QPress Pressure Transmitter - QOM-MVBRIDGE 5100 Series

OEM piezoresistive pressure transducer with mV bridge output; constant current 1.5 mA.

Certifications

CE UKCA RoHS compliant

Applications

- Static pressure measurement of gases and liquids
- Process and test stands
- Machine building
- HVAC and utilities
- General industrial instrumentation
- R&D and laboratory equipment.

Special Features

- OEM piezoresistive pressure transducer with stainless-steel wetted parts
- Millivolt bridge output (≥70 mV at 1.5 mA) for signal-conditioning front ends
- Constant current supply 1.5 mA; compensation 0…+50 °C
- Accuracy to ±0.1 % FS (min), typical ±0.25 % FS
- Response time ≤ 1 ms (10–90 %); insulation 100 MΩ, 100 V DC
- Process options: M20×1.5 or G1/2; flush and end-face seals

QOM-MVBRIDGE 5100

Description

Compact piezoresistive pressure transducer for OEM use. A stainless-steel 316L diaphragm with 304 housing provides broad media compatibility, delivering a stable millivolt bridge output under constant 1.5 mA excitation. Gauge, absolute and sealed gauge references are available across spans from 20 kPa up to 100 MPa, with an optional gauge negative range to −100 kPa. Typical accuracy is ±0.25 % FS, with fast ≤ 1 ms response and IP65 protection on cable versions.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	−100 kPa…0 kPa (gauge N option); 0–20 kPa…100 MPa depending on type (G/A/S)
Pressure reference	Gauge; Absolute; Sealed gauge
Accuracy	±0.1 % FS (min); ±0.25 % FS (typ.); ±0.5 % FS (max.)
Temp. drift	Zero: ±0.02 % FS/°C (typ.); ±0.04 % FS/°C (max.); Span: ±0.02 % FS/°C (typ.); ±0.04 % FS/°C (max.)
Response time	≤ 1 ms (10–90 %)
Operating temp.	−30 to +80 °C (plug); −10 to +70 °C (cable)
Compensation temp.	0-50℃
Storage temp.	−40 to +120 °C (plug); −20 to +85 °C (cable)
Insulation resistance	100 MΩ, 100 V DC
Protection	IP65 (cable connection)
Wetted Parts	Stainless steel 316L
Approvals/Certification	UKCA; CE; RoHS
Electrical Outputs	Millivolt bridge output (≥70 mV at 1.5 mA; ≥50 mV at 20 kPa span)
Process connections	M20×1.5 flush; G1/2 flush; M20×1.5 male; G1/2 male
Overpressure/Burst Pressure	200 % FS or 110 MPa (minimum applies)
Housing Material	Stainless steel 304
Electrical connections	Plug; Cable
Power Supply	Constant current 1.5 mA
Longterm Stability	≤ ±0.3 % FS/year

Measuring Range (Gauge Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
1	-1-0 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
2	0-0.2 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
3	0-0.35 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
4	0-0.7 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
5	0-1 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
6	0-2 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
7	0-3.5 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
8	0-7 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
9	0-10 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
10	0-20 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
11	0-35 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS

Measuring Range (Absolute Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
1	0-0.7 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
2	0-1 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
3	0-2 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
4	0-3.5 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
5	0-7 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
6	0-10 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
7	0-20 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
8	0-35 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
9	0-70 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS

Measuring Range (Sealed Pressure)

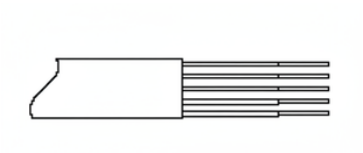
Range Code	Measuring Range	Overpressure	Accuracy
1	0-35 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
2	0-70 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
3	0-100 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
4	0-200 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
5	0-350 bar	200%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
6	0-700 bar	157%FS	±0.1%FS / ±0.25%FS / ±0.5%FS
7	0-1000 bar	110%FS	±0.1%FS / ±0.25%FS / ±0.5%FS

Output Signals

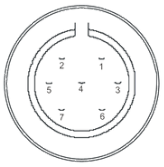
Code	Output	Power Supply	Load
MV	mV bridge (piezoresistive)	1.5 mA DC (constant current)	Signal ≥70 mV (≥50 mV @ 0-0.2 bar)

Electrical Connections

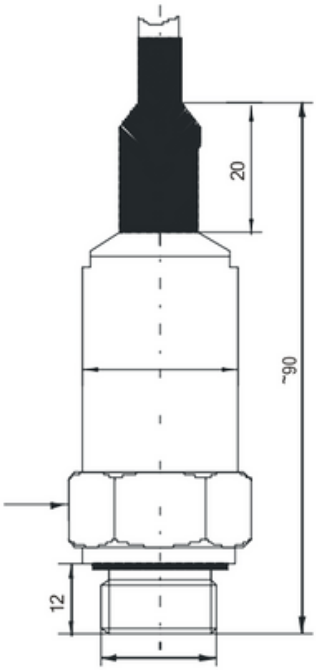
Code	Description	Pinout
E9	M12 A-coded 7-pin — Bridge output	Pin 3: +IN (Black); Pin 5: -IN (Yellow); Pin 1: -IN (White); Pin 2: +OUT (Red); Pin 4: -OUT (Blue)
E1	Cable outlet — Bridge output	Black: +IN; Yellow: -IN; White: -IN; Red: +OUT; Blue: -OUT

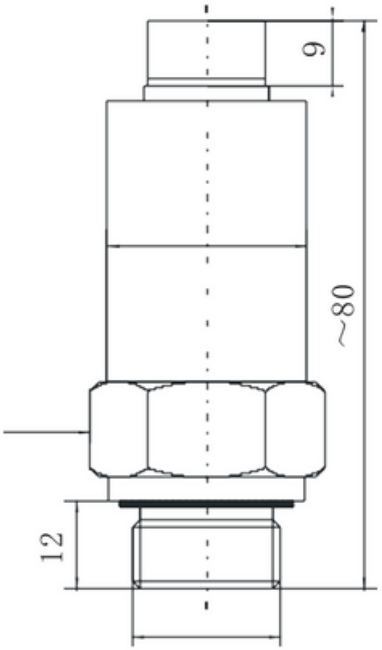


E1 – Cable outlet



E9 - M12 A-coded 7-pin





Power Supply

Code	Supply
PS1	1.5 mA DC (constant current excitation)

Construction Materials

Code	Diaphragm	Pressure Port	Housing
M1	SS 316L	SS 304	SS 304

Cable Material

Code	Description
N	None
P1	Polythene cable

Process Connections

Code	Thread / Port
P1	M20x1.5 flush structure
P2	G1/2 flush structure
P3	M20x1.5 male, end face seal
P4	G1/2 male, end face seal

Accuracy options

Code	Accuracy
AC1	±0.1%FS
AC2	±0.25%FS
AC3	±0.5%FS

Cable Length

Code	Length
N	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

Process Connection Seal

Code	Seal type
FK	Viton (FKM)
NA	None

Certification

Code	Description
NA	None stated
CE	CE (EMC)
RO	RoHS
UK	UKCA

Order Guide

Segment	Your Code	Options
Product family	QOM-MVBRIDGE 5100	QOM-MVBRIDGE 5100
Pressure Reference	GP / AP / SP	GP (gauge); AP (absolute); SP (sealed)
Range	01...NN	See Measuring range
Accuracy	AC1 / AC2 / AC3	See Accuracy options
Output	MV	mV bridge (piezoresistive)
Power Supply	PS1	1.5 mA DC constant current
Construction Materials	M1	SS316L diaphragm; SS304 port & housing
Process Connection	P1..P4	See Process Connections
Connection Seal	FK / NA	Viton (FKM) or none
Electrical Connection	E9 / E1	M12 A-coded 7-pin / Cable outlet
Cable Material	P1 / N	Polythene; None (plug)
Cable Length	L1D5	1.5 m
Certification	NA / CE / RO / UK	See certification

Ordering Example *Gauge 0-10 bar (Range Code 8), ±0.25%FS, mV bridge (1.5 mA), SS316L diaphragm & SS304 body, M20x1.5 male end face seal, Viton seal, M12 A-coded 7-pin, CE*

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
QOM-MVBRIDGE 5100	GP	8	AC2	MV	PS1	M1	P3	FK	E9	N	-	CE

Notes

Ensure media compatibility with wetted parts. Torque depends on gasket, mating material and lubrication.
Customisation available please contact us with your query.