

QPress Pressure Transducer — QLS-MICRO 1200 Series

Ultra-low pressure ceramic transmitter with up to 10× overpressure resilience and compact stainless-steel housing.

Certifications

Quality Lab Solutions data sheet R4



Applications

- Petrochemical
- Power plants
- Mining
- Urban water supply
- Hydrological exploration

Special Features

- Two port options: standard or chamberless (large diaphragm contact area)
- Ceramic sensing diaphragm with excellent corrosion resistance
- Overload capability up to 10× full scale; strong shock resistance
- Intrinsically safe option: Ex ia IIC T6 Ga
- IP65 ingress protection; compact outline with SW27 base



QLS-MICRO 1200

Description

The QLS-MICRO 1200 Series is designed for low-pressure measurement. It uses a ceramic sensor sealed in a stainless-steel housing to deliver high overload tolerance, stability and corrosion resistance. A two-wire 4–20 mA output operates from 12–28 V DC with intrinsically safe variants available for hazardous areas (Ex ia IIC T6 Ga). Gauge ranges span 0–0.01 to 0–0.4 bar, with positive/negative ranges down to –0.1–0 bar and symmetric combinations up to ± 0.1 bar. Temperature compensation and an IP65 rating support reliable operation across industrial environments.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	Gauge (G): 0–0.01 to 0–0.4 bar; Positive/Negative (N): –0.1–0 to –0.005–0 bar; symmetric $\pm$ ranges –0.05...+0.05 to –0.1...+0.1 bar; see range tables.
Pressure reference	Gauge
Accuracy	$\pm 0.5\%$ FS or $\pm 1\%$ FS (range-dependent)
Hysteresis & repeatability	Hysteresis $\leq \pm 0.1\%$ FS; Repeatability $\leq \pm 0.1\%$ FS
Temp. drift	$\leq \pm 0.15\%$ FS/10°C (–20...80°C); $\leq \pm 0.2\%$ FS/10°C (–30...–20°C)
Ambient temp.	–30...80°C (Connector); –20...70°C (PE cable); –20...80°C (PUR cable); –20...60°C (Ex)
Medium temp.	–40...120°C (general); 20...85°C (cable)
Storage temp.	–30 to +105 °C
Protection	IP65
Wetted Parts	Isolated diaphragm: 96% alumina ceramic; Pressure port: SS304
Net weight	≤ 150 g
Size of hexagon	SW27 base; SW45 top (connector/cable types)
Approvals/Certification	UKCA; CE; RoHS; Intrinsic safety Ex ia IIC T6 Ga (option)
Electrical Outputs	4–20 mA (2-wire)
Process connections	M20×1.5 male (Standard Type)
Overpressure/Burst Pressure	Per tables: up to 10× FS; includes 600 kPa (kPa ranges), 3000–6000 mbar (mbar ranges), 180/1800 mbar for $\pm$ ranges
Housing Material	SS304
Electrical connections	4-pin connector; Cable
Power Supply	12–28 V DC ($\leq (U-12)/0.02 \Omega$ load)
Longterm Stability	$\pm 0.5\%$ FS/year

Measuring Range (Gauge Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
01	-0.010–0.0000 bar	18000%FS	$\pm 1\%$ FS
02	-0.020–0.0000 bar	9000%FS	$\pm 1\%$ FS
03	-0.040–0.0000 bar	4500%FS	$\pm 1\%$ FS
04	-0.050–0.0000 bar	3600%FS	$\pm 1\%$ FS
05	-0.060–0.0000 bar	3000%FS	$\pm 1\%$ FS
06	-0.10–0.0000 bar	1800%FS	$\pm 1\%$ FS
07	-0.0050–0.0050 bar	18000%FS	$\pm 1\%$ FS
08	-0.010–0.010 bar	9000%FS	$\pm 1\%$ FS
09	-0.020–0.020 bar	4500%FS	$\pm 1\%$ FS
10	-0.030–0.030 bar	3000%FS	$\pm 1\%$ FS
11	-0.035–0.035 bar	2571%FS	$\pm 1\%$ FS
12	-0.050–0.050 bar	1800%FS	$\pm 1\%$ FS
13	-0.10–0.10 bar	900%FS	$\pm 1\%$ FS
14	-0.0050–0.010 bar	12000%FS	$\pm 1\%$ FS
15	-0.0050–0.025 bar	6000%FS	$\pm 1\%$ FS
16	-0.0050–0.050 bar	3273%FS	$\pm 1\%$ FS
17	-0.010–0.030 bar	4500%FS	$\pm 1\%$ FS
18	-0.010–0.050 bar	3000%FS	$\pm 1\%$ FS
19	-0.010–0.10 bar	1636%FS	$\pm 1\%$ FS
20	-0.025–0.050 bar	2400%FS	$\pm 1\%$ FS
21	-0.050–0.10 bar	1200%FS	$\pm 1\%$ FS

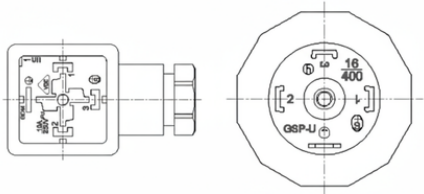
Range Code	Measuring Range	Overpressure	Accuracy
22	0–0.010 bar	30000%FS	±1%FS
23	0–0.010 bar	30000%FS	±1%FS
24	0–0.015 bar	20000%FS	±1%FS
25	0–0.015 bar	20000%FS	±1%FS
26	0–0.020 bar	30000%FS	±0.5%FS
27	0–0.020 bar	30000%FS	±0.5%FS
28	0–0.030 bar	20000%FS	±0.5%FS
29	0–0.030 bar	20000%FS	±0.5%FS
30	0–0.040 bar	15000%FS	±0.5%FS
31	0–0.040 bar	15000%FS	±0.5%FS
32	0–0.050 bar	12000%FS	±0.5%FS
33	0–0.050 bar	12000%FS	±0.5%FS
34	0–0.060 bar	10000%FS	±0.5%FS
35	0–0.060 bar	10000%FS	±0.5%FS
36	0–0.070 bar	8571%FS	±0.5%FS
37	0–0.070 bar	8571%FS	±0.5%FS
38	0–0.080 bar	7500%FS	±0.5%FS
39	0–0.080 bar	7500%FS	±0.5%FS
40	0–0.090 bar	6667%FS	±0.5%FS
41	0–0.090 bar	6667%FS	±0.5%FS
42	0–0.10 bar	6000%FS	±0.5%FS
43	0–0.10 bar	6000%FS	±0.5%FS
44	0–0.15 bar	4000%FS	±0.5%FS
45	0–0.15 bar	4000%FS	±0.5%FS
46	0–0.20 bar	3000%FS	±0.5%FS
47	0–0.20 bar	3000%FS	±0.5%FS
48	0–0.30 bar	2000%FS	±0.5%FS
49	0–0.30 bar	2000%FS	±0.5%FS
50	0–0.40 bar	1500%FS	±0.5%FS
51	0–0.40 bar	1500%FS	±0.5%FS

Output Signals

Code	Output	Power Supply	Load
I4	4-20 mA (2-wire)	12-28 VDC	≤(U-12V)/0.02 Ω

Electrical Connections

Code	Description	Pinout
E2	4-pin connector	2-wire current (I4): Pin 1: Supply +; Pin 2: Current output
E1	Cable (integral)	2-wire current (I4): Red: Supply +; Black: Current output



4-Pin Connector (E2)



Cable (E1)

Power Supply

Code	Supply
S1	12-28 VDC

Construction Materials

Code	Diaphragm	Pressure Port	Housing
M1	96% alumina ceramic	SS304	SS304

Cable Material

Code	Description
CB1	PE (standard)
CB2	PUR

Certification

Code	Description
IS	Intrinsically safe Ex ia IIC T6 Ga

Accuracy options

Code	Accuracy
A25	±0.5%FS
A10	±1%FS

Sensor Seal

Code	Seal type
00	FKM
01	EPDM
02	Weld
03	Integral Sintering

Process Connections/Drawings

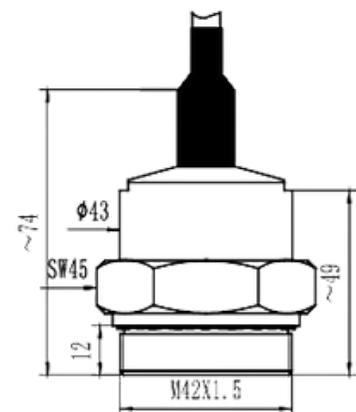
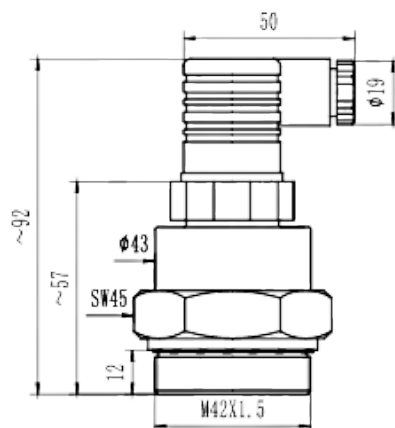
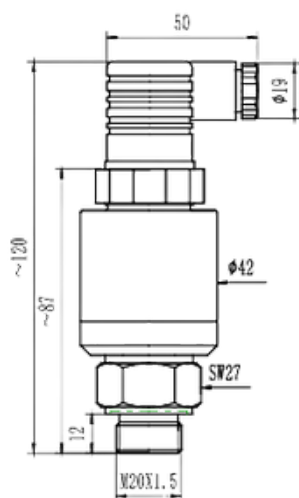
Code	Thread / Port
P1	M20×1.5 male
P2	M42X1.5 male

Cable Length

Code	Length
LN	None
L001	1 m
L1D5	1.5 m
L002	2 m
L003	3 m
L004	4 m
L005	5 m
L006	6 m
L007	7 m
L008	8 m
L009	9 m
L010	10 m

Accessory

Code	Description
M6	M6 digital indicator
M7	M7 digital indicator
YB3	Yb junction box (3-core)
YC3	MS200 (3-core)
YD3	PD140
YEM6	Ye (M6)
YEM7	Ye (M7)
YE	Ye (without indicator)
MS01	Polymer plug



Order Guide

Segment	Your Code	Options
Product family	QLS-MICRO 1200	QLS-MICRO 1200
Pressure Reference	GP	Gauge Only
Range	01-..51	See measuring range
Accuracy	A25/A10	See Accuracy options
Output	I4	See Output Signals
Power Supply	S1	See Power Supply
Construction Materials	M1	See Construction Materials
Process Connection	P1/P2	See Process connections/Drawings
Connection Seal	CS1/CS2/CS3	See Connection Seal
Electrical Connection	E1/E2	See Electrical Connections
Cable Material	CB1/CB2	See Cable Material
Cable Length	LN/L001/L1D5/L002-.../L010	See Cable Length
Certification	IS	See Certification
Accessories	M6/M7/YB3/YC3/YD3/YEM6/YEM7/YE/MS01	See Accessory

Ordering Example 0-0.015 bar gauge , $\pm 1\%FS$, 4-20 mA (2-wire), 12-28 VDC, ceramic/SS304 build, M20X1.5 male, FKM seal, integral PUR cable 3 m, Ex ia

Family	Ref	Range	Accuracy	Output	Power Supply	Construction Materials	Process Connection	Process Connection Sealing	Electrical Connection	Cable Material (E1 only)	Cable Length (E1 only)	Certification	Accessories
QLS-MICRO 1200	GP	25	A10	I4	S1	M1	P1	CS2	E1	CB2	L003	IS	-

Notes

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