# **PB7022**

#### Pressure sensor with LED bar display

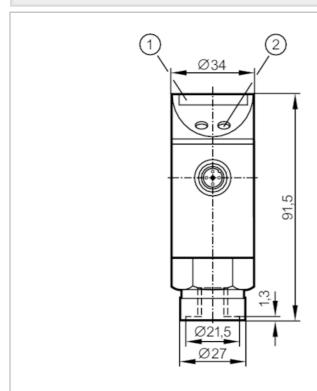
PB-100-SBR14-QFPKG/US/ /V

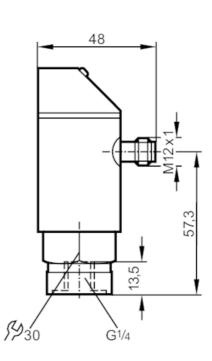


#### Article no longer available - archive entry

#### Alternative articles: PN7002

When selecting an alternative article and accessories please note that technical data may differ!





LED display
 Programming button



Product characteristics			
Output signal		switching signal	
Measuring range	[bar]	0100	
Process connection		threaded connection G 1/4 Internal thread	
Application			
Application		for industrial applications	
Media		liquids and gases	
Conditionally suitable for		For gaseous media the application is limited to max. 25 bar.	
Medium temperature	[°C]	-2580	
Min. bursting pressure	[bar]	650	
Pressure rating	[bar]	300	
Type of pressure		relative pressure	

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# Pressure sensor with LED bar display

PB-100-SBR14-QFPKG/US/ /V



Operating voltage         [V]         1830 DC           Current consumption         [mA]         < 50	Electrical data			
Min. insulation resistance   MO    100; (500 V DC)	Operating voltage	[V]	1830 DC	
Protection class	Current consumption	[mA]	< 50	
Reverse polarity protection   Service   Serv	Min. insulation resistance	[ΜΩ]	100; (500 V DC)	
Power-on delay time   S	Protection class		III	
Integrated watchdog yes  Inputs / outputs Number of inputs and outputs  Number of digital outputs: 2  Output  Total number of outputs gignal switching signal switching or switching signal switching or switching one / closed; (configurable)  Max. voltage drop switching [V] 2  Permanent current rating of switching of switching output DC [MA] 250  Switching frequency DC [Hz] 10  Short-circuit protection yes  Measuring/setting range switching syes (non-latching)  Overload protection yes  Measuring/setting range  Measuring/setting range  Measuring/setting range  [bar] 0100  Set point SP [bar] 5100  In steps of [bar] 1  Hysteresis [bar] 2  Accuracy / deviations  Switch point accuracy / seviations  Switch programming  Adjustment of the switch point switch switch point switch switch point switch switch switch switch point switch switch switch switch switch switch switch switch point switch	Reverse polarity protection		yes	
Inputs / outputs   Number of digital outputs: 2	Power-on delay time	[s]	0.2	
Number of linguts and outputs  Outputs  Total number of outputs  Output signal  Electrical design  Number of digital outputs  Output signal  Electrical design  PNP  Number of digital outputs  2  Output function  Max. voltage drop switching output DC  Permanent current rating of switching output DC  Permanent current rating of switching output DC  Short-circuit protection  Type of short-circuit protection  Voerload protection  Ves  Measuring/setting range  Measuring range  Measuring range  [bar]  Set point SP  [bar]  Hysteresis  [bar]  Accuracy / deviations  Switch point accuracy  [% of the final value]  Repeatability  [% of the final value]  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Operating conditions  Ambient temperature  [*C   -2580  Storage temperature  [*C   -2580	Integrated watchdog		yes	
Outputs         2           Total number of outputs         2           Output signal         Switching signal           Electrical design         PNP           Number of digital outputs         2           Output function         normally open / closed; (configurable)           Max. voltage drop switching output DC         [M]           Permanent current rating of switching output DC         [mA]           Switching frequency DC         [Hz]           Short-circuit protection         yes           Type of short-circuit protection         yes           Weasuring/setting range         [bar]           Measuring/setting range         [bar]           Measuring/setting range         [bar]           Measuring/setting range         [bar]           In steps of         [bar]           In steps of         [bar]           In steps of         [bar]           Switch point accuracy         (% of the final value)           Repeatability         < ± 0.25; (with temperature fluctuations < 10 K)	Inputs / outputs			
Total number of outputs   2   Switching signal	Number of inputs and outputs	5	Number of digital outputs: 2	
Output signal         switching signal           Electrical design         PNP           Number of digital outputs         2           Output function         normally open / closed; (configurable)           Max. voltage drop switching output DC         [M]           Permanent current rating of switching output DC         [mA]           Switching frequency DC         [Hz]           Short-circuit protection         yes           Type of short-circuit protection         yes           Overload protection         yes           Measuring/setting range         [bar]           Set point SP         [bar]           Set point SP         [bar]           In steps of         [bar]           Hysteresis         [bar]           Switching frequency DC         [bar]           Accuracy / deviations           Switch point accuracy [% of the final value]         \$\frac{\pmax \text{2},0}{\pmax \text{2}}\$           Repeatability [% of the final value]         \$\frac{\pmax \text{2},0,2}{\pmax \text{2}}\$           Repeatability [% of the final value]         \$\frac{\pmax \text{2},0,2}{\pmax \text{2}}\$           Software / programming         \$\frac{\pmax \text{2},0,2}{\text{2}}\$           Adjustment of the switch point         Programming button           Operating c	Outputs			
Electrical design	Total number of outputs		2	
Number of digital outputs         2           Output function         normally open / closed; (configurable)           Max. voltage drop switching output DC         [V]         2           Permanent current rating of switching output DC         [mA]         250           Switching frequency DC         [Hz]         10           Short-circuit protection         yes           Type of short-circuit protection         yes (non-latching)           Overload protection         yes           Measuring/setting range         [bar]         0100           Set point SP         [bar]         5100           In steps of         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations         Switch point accuracy           [% of the final value]         < ± 2,0	Output signal		switching signal	
Output function     normally open / closed; (configurable)       Max. voltage drop switching output DC     [MA]       Permanent current rating of switching output DC     [mA]       Switching frequency DC     [Hz]       Short-circuit protection     yes       Type of short-circuit protection     yes (non-latching)       Overload protection     yes       Measuring/setting range     [bar]     0100       Set point SP     [bar]     5100       In steps of [bar]     1     1       Hysteresis [bar]     2       Accuracy / deviations       Switch point accuracy [% of the final value]     < ± 2,0	Electrical design		PNP	
Max. voltage drop switching output DC         [M]         2           Permanent current rating of switching output DC         [mA]         250           Switching frequency DC         [Hz]         10           Short-circuit protection         yes           Type of short-circuit protection         yes (non-latching)           Overload protection         yes           Measuring/setting range         [bar]         0100           Set point SP         [bar]         5100           In steps of         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations         2           Switch point accuracy [% of the final value]         < ± 2,0	Number of digital outputs		2	
output DC         [V]         2           Permanent current rating of switching output DC         [mA]         250           Switching frequency DC         [Hz]         10           Short-circuit protection         yes           Type of short-circuit protection         yes (non-latching)           Overload protection         yes           Measuring/setting range         bys           Measuring/setting range         [bar]           Set point SP         [bar]         0100           Set point SP         [bar]         1           Hysteresis         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations         2           Switch point accuracy         < ± 2,0	Output function		normally open / closed; (configurable)	
switching output DC         [IIIA]         250           Switching frequency DC         [Hz]         10           Short-circuit protection         yes           Type of short-circuit protection         yes (non-latching)           Overload protection         yes           Measuring/setting range         [bar]           Measuring range         [bar]         0100           Set point SP         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations         2           Switch point accuracy [% of the final value]         < ± 2,0		[V]	2	
Short-circuit protection         yes           Type of short-circuit protection         yes (non-latching)           Overload protection         yes           Measuring/setting range         [bar]         0100           Set point SP         [bar]         5100           In steps of         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations         2           Switch point accuracy [% of the final value]         <± 2,0		[mA]	250	
Type of short-circuit protection  Overload protection  Weasuring/setting range  Measuring range  [bar]  Set point SP  [bar]  In steps of  Hysteresis  [bar]  Accuracy / deviations  Switch point accuracy  [% of the final value]  Repeatability  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Operating conditions  Anbient temperature  [°C]  Storage temperature  Yes  (ves  (	Switching frequency DC	[Hz]	10	
protection Overload protection  Measuring/setting range Measuring range [bar] Set point SP [bar] In steps of In steps of Itysteresis [bar]  Accuracy / deviations Switch point accuracy [% of the final value] Repeatability [% of the final value] Temperature drift per 10 K  Software / programming  Adjustment of the switch point Operating conditions  Ambient temperature [°C]  Storage temperature [°C]  Yes (Intri-lacting)  9 yes  yes  yes  4	Short-circuit protection		yes	
Measuring/setting range         [bar]         0100           Set point SP         [bar]         5100           In steps of         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations         Switch point accuracy           [% of the final value]         < ± 2,0			yes (non-latching)	
Measuring range         [bar]         0100           Set point SP         [bar]         5100           In steps of         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations           Switch point accuracy [% of the final value]         < ± 2,0	Overload protection		yes	
Set point SP         [bar]         5100           In steps of         [bar]         1           Hysteresis         [bar]         2           Accuracy / deviations         Switch point accuracy	Measuring/setting range			
In steps of [bar] 1  Hysteresis [bar] 2  Accuracy / deviations  Switch point accuracy [% of the final value]  Repeatability [% of the final value]  Temperature drift per 10 K < ± 0.3  Software / programming  Adjustment of the switch point  Operating conditions  Ambient temperature [°C]	Measuring range	[bar]	0100	
Hysteresis [bar] 2  Accuracy / deviations  Switch point accuracy [% of the final value]  Repeatability [% of the final value]  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Operating conditions  Ambient temperature [°C]  Storage temperature [°C]  Storage temperature [°C]	Set point SP	[bar]	5100	
Accuracy / deviations  Switch point accuracy [% of the final value]  Repeatability [% of the final value]  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Operating conditions  Ambient temperature [°C]  Storage temperature [°C]  Svitch point characteristics (vith temperature fluctuations < 10 K) <p></p>	In steps of	[bar]	1	
Switch point accuracy [% of the final value]  Repeatability [% of the final value]  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Operating conditions  Ambient temperature [°C]  Storage temperature [°C]  Storage temperature [°C]  * ± 2,0  * ± 2,0  * ± 2,0  * * ± 0,25; (with temperature fluctuations < 10 K)  * * * † 0.3  * * * * * † 0.3  * * * * * † 0.3  * * * * * † 0.3  * * * * * † 0.3  * * * * * † 0.3  * * * * * † 0.3  * * * * * † 0.3  * * * * * * † 0.3  * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * † 0.3  * * * * * * * † 0.3  * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * * † 0.3  * * * * * * * * * † 0.3  * * * * * * * * * † 0.3  * * * * * * * * * † 0.3  * * * * * * * * * † 0.3  * * * * * * * * * † 0.3  * * * * * * * * * * † 0.3  * * * * * * * * * * * † 0.3  * * * * * * * * * * * * † 0.3  * * * * * * * * * * * * * † 0.3  * * * * * * * * * * * * * * * * * * *	Hysteresis	[bar]	2	
[% of the final value]  Repeatability  [% of the final value]  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Operating conditions  Ambient temperature [°C]  Storage temperature [°C]  Storage temperature [°C]  A the final value (*± 0,25; (with temperature fluctuations < 10 K)  Frogramming button  Programming button  -2580  -40100	Accuracy / deviations			
Repeatability  [% of the final value]  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Operating conditions  Ambient temperature  [°C]  Storage temperature  [°C]  Storage temperature  (°C)  (with temperature fluctuations < 10 K)  Frogramming button  Operating conditions  -2580  -40100	Switch point accuracy		<+20	
[% of the final value]  Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Programming button  Operating conditions  Ambient temperature [°C]  Storage temperature [°C]  Storage temperature [°C]  -40100		value]	L,v	
Temperature drift per 10 K  Software / programming  Adjustment of the switch point  Programming button  Operating conditions  Ambient temperature [°C] -2580  Storage temperature [°C] -40100		volu-1	$< \pm 0,25$ ; (with temperature fluctuations $< 10 \text{ K}$ )	
Software / programming Adjustment of the switch point  Programming button  Operating conditions  Ambient temperature [°C] -2580  Storage temperature [°C] -40100	-	valuej		
Adjustment of the switch point  Programming button  Operating conditions  Ambient temperature [°C] -2580  Storage temperature [°C] -40100			\\\\	
Programming button  Operating conditions  Ambient temperature [°C] -2580  Storage temperature [°C] -40100				
Ambient temperature [°C] -2580 Storage temperature [°C] -40100	point		Programming button	
Storage temperature [°C] -40100				
	<u> </u>			
Protection IP 67		[°C]		
	Protection	Protection IP 67		

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### Pressure sensor with LED bar display

PB-100-SBR14-QFPKG/US/ /V



Tests / approvals		
	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
FMC	EN 61000-4-3 HF radiated	10 V/m
EMC	EN 61000-4-4 Burst	2 kV
	EN 61000-4-6 HF conducted	10 V
Shock resistance	DIN IEC 68-2-27	50 g (11 ms)
Vibration resistance	DIN IEC 68-2-6	20 g (102000 Hz)
Mechanical data		
Material	EPDM/X; FKM; NBR; PBT; PC; stainless steel (1.4301 / 304)	
Materials (wetted parts)	EKM: ceramics: stainless steel (1 4305 / 303)	

Material	EPDM/X; FKM; NBR; PBT; PC; stainless steel (1.4301 / 304)	
Materials (wetted parts)	FKM; ceramics; stainless steel (1.4305 / 303)	
Min. pressure cycles	100 million	
Process connection	threaded connection G 1/4 Internal thread	

Displays / operating elements		
	Switching status	2 x LED, yellow
Display	Measured values	10 x LED, green Resolution 10 % of the final value

Remarks	
Pack quantity	1 pcs.

### Electrical connection

Connector: 1 x M12



