

QPress Pressure Transducer — QOM-AUTO 2100 Series

Automotive-grade ceramic pressure transducer, 5–100 bar, IP67

Certifications

Quality Lab Solutions data sheet R4



Applications

- Automotive braking
- Engine oil and intake systems
- Automotive air-conditioning
- New-energy vehicle thermal management
- Air compressors
- Water pumps
- Intelligent pressure cooker

Special Features

- Ceramic capacitive measuring cell for corrosion resistance and stability
- Sealed gauge reference
- Outputs: 0–5 V or 4–20 mA
- Fast response < 1 ms
- Operating temperature –40 to 125 °C
- IP67 protection
- SS304 housing; ceramic sensor element
- Parker 3-pin electrical connector
- EMC compliant to IEC 61326-1; ESD/EFT/surge immunity



QOM-AUTO 2100

Description

Compact automotive pressure transducer using a ceramic capacitive measuring cell. The device provides stable measurement across common drivetrain and thermal-management duties with sealed-gauge referencing. A stainless-steel 304 housing and IP67 sealing support harsh under-bonnet environments, whilst 0–5 V or 4–20 mA outputs integrate with ECU or PLC inputs. Full temperature compensation maintains accuracy over –40 to 125 °C, and EMC design ensures reliable operation in vehicles and compact machinery.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	0–5 to 0–100 bar
Pressure reference	Sealed gauge
Accuracy	±0.5 % FS
Hysteresis & repeatability	Hysteresis ≤ ±0.1 % FS; Repeatability ≤ ±0.1 % FS
Temp. drift	Ranges ≤ 0.035 bar: ±2 % FS (0–60 °C); others: ±1.5 % FS (–20 to +85 °C)
Response time	< 1 ms (to 90 % FS)
Service life	≥ 1×10 ⁶ cycles
Ambient temp.	–40 to 125 °C
Medium temp.	–40 to 125 °C
Storage temp.	–40 to 150 °C
EMC-interference	IEC 61326-1 Class B (emissions)
EMC-immunity	IEC 61000-4-2 (ESD); IEC 61000-4-3 (RF field); IEC 61000-4-4 (EFT); IEC 61000-4-5 (surge)
Insulation resistance	> 100 MΩ @ 250 VDC
Vibration resistance	10 g RMS (20–2000 Hz)
Shock resistance	100 g, 11 ms
Protection	IP67
Wetted Parts	Ceramic sensor; SS304
Net weight	150–180 g
Size of hexagon	24 mm
Approvals/Certification	CE, UKCA, RoHS
Electrical Outputs	0–5 V; 4–20 mA
Process connections	Customised (to order)
Anti-Vibration	10 g RMS (20–2000 Hz)
Overpressure/Burst Pressure	200 % FS
Housing Material	SS304
Electrical connections	Parker 3-pin connector
Power Supply	5 V (voltage output); 12–36 V (current output)

Measuring Range

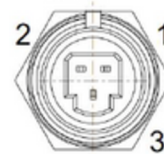
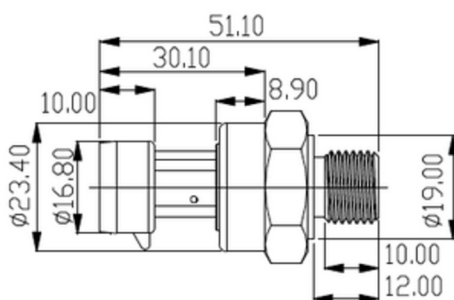
Range Code	Measuring Range	Pressure Reference	Overpressure	Burst Pressure
01	0-5bar	SP	200%FS	300%FS
02	0-100bar	SP	200%FS	300%FS

Output Signals

Code	Output	Power Supply
I4	4-20 mA (2-wire)	12-36 VDC
V5	0-5 V	5 VDC

Electrical Connections

2-wire current (I4)	Pinout
E4 - Parker 3-pin	Pin 1/Red: Supply +; Pin 2/Black: Current output; Pin 3/White: Not connected
3-wire voltage (V5/V1/VX/VY/VR)	Pinout
E4 - Parker 3-pin	Pin 1/Red: Supply +; Pin 2/Black: Ground; Pin 3/White: Voltage output



Order Guide

Segment	Your Code	Options
Product family	QOM-AUTO 2100	QOM-AUTO 2100
Range	01	See "Measuring range & accuracy" (Range code)
Pressure Reference	SP	SP = Sealed Pressure
Output	I4 / V5	See Output table
Process Connection	Custom	Specify Process connection
Electrical Connection	E4	See Electrical Connections

Ordering Example 0-5 bar sealed gauge, 4-20 mA, customised process, Parker 3-pin

Family	Range	Ref	Output	Process	Electrical
QOM-AUTO 2100	01	SP	I4	Custom	E4

Notes

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