

QPress Pressure Transducer - QLS-UNIVERSAL 2200 Series

Compact all-stainless OEM pressure transducer, 0.5 % FS, up to 600 bar.

Certifications

Quality Lab Solutions data sheet R4



Applications

- Pneumatic systems
- Hydraulic power units
- General machinery and OEM equipment
- Energy and environmental systems
- Non-invasive medical equipment

Special Features

- 316L stainless-steel isolation diaphragm
- All-stainless construction; IP65 protection
- Pressure references: gauge; absolute; sealed gauge
- Outputs: 4–20 mA; 0–5 V; 1–5 V; 0–10 V; 1–10 V; 0.5–4.5 V
- Accuracy: 0.5 % FS; repeatability/hysteresis: 0.1 % FS
- Response time ≤ 2 ms (to 90 % FS)
- Strong shock/vibration resistance (IEC 60068-2-6/-64/-27)
- EMC: IEC 61000-6-2 (immunity); IEC 61000-6-3 (emissions)
- Intrinsically safe option Ex ia IIC T4
- Wide ranges from 0–0.35 bar to 600 bar



QLS-UNIVERSAL 2200

Description

Piezoresistive, diffused-silicon pressure transducer with an oil-isolated 316L stainless-steel diaphragm and integrated amplification. It provides standard current or voltage outputs for direct connection to PLCs and indicators. The all-stainless construction, IP65 protection and robust EMC design maintain stable measurement in industrial environments. Gauge, absolute or sealed-gauge references are available across ranges from 0–0.35 bar to 600 bar. Typical uses include pneumatic and hydraulic systems, general machinery, energy and environmental equipment, and non-invasive medical devices.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	0–0.35 bar; 0–0.7 bar; 0–1 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; 0–400 bar; 0–600 bar
Pressure reference	Gauge; Absolute; Sealed gauge
Accuracy	±0.5 % FS
Hysteresis & repeatability	Hysteresis 0.1 % FS; Repeatability 0.1 % FS
Temp. drift	±2 % FS (0–60 °C) at 0–0.35 bar; ±1.5 % FS (–20...85 °C) other ranges
Response time	≤ 2 ms (to 90 % FS)
Ambient temp.	–20...85 °C
Medium temp.	–25...85 °C
Storage temp.	–40...125 °C
EMC-interference	IEC 61000-6-3
EMC-immunity	IEC 61000-6-2
Insulation resistance	≥ 100 MΩ at 250 V DC
Vibration resistance	Sine: 20 g, 25 Hz–2 kHz; Random: 7.5 grms, 5 Hz–1 kHz
Shock resistance	20 g / 1 ms; free fall 1 m
Protection	IP65
Wetted Parts	316L stainless steel
Net weight	220–360 g
Size of hexagon	27 mm
Approvals/Certification	CE, UKCA, RoHS
Electrical Outputs	4–20 mA; 0–5 V; 1–5 V; 0–10 V; 1–10 V; 0.5–4.5 V
Process connections	M20×1.5; G1/2; G1/4; M14×1.5; NPT1/4; R1/4; NPT1/2; M12×1.5; R1/2; G1/8; G3/8; M10×1
Anti-Vibration	Yes (per IEC 60068-2-6/-64)
Overpressure/Burst Pressure	150 % FS typical; 200 % FS at highest range
Housing Material	Stainless steel
Electrical connections	DIN 43650; M12; Cable outlet
Power Supply	12–30 V DC (current/voltage outputs); 5 V DC (0.5–4.5 V output)

Measuring Range

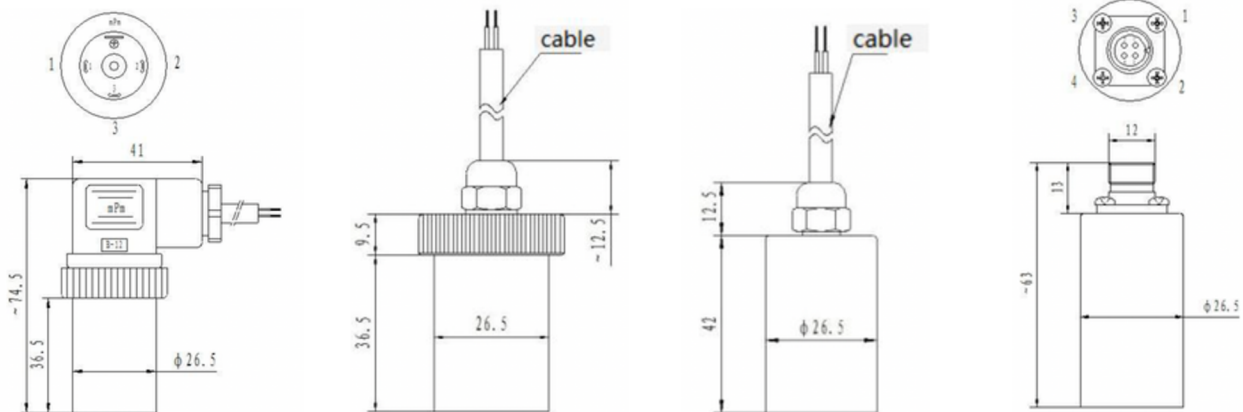
Range Code	Measuring Range	Pressure Reference	Overpressure	Burst Pressure
01	0-0.35 bar	GP/AP	150%FS	500%FS
02	0-0.7 bar	GP	150%FS	500%FS
03	0-1 bar	GP/AP	150%FS	300%FS
04	0-2.5 bar	GP/AP	150%FS	300%FS
05	0-4 bar	GP/AP	150%FS	300%FS
06	0-6 bar	GP/AP	150%FS	300%FS
07	0-10 bar	GP/AP/SP	150%FS	300%FS
08	0-16 bar	GP/SP	150%FS	300%FS
09	0-25 bar	GP/SP	150%FS	300%FS
10	0-40 bar	SP	150%FS	300%FS
11	0-60 bar	SP	150%FS	300%FS
12	0-100 bar	SP	150%FS	300%FS
13	0-160 bar	SP	150%FS	300%FS
14	0-250 bar	SP	150%FS	300%FS
15	0-400 bar	SP	150%FS	300%FS
16	0-600 bar	SP	150%FS	200%FS

Output Signals

Code	Output	Power Supply
I4	4-20 mA	12-30 VDC
V5	0-5 V	12-30 VDC
V1	1-5 V	12-30 VDC
VX	0-10 V	12-30 VDC
VY	1-10 V	12-30 VDC
VR	0.5-4.5 V ratiometric	5 VDC

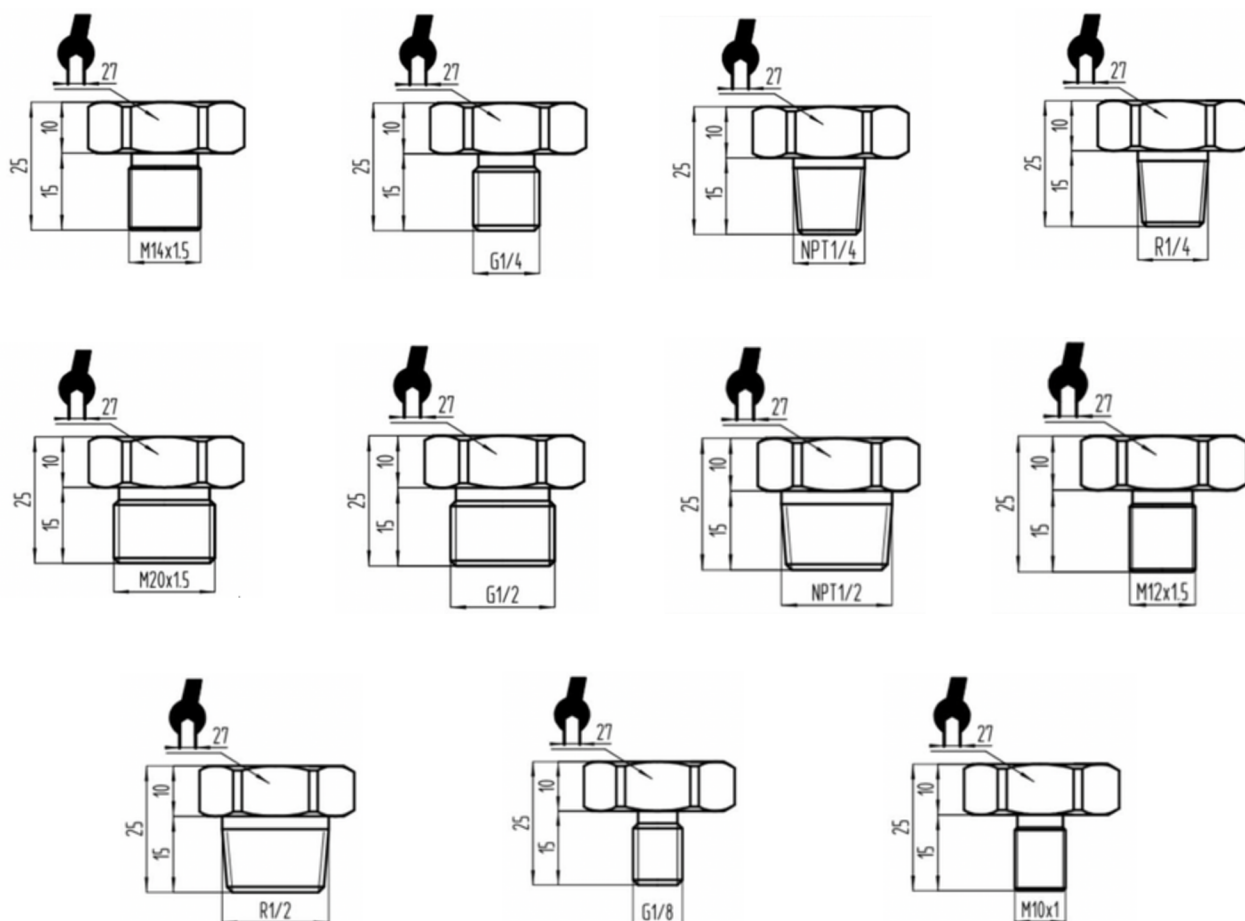
Electrical Connections

2-wire current (I4)	Pinout
E5 - DIN43650	Pin 1: Supply +; Pin 2: Current output
E6 - DIN43650 with cable	Red: Supply +; Green: Current output
E1 - Cable outlet	Pin 1: Supply +; Pin 2: Current output
E2 - M12	Pin 1: Supply +; Pin 2: Current output
3-wire voltage (V5/V1/VX/VY/VR)	Pinout
E5 - DIN43650	Pin 1: Supply +; Pin 2: Ground; Pin 3: Voltage output
E6 - DIN43650 with cable	Red: Supply +; Green: Ground; Yellow: Voltage output
E1 - Cable outlet	Pin 1: Supply +; Pin 2: Ground; Pin 3: Voltage output
E2 - M12	Pin 1: Supply +; Pin 2: Ground; Pin 3: Voltage output



Process Connections/Drawings

Code	Thread / Port
P1	M20x1.5-6g
P2	G1/2
P3	G1/4
P4	M14x1.5
P5	NPT1/4
P6	R1/4
P7	NPT1/2
P8	M12x1.5
P9	R1/2
P10	G1/8
P11	M10x1



Order Guide

Segment	Your Code	Options
Product family	QLS-UNIVERSAL 2200	QLS-UNIVERSAL 2200
Range	01 ... 16	See "Measuring range & accuracy" (Range code)
Pressure Reference	GP / AP / SP	GP = Gauge; AP = Absolute; SP = Sealed
Output	I4 / V5 / V1 / VX / VY / VR	See Output table
Process Connection	P1 ... P11	See Process Connections
Electrical Connection	E1 / E2 / E5 / E6	See Electrical Connections

Ordering Example 0-16 bar sealed gauge, 4-20 mA, G1/4, M12

Family	Range	Ref	Output	Process	Electrical
QLS-UNIVERSAL 2200	07	SP	I4	P3	E2

Notes

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