight  40 g  PA-reinforced  Sealing ring material  PA-reinforced  Sealing ring material  PPM NBR  Display type  1ED display 2-digit  Displayable unit(s)  Swifts  Switching status indication  LED yellow  Setting options  Protection against tampering  PIN code  Setting range threshold value  Degree of protection  Corrosion resistance class (CRC)  1 - Moderate corrosion stress  LABS (PWIS) conformity  Sultability for the production of Li-ion batteries  Product oversand coils  Product oversand coils	IO-Link®, process data width IN	2 Byte
DC-Link®, data memory required DC operating voltage range 18 V30 V Reverse polarity protection For all electrical connections  Selectrical connection  Cable Open end Cable Interpret Cable Open end  Cable Interpret Cable Open end  Cathe Open end  Cartridge 10 mm  Product weight Any Preumatic connection  Cartridge 10 mm  Product weight Any Pa-reinforced  Sealing ring material FPM NBR Display type LED display 2-digit Displayable unit(s) Switching status indication  ELED Vellow Setting options Fortection against tampering Protection against tampering Protection against tampering Protection Protection Profection Profectio	IO-Link®, process data content IN	
DC operating voltage range Reverse polarity protection For all electrical connections  Savire Cable Open end Cable length  2.5 m  Type of mounting Pin-type connection  Cartridge 10 mm  Product weight  Housing material Pareinforced Sealing ring material Pareinforced Sealing ring material Pisplay by 2-digit Display type  LED display 2-digit Displayable unit(s) Switching status indication LED yellow Setting options  10-Link® Teach-in Via display and pushbuttons Protection against tampering Pin code Setting range threshold value 1 %98 % Degree of protection Corrosion resistance class (CRC) LABS (PWIS) conformity  Product corresponds to Festo's internal product definition for use in battery production. Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically intickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils	IO-Link®, minimum cycle time	3 ms
Reverse polarity protection  Electrical connection  3-wire Cable Open end  Cable length  2.5 m  Type of mounting  Mounting position  Any  Preduct weight  40 g  Housing material  Sealing ring material  FPM NBR  Display type  LED display 2-digit  Displayable unit(s)  Switching status indication  LED yellow  Setting options  Foetection against tampering  Protection against tampering  Protection against tampering  Protection  Protection against tampering  Protection against tampering  Protection against tampering  Protection against tempering	IO-Link®, data memory required	0.5 KB
Electrical connection  3-wire Cable Open end  Cable length  2.5 m  Type of mounting Pin-type conneciton  Mounting position Any  Premuratic connection  Cartridge 10 mm  Product weight 40 g  Housing material PA-reinforced  Sealing ring material PFM NBR  Display type  LED display 2-digit  Displayable unit(s) Switching status indication  LED yellow  Setting options  IO-Link® Feach-in Via display and pushbuttons  Protection against tampering PIN code  Setting range threshold value 1 %98 %  Degree of protection  IP40  Corrosion resistance class (CRC) 2 Moderate corrosion stress  VDMA24364-B2-L  VDMA24364-B2-L  Product corresponds to Festo's internal product definition for use in battery production. Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are nickel in steel, chemically hickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils	DC operating voltage range	18 V30 V
Cable Open end Cable length 2.5 m Type of mounting Pin-type conneciton Mounting position Any Pneumatic connection Cartridge 10 mm Product weight 40 g Housing material PA-reinforced Sealing ring material FPM NBR Display type LED display 2-digit Displayable unit(s) Switching status indication LED yellow Setting options IO-Link® Teach-in Via display and pushbuttons Protection against tampering PIN code Setting range threshold value 1 %98 % Degree of protection IP40 Corrosion resistance class (CRC) 2 - Moderate corrosion stress VDMA24364-B2-L Suitability for the production of Li-ion batteries Product value in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils	Reverse polarity protection	for all electrical connections
Pin-type of mounting  Mounting position  Any  Pneumatic connection  Product weight  Housing material  Pa-reinforced  Sealing ring material  PFM NBR  Display type  LED display 2-digit  Displayable unit(s)  Switching status indication  LED yellow  Setting options  IO-Link® Teach-in Via display and pushbuttons  Protection against tampering  PIN code  Setting range threshold value  Degree of protection  Corrosion resistance class (CRC)  LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: 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	Electrical connection	Cable
Mounting position Pneumatic connection Cartridge 10 mm Product weight 40 g Housing material PA-reinforced Sealing ring material PFM NBR Display type LED display 2-digit Displayable unit(s) Switching status indication LED yellow Setting options IO-Link® Teach-in Via display and pushbuttons Protection against tampering PIN code Setting range threshold value Degree of protection Corrosion resistance class (CRC) LABS (PWIS) conformity VDMA24364-B2-L Suitability for the production of Li-ion batteries Product corresponds to Festo's internal product definition for use in battery production: Metals with more than 1% by mass of copper, zinc or nickel are excluded from use. The exceptions are lickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils	Cable length	2.5 m
Pneumatic connection  Cartridge 10 mm  Product weight  40 g  PA-reinforced  Sealing ring material  PPM NBR  Display type  LED display 2-digit  Displayable unit(s)  Switching status indication  LED yellow  Setting options  Teach-in Via display and pushbuttons  Protection against tampering  PIN code  Setting range threshold value  1 %98 %  Degree of protection  Corrosion resistance class (CRC)  LABS (PWIS) conformity  VDMA24364-B2-L  Product corresponds to Festo's internal product definition for use in battery production. 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	Type of mounting	Pin-type conneciton
Product weight Housing material PA-reinforced  FPM NBR Display type LED display 2-digit  Displayable unit(s) Switching status indication LED yellow Setting options Teach-in Via display and pushbuttons Protection against tampering PIN code Setting range threshold value 1 %98 % Degree of protection Corrosion resistance class (CRC) LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries Product corresponds to Festo's internal product definition for use in battery production: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	Mounting position	Any
Housing material  Sealing ring material  FPM NBR  Display type  LED display 2-digit  Displayable unit(s)  Switching status indication  LED yellow  Setting options  IO-Link® Teach-in Via display and pushbuttons  Protection against tampering  PIN code  Setting range threshold value  1 %98 %  Degree of protection  Corrosion resistance class (CRC)  2 · Moderate corrosion stress  LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: 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	Pneumatic connection	Cartridge 10 mm
Sealing ring material  FPM NBR  Display type  LED display 2-digit  Displayable unit(s)  %FS  Switching status indication  LED yellow  Setting options  IO-Link® Teach-in Via display and pushbuttons  Protection against tampering  PIN code  Setting range threshold value  1 %98 %  Degree of protection  IP40  Corrosion resistance class (CRC)  2 · Moderate corrosion stress  LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production:Metals with more than 1% by mass of copper, zinc or nicked are excluded from use.The exceptions are nickel in steel, chemically nickel-plated surfaces, circuit boards, cables, electrical plug connectors and coils	Product weight	40 g
NBR  LED display 2-digit  Displayable unit(s)  Setting options  LED yellow  Setting options  IO-Link® Teach-in Via display and pushbuttons  Protection against tampering  PIN code  Setting range threshold value  1 %98 %  Degree of protection  Corrosion resistance class (CRC)  LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: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	Housing material	PA-reinforced
2-digit  Displayable unit(s) %FS  Switching status indication LED yellow  Setting options IO-Link® Teach-in Via display and pushbuttons  Protection against tampering PIN code  Setting range threshold value 1 %98 %  Degree of protection IP40  Corrosion resistance class (CRC) 2 - Moderate corrosion stress  LABS (PWIS) conformity VDMA24364-B2-L  Suitability for the production of Li-ion batteries Product corresponds to Festo's internal product definition for use in battery production: 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	Sealing ring material	
Switching status indication  LED yellow  IO-Link® Teach-in Via display and pushbuttons  Protection against tampering  PIN code  Setting range threshold value  1 %98 %  Degree of protection  IP40  Corrosion resistance class (CRC)  2 - Moderate corrosion stress  LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: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	Display type	
Setting options    IO-Link®   Teach-in   Via display and pushbuttons   Protection against tampering   PIN code	Displayable unit(s)	%FS
Teach-in Via display and pushbuttons  Protection against tampering  PIN code  Setting range threshold value  1 %98 %  Degree of protection  IP40  Corrosion resistance class (CRC)  2 - Moderate corrosion stress  LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: 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	Switching status indication	LED yellow
Setting range threshold value 1 %98 %  Degree of protection IP40  Corrosion resistance class (CRC) 2 - Moderate corrosion stress  LABS (PWIS) conformity VDMA24364-B2-L  Suitability for the production of Li-ion batteries Product corresponds to Festo's internal product definition for use in battery production: 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	Setting options	Teach-in
Degree of protection IP40  Corrosion resistance class (CRC) 2 - Moderate corrosion stress  LABS (PWIS) conformity VDMA24364-B2-L  Suitability for the production of Li-ion batteries Product corresponds to Festo's internal product definition for use in battery production: 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	Protection against tampering	PIN code
Corrosion resistance class (CRC)  2 - Moderate corrosion stress  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: 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	Setting range threshold value	1 %98 %
LABS (PWIS) conformity  VDMA24364-B2-L  Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: 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	Degree of protection	IP40
Suitability for the production of Li-ion batteries  Product corresponds to Festo's internal product definition for use in battery production: 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	Corrosion resistance class (CRC)	2 - Moderate corrosion stress
battery production: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	LABS (PWIS) conformity	VDMA24364-B2-L
Cleanroom class Class 4 according to ISO 14644-1	Suitability for the production of Li-ion batteries	battery production: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
	Cleanroom class	Class 4 according to ISO 14644-1