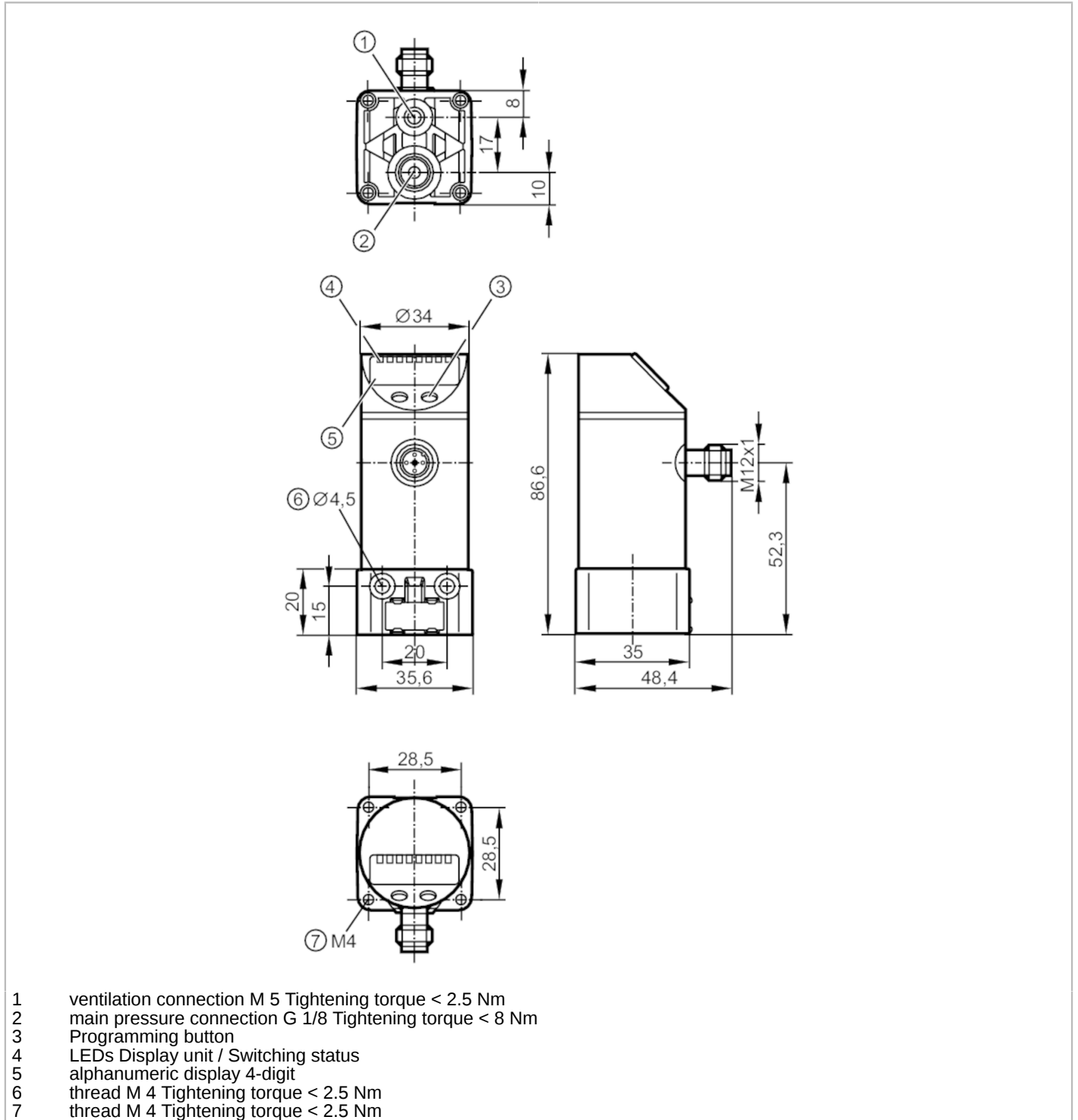


PN7809



Pressure sensor with display

PN-001BRBR18-QFRKG/US/ IV



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2			
Measuring range	-1...1 bar	-1000...1000 mbar	-14.5...14.5 psi	-100...100 kPa
Process connection	threaded connection G 1/8 Internal thread			

Application

System	gold-plated contacts
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Application	for industrial applications		
Media	compressed air		
Conditionally suitable for	other media on request		
Medium temperature [°C]	0...60		
Min. bursting pressure	30000 mbar	435 psi	3000 kPa
Pressure rating	20000 mbar	290 psi	2000 kPa
Type of pressure	relative pressure; vacuum		

Electrical data

Operating voltage [V]	18...36 DC; (to SELV/PELV)		
Current consumption [mA]	< 50		
Min. insulation resistance [MΩ]	100; (500 V DC)		
Protection class	III		
Reverse polarity protection	yes		
Overvoltage protection	yes; (< 40 V)		
Power-on delay time [s]	0.3		
Integrated watchdog	yes		

Inputs / outputs

Number of inputs and outputs	Number of digital outputs: 2
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Outputs

Total number of outputs	2		
Output signal	switching signal		
Electrical design	PNP/NPN		
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]	< 170		
Short-circuit protection	yes		
Type of short-circuit protection	yes (non-latching)		

Measuring/setting range

Measuring range	-1...1 bar	-1000...1000 mbar	-14.5...14.5 psi	-100...100 kPa
Set point SP	-975...1000 mbar	-14.1...14.5 psi	-97.5...100 kPa	
Reset point rP	-980...995 mbar	14.2...14.4 psi	-98...99.5 kPa	
In steps of	5 mbar	0.1 psi	0.5 kPa	
Factory setting	SP1 = -500 mbar		rP1 = -540 mbar	
	SP2 = 500 mbar		rP2 = 460 mbar	

Accuracy / deviations

Switch point accuracy [% of the span]	< ± 0,5		
Repeatability [% of the span]	< ± 0,1; (with temperature fluctuations < 10 K)		
Characteristics deviation [% of the span]	< ± 0,25 (BFSL) / < ± 0,5 (LS); (BFSL = Best Fit Straight Line; LS = limit value setting)		
Hysteresis deviation	< ± 0,25		

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	[% of the span]	
Long-term stability	[% of the span]	< ± 0,05; (per 6 months)
Temperature coefficient zero point	[% of the span / 10 K]	0,2; (0...60 °C)
Temperature coefficient span	[% of the span / 10 K]	0,2; (0...60 °C)

Reaction times

Delay time programmable dS, dr	[s]	0; 0,2...50
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Software / programming

Parameter setting options	hysteresis / window; normally open / closed; Diagnostic function; switching logic; switch-on/switch-off delay; Damping; Display unit
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Operating conditions

Ambient temperature	[°C]	-25...85
Storage temperature	[°C]	-25...85
Protection		IP 67

Tests / approvals

EMC	EN 61000-4-2 ESD	4 kV CD / 8 kV AD
	EN 61000-4-3 HF radiated	10 V/m
	EN 61000-4-4 Burst	2 kV
	EN 61000-4-5 Surge	0,5/1 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 (10...2000 Hz)
MTTF	[years]	284
Pressure equipment directive	sound engineering practice; can be used for group 2 fluids; group 1 fluids on request	

Mechanical data

Weight	[g]	173
Material	stainless steel (1.4301 / 304); PPS; PC; PBT; PEI; FKM	
Materials (wetted parts)	stainless steel (1.4567 / 304Cu); brass; FKM; PPS; silicon (coated)	
Min. pressure cycles	50 million	
Process connection	threaded connection G 1/8 Internal thread	

Displays / operating elements

Display	Display unit	3 x LED, green
	Switching status	2 x LED, yellow
	Function display	alphanumeric display, 4-digit
	Measured values	alphanumeric display, 4-digit

Accessories

Accessories (optional)	mounting set for DIN rail: TH 35-7,5 / EN60715, E37340	
	Adapter: R1/8 - R1/8, E37350	
	Thread extension: 1/8", E30075	
	push-in air fitting for tube: Ø 6 mm, E30076	
	push-in air fitting for tube: Ø 8 mm, E30077	

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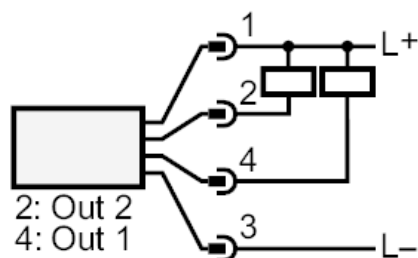
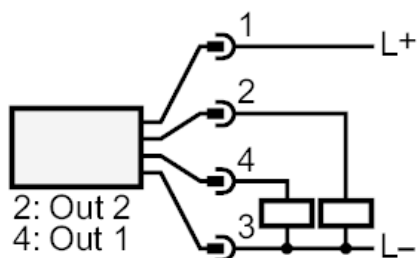
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Remarks

Pack quantity: 1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: gold-plated



OUT1 Switching output
OUT2 Switching output
 Diagnostic output