

QPress Pressure Transducer - QOM-CR 3400 Series

Automotive common-rail pressure transducer, 5 V ratiometric, up to 2600 bar

Certifications

Quality Lab Solutions data sheet R4



Applications

- Automotive diesel common-rail systems
- ECU pressure feedback and control

Special Features

- Integrated compact design for ECU applications
- Withstand overloads and vibration; EMI-resistant electronics
- Small, lightweight construction; easy installation
- Process threads: M12×1.5, M18×1.5
- Voltage outputs: 0.5–4.5 V; 0.3–3 V; 1–4.2 V (5 V supply)
- $\geq 5,000,000$ full-pressure cycles; ≤ 10 ms response



QOM-CR 3400

Description

The PCM106 is an OEM automotive pressure transducer for high-pressure common-rail diesel systems. It provides a ratiometric voltage output for closed-loop ECU control and measures up to 2,600 bar. Typical process connections are M12×1.5 or M18×1.5. The sensor maintains ± 1 % FS accuracy with a total error of ± 2 % FS from -40 to 140 °C, a ≤ 10 ms response time and a service life of at least five million pressure cycles. Overload and burst ratings are 200 % FS and 300 % FS, respectively. Operating temperature is -40 to 140 °C and storage temperature -50 to 150 °C.

Specifications

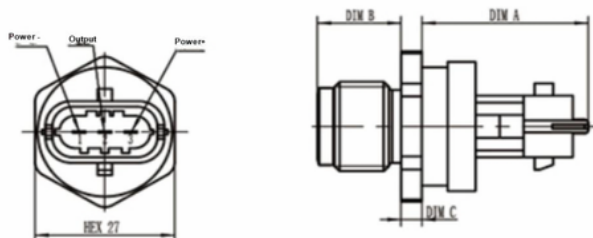
TECHNICAL SPECIFICATIONS	
Pressure range	0–1500 bar; 0–1800 bar; 0–2000 bar; 0–2200 bar; 0–2400 bar; 0–2500 bar; 0–2600 bar
Pressure reference	Gauge
Accuracy	±1 % FS
Temp. drift	Total error ±2 % FS (–40 to 140 °C)
Response time	≤ 10 ms
Service life	≥ 5,000,000 cycles
Ambient temp.	–40 to 140 °C
Medium temp.	–40 to 140 °C
Storage temp.	–50 to 150 °C
Insulation resistance	≥ 100 MΩ / 500 VDC
Vibration resistance	30 g (50–2000 Hz)
Shock resistance	1.5 m drop
Size of hexagon	27 mm (Hex)
Approvals/Certification	CE, UKCA, RoHS
Electrical Outputs	0.5–4.5 V; 0.3–3 V; 1–4.2 V
Process connections	M12×1.5; M18×1.5
Anti-Vibration	Yes
Overpressure/Burst Pressure	200 % FS
Housing Material	–40 to 140 °C
Electrical connections	1928403968; 1928404074; AMP 174357-2; SICMA2
Power Supply	5 V

Measuring Range

Range Code	Measuring Range	Pressure Reference	Overpressure	Burst Pressure
01	0-1500 bar	GP	200%FS	300%FS
02	0-1800 bar	GP	200%FS	300%FS
03	0-2000 bar	GP	200%FS	300%FS
04	0-2200 bar	GP	200%FS	300%FS
05	0-2400 bar	GP	200%FS	300%FS
06	0-2500 bar	GP	200%FS	300%FS
07	0-2600 bar	GP	200%FS	300%FS

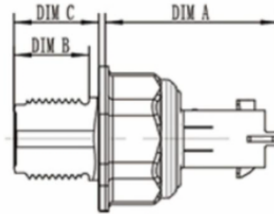
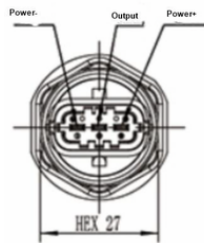
Output Signals

Code	Output	Power Supply
VR	0.5-4.5 V ratiometric	5 VDC
VP	0.3-3 V	5 VDC
VQ	1-4.2 V	5 VDC



Electrical Connections

3-wire voltage (VR/VP/VQ)	Pinout
E1 - 1928403968	Supply +; Ground; Voltage output
E2 - 1928403966	Supply +; Ground; Voltage output
E3 - 1928404074	Supply +; Ground; Voltage output
E4 - AMP 174357-2	Supply +; Ground; Voltage output
E5 - SICMA2	Supply +; Ground; Voltage output



Process Connections/Drawings

Code	Thread / Port
P1	M12x1.5-6g
P2	M18x1.5-6g

Order Guide

Segment	Your Code	Options
Product family	QOM-CR 3400 Series	QOM-CR 3400 Series
Range	01 ... 07	See "Measuring range & accuracy" (Range code)
Pressure Reference	GP	GP = Gauge
Output	VR / VP / VQ	See Output table
Process Connection	P1 / P2	See Process Connections
Electrical Connection	E1 / E2 / E3 / E4 / E5	See Electrical Connections

Ordering Example 0-1800 bar gauge, 0.5-4.5 V ratiometric, M12x1.5-6g, 1928403968 connector

Family	Range	Ref	Output	Process	Electrical
QOM-CR 3400 Series	02	GP	VR	P1	E1

Notes

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