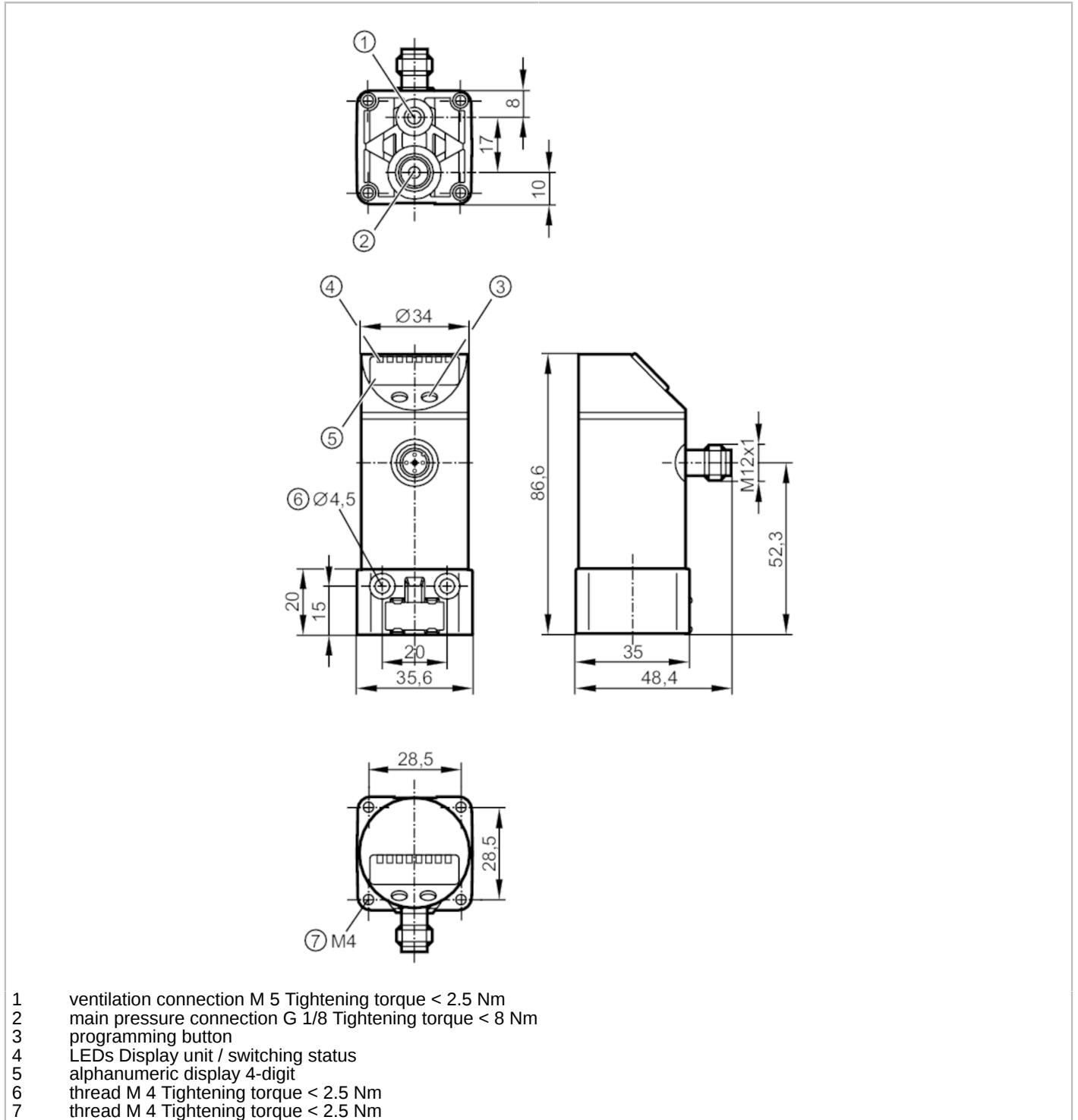


PN7834



Pressure sensor with display

PN-010-RBR18-QFRKG/US/ IV



Product characteristics

Number of inputs and outputs	Number of digital outputs: 2		
Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Process connection	threaded connection G 1/8 internal thread		

Application

Special feature	Gold-plated contacts
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Pressure sensor with display

PN-010-RBR18-QFRKG/US/ /V

Application	for industrial applications		
Media	compressed air		
Conditionally suitable for	other media on request		
Medium temperature [°C]	0...60		
Min. burst pressure	30 bar	435 psi	3 MPa
Pressure rating	20 bar	290 psi	2 MPa
Type of pressure	relative pressure; vacuum; differential pressure		

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 / normally closed; (parameterisable)		
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	pulsed		

Measuring/setting range

Measuring range	-1...10 bar	-14.5...145 psi	-0.1...1 MPa
Set point SP	-0.9...10 bar	-13...145 psi	-0.09...1 MPa
Reset point rP	-0.95...9.95 bar	-14...144 psi	-0.095...0.995 MPa
In steps of	0.05 bar	1 psi	0.005 MPa
Factory setting		SP1 = 2.50 bar SP2 = 7.50 bar	rP1 = 2.30 bar rP2 = 7.30 bar

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)

Response times

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

Parameter setting options	hysteresis / window; normally open / normally 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]	173.5
Housing		cylindrical
Dimensions	[mm]	Ø 34 / L = 86.6
Materials		stainless steel (304/1.4301); PPS; PC; PBT; PEI; FKM
Materials (wetted parts)		stainless steel (304CU/1.4567); 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

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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Pressure sensor with display

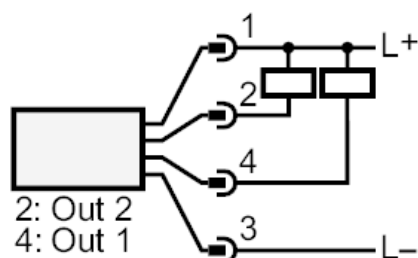
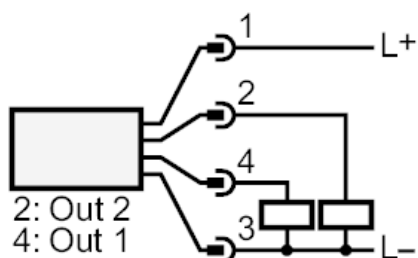
PN-010-RBR18-QFRKG/US/ IV

Remarks

Pack quantity 1 pcs.

Electrical connection

Connector: 1 x M12; coding: A; Contacts: 4, gold-plated



OUT1 switching output
OUT2 switching output
Diagnostic output