

QPress Smart Pressure Transmitter - QOM-SMART 4600 Series

Smart pressure transmitter with LCD and RS485, -1...1000 bar ranges, 4-20 mA/RS485.

Certifications

Quality Lab Solutions data sheet R4



Applications

- General industrial pressure monitoring
- Pump and pipeline systems
- Plant utilities
- Test stands
- OEM equipment

Special Features

- Smart pressure transmitter with LCD indicator ($-30...+80\text{ }^{\circ}\text{C}$ viewing)
- 4-20 mA (2-wire) and RS485 digital (ASCII / MODBUS RTU) options
- Range adjust, zero/restore and configuration without external calibration
- Stainless-steel construction with 316L diaphragm; IP65 ingress protection
- Overpressure up to $1.5 \times \text{FS}$ or 1100 bar (min); vibration 20 g, 20-5000 Hz



QOM-SMART 4600

Description

Digital, temperature-compensated pressure transmitter with integral display and RS485 communications. Provides a 4-20 mA loop output or RS485 interface with ASCII or MODBUS RTU protocols. Ranges span from vacuum ($-1...0$ bar) to 1000 bar.

Stainless-steel construction with 316L diaphragm and IP65 protection. Designed for precise measurement across a wide compensated temperature range with excellent long-term stability.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	-1-0 bar; 0-0.1 bar; 0-0.16 bar; 0-0.25 bar; 0-0.4 bar; 0-0.6 bar; 0-1 bar; 0-1.6 bar; 0-2.5 bar; 0-4 bar; 0-6 bar; 0-10 bar; 0-16 bar; 0-25 bar; 0-40 bar; 0-60 bar; 0-100 bar; 0-160 bar; 0-250 bar; 0-350 bar; 0-700 bar; 0-1000 bar
Pressure reference	Gauge; Sealed gauge; Absolute
Accuracy	±0.25 %FS (total accuracy)
Electrical Outputs	4-20mA ; RS485 interface
RS485 interface	ASCII agreement or MODBUS RTU, BUS with 99 transmitters
Load Resistance (Ω)	(U-8V)/0.02A (U=input voltage)
Operating temp.	-30...+80 °C
Compensated temp.	-10 to +70 °C
Storage temp.	-40...+85 °C
Insulation resistance	100 MΩ, 50 V DC
Vibration resistance	20 g, 20-5000 Hz
Shock resistance	20 g, 11 ms
Protection	IP65
Housing	Stainless steel 304
Wetted Parts	Stainless steel 316L diaphragm; stainless-steel pressure port
Net weight	≈ 420 g
Display type	LCD
Approvals/Certification	UKCA; CE; RoHS
Process connections	M20×1.5 male (face seal); M20×1.5 male (waterline seal); G1/2 male; G1/4 female; Flush diaphragm M20×1.5 male; Flush diaphragm G1/2 male
Overpressure/Burst Pressure	1.5 × FS or 1100 bar (minimum applies)
Housing Material	Stainless steel
Electrical connections	Cable / terminal via housing
Power Supply	8-28 V DC or 3.6 V battery module
Longterm Stability	±0.2%FS/Year

Measuring Range (Gauge Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
1	0-0.25 bar	150%FS	±0.25%FS
2	0-0.4 bar	150%FS	±0.25%FS
3	0-0.5 bar	150%FS	±0.25%FS
4	0-0.6 bar	150%FS	±0.25%FS
5	0-0.7 bar	150%FS	±0.25%FS
6	0-0.8 bar	150%FS	±0.25%FS
7	0-0.9 bar	150%FS	±0.25%FS
8	0-1 bar	150%FS	±0.25%FS
9	0-1.6 bar	150%FS	±0.25%FS
10	0-2 bar	150%FS	±0.25%FS
11	0-2.5 bar	150%FS	±0.25%FS
12	0-3 bar	150%FS	±0.25%FS
13	0-4 bar	150%FS	±0.25%FS
14	0-5 bar	150%FS	±0.25%FS
15	0-6 bar	150%FS	±0.25%FS
16	0-7 bar	150%FS	±0.25%FS

Range Code	Measuring Range	Overpressure	Accuracy
16	0-7 bar	150%FS	±0.25%FS
17	0-8 bar	150%FS	±0.25%FS
18	0-9 bar	150%FS	±0.25%FS
19	0-10 bar	150%FS	±0.25%FS
20	0-16 bar	150%FS	±0.25%FS
21	0-20 bar	150%FS	±0.25%FS
22	0-25 bar	150%FS	±0.25%FS
23	0-30 bar	150%FS	±0.25%FS
24	0-35 bar	150%FS	±0.25%FS
25	0-40 bar	150%FS	±0.25%FS
26	0-50 bar	150%FS	±0.25%FS
27	0-60 bar	150%FS	±0.25%FS
28	0-70 bar	150%FS	±0.25%FS
29	0-80 bar	150%FS	±0.25%FS
30	0-90 bar	150%FS	±0.25%FS
31	0-100 bar	150%FS	±0.25%FS
32	0-160 bar	150%FS	±0.25%FS
33	0-200 bar	150%FS	±0.25%FS
34	0-250 bar	150%FS	±0.25%FS
35	0-300 bar	150%FS	±0.25%FS
36	0-350 bar	150%FS	±0.25%FS
37	0-400 bar	150%FS	±0.25%FS
38	0-500 bar	150%FS	±0.25%FS
39	0-600 bar	150%FS	±0.25%FS

Measuring Range (Sealed Pressure)

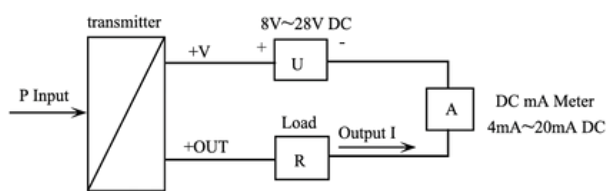
Range Code	Measuring Range	Overpressure	Accuracy
1	0-40 bar	150%FS	±0.25%FS
2	0-50 bar	150%FS	±0.25%FS
3	0-60 bar	150%FS	±0.25%FS
4	0-70 bar	150%FS	±0.25%FS
5	0-80 bar	150%FS	±0.25%FS
6	0-90 bar	150%FS	±0.25%FS
7	0-100 bar	150%FS	±0.25%FS
8	0-160 bar	150%FS	±0.25%FS
9	0-200 bar	150%FS	±0.25%FS
10	0-250 bar	150%FS	±0.25%FS
11	0-300 bar	150%FS	±0.25%FS
12	0-350 bar	150%FS	±0.25%FS
13	0-400 bar	150%FS	±0.25%FS
14	0-500 bar	150%FS	±0.25%FS
15	0-600 bar	150%FS	±0.25%FS
16	0-800 bar	138%FS	±0.25%FS
17	0-1000 bar	110%FS	±0.25%FS

Output Signals

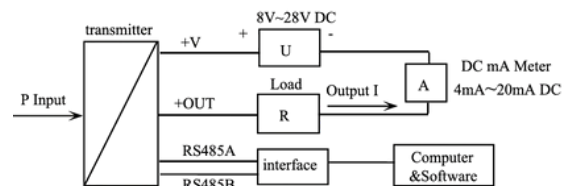
Code	Output	Power Supply	Load
I4	4-20 mA (2-wire)	8-28 VDC	$\leq (U-8)/0.02 \Omega$
RS	RS485 (ASCII)	8-28 VDC or Battery	-
RM	RS485 (MODBUS RTU)	8-28 VDC or Battery	-

Electrical Connections

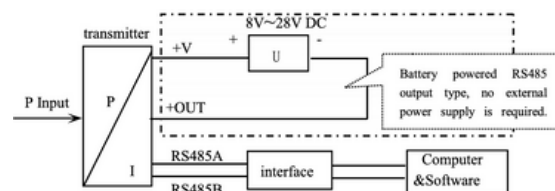
Code	Description	Pinout
E1	Cable outlet — supports 2-wire current (I4) and RS485 (RS/RM)	2-wire current (I4): Pin 1 (Black): +V; Pin 2 (Red): Current output - RS485 (RS/RM): Pin 3 (Yellow): RS485A; Pin 4 (White): RS485B



4-20mA Electrical connection



4-20mA + RS485 Electrical connection



Battery Operated + RS485

Power Supply

Code	Supply
V6	8-28 VDC
VB	Battery supply (3.6 V lithium module; no 4-20 mA)

Certification

Code	Description
N	None stated
CE	EMC/CE
RO	RoHS
UK	UKCA

Process Connections/Drawings

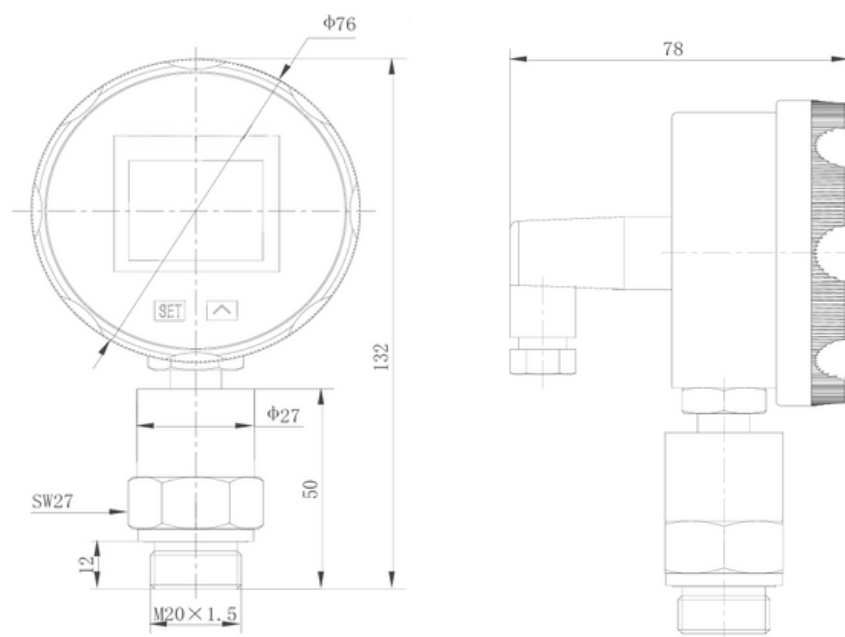
Code	Thread / Port
P01	M20×1.5 male, face type seal (C1)
P02	G1/2 male (C3)
P03	G1/4 female (C4)
P04	M20×1.5 male, waterline seal (C5)
P05	Flush diaphragm, M20×1.5 male (PC1)
P06	Flush diaphragm, G1/2 male (PC3)

Construction Materials

Code	Diaphragm	Pressure Port	Housing
22	SS 316L	SS	SS
24	SS 316L	SS 316L	SS 316L

Accuracy options

Code	Accuracy
A1	±0.25%FS



Order Guide

Segment	Your Code	Options
Product family	QOM-SMART 4600 Series	QOM-SMART 4600 Series
Pressure Reference	GP / SP / AP	Select pressure reference (single-port)
Range	01...39	See MR_Gauge / MR_Sealed (house ladder for X)
Accuracy	A1	See Accuracy options
Output	I4 / RS / RM	See Output Signals
Power Supply	V6 / VB	See Power Supply
Construction Materials	22 / 24	See Construction Materials
Process Connection	P01 ... P06	See Process Connections & Drawings
Electrical Connection	E1	See Electrical Connections
Certification	CE / RO / N / UK	See Certification

Ordering Example 0–10 bar gauge (code 19), $\pm 0.25\%FS$, 4–20 mA (2-wire), 8–28 VDC, 316L diaphragm/316L port & housing, G1/2 male, cable outlet, CE

Family	Ref	Range	Accuracy	Output	Power Supply	Construction Materials	Process Connection	Electrical Connection	Certification
QOM-SMART 4600	GP	19	A1	I4	V6	24	P02	E1	CE

Notes

Ensure media compatibility with wetted parts. Torque depends on gasket, mating material and lubrication.

