

QPress Pressure Transmitter – QOM-DURA 1300 Series

Industrial piezoresistive transmitter with >100 million cycles endurance and temperature measurement options

Certifications

Quality Lab Solutions data sheet R4



Applications

- Critical industry
- Petroleum
- Chemical
- Metallurgy
- Power
- Hydrology/Agriculture
- Harsh process environments
- Fuel storage & transport

Special Features

- Endurance >100 million cycles (10–90 %FS, 25 °C)
- Safe overload 200 %FS; burst pressure 500 %FS
- Outputs: 4–20 mA, 0–5 V, 0.5–5 V, 0–10 V, 0.5–4.5 V, 4–20 mA + Temp, dual 4–20 mA (P+T), RS485 Modbus RTU
- Working temp (medium): –20...80 °C (corrosive) / –40...80 °C (non-corrosive)
- Storage: –40...125 °C (NBR) / –30...150 °C (FKM)
- Optional Temperature measurement, Between :–40...+100 °C
- Fully welded 316L stainless-steel construction; IP65–IP67



QOM-DURA 1300

Description

General-purpose industrial pressure transmitter using a piezoresistive sensor in a fully welded 316L stainless-steel body. Designed for long service life in harsh environments; endurance exceeds 100 million cycles. Available with multiple analogue outputs and RS485/Modbus. Medium working temperature is –20...80 °C for corrosive media or –40...80 °C for non-corrosive media; storage is –40...125 °C (NBR) or –30...150 °C (FKM). Also offers optional Temperature measurement between –40 - 100°C.

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	–1...1 bar; 0...0.1 to 0...1000 bar (see table)
Pressure reference	Gauge; Absolute; Sealed gauge
Accuracy	$\leq \pm 0.25$ %FS typical; $\leq \pm 0.1$ %FS (custom) at 25 °C (includes NLH&R)
Temp. drift	Total error band: 0...50 °C $\leq \pm 0.75$ %FS; –10...60 °C $\leq \pm 1.0$ %FS
Response time	≤ 100 ms
Service life	>100 million cycles (10–90 %FS, 25 °C)
Medium temp.	–20...80 °C (corrosive); –40...80 °C (non-corrosive)
Storage temp.	–40...125 °C (NBR); –30...150 °C (FKM)
EMC-interference	IEC 61000-6-3
EMC-immunity	IEC 61000-6-2; IEC 61000-4-5 L3 2 kV; IEC 61000-4-2 L4
Insulation resistance	>100 M Ω @ 100 VDC
Vibration resistance	± 20 g
Shock resistance	20 g/1 ms; free fall 1 m
Protection	IP65 to IP67
Wetted Parts	316L stainless steel
Size of hexagon	SW27
Approvals/Certification	UKCA; CE; ATEX Ex ia IIC T6 Ga ; RoHS
Electrical Outputs	4–20 mA; 0–5 V; 0.5–5 V; 0–10 V; 0.5–4.5 V; 4–20 mA + Temp; Dual 4–20 mA (P+T); RS485 Modbus RTU
Process connections	G1/4 male; G1/2 male; 1/8 NPT male; 1/4 NPT male; 1/2 NPT male/female (custom)
Anti-Vibration	Yes
Overpressure/Burst Pressure	Overload 200 %FS / Burst 500 %FS
Housing Material	316L stainless steel
Electrical connections	DIN43650; M12; Cable
Power Supply	4–20 mA (7–30 V); 4–20 mA+HART (12–30 V); 0–5 V (8–30 V); 0–10 V (13–30 V); 0.5–4.5 V (5 V $\pm 5\%$); RS485 (7–30 V); 4–20 mA+Temp (12–30 V); Dual 4–20 mA (12–30 V)

Measuring Range (Gauge Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
01	–1...+0.65 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
02	–1...+1.25 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
03	0–1 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
04	0–2 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
05	0–3 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
06	0–5 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
07	0–6 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
08	0–10 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
09	0–16 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
10	0–20 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
11	0–25 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
12	0–30 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
13	0–35 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
14	0–40 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
15	0–50 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
16	0–60 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
17	0–70 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS
18	0–100 bar	200%FS	$\pm 0.5\%$ FS / $\pm 0.25\%$ FS / $\pm 0.1\%$ FS

Range Code	Measuring Range	Overpressure	Accuracy
19	0-160 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
20	0-200 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
21	0-250 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
22	0-300 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
23	0-350 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
24	0-400 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
25	0-500 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
26	0-600 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
27	0-1000 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS

Measuring Range (Absolute Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
01	0...1.65 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
02	0...2.25 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
03	1-2 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
04	1-3 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
05	1-4 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
06	1-6 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
07	1-7 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
08	1-11 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
09	1-17 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
10	1-21 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
11	1-26 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
12	1-31 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
13	1-36 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
14	1-41 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
15	1-51 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
16	1-61 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
17	1-71 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
18	1-101 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
19	1-161 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
20	1-201 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
21	1-251 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
22	1-301 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
23	1-351 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
24	1-401 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
25	1-501 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
26	1-601 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
27	1-1001 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS

Measuring Range (Sealed Pressure)

Range Code	Measuring Range	Overpressure	Accuracy
01	-1...+0.65 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
02	-1...+1.25 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
03	0-1 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
04	0-2 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
05	0-3 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
06	0-5 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
07	0-6 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
08	0-10 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS

Range Code	Measuring Range	Overpressure	Accuracy
09	0-16 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
10	0-20 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
11	0-25 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
12	0-30 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
13	0-35 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
14	0-40 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
15	0-50 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
16	0-60 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
17	0-70 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
18	0-100 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
19	0-160 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
20	0-200 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
21	0-250 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
22	0-300 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
23	0-350 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
24	0-400 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
25	0-500 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
26	0-600 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS
27	0-1000 bar	200%FS	±0.5%FS / ±0.25%FS / ±0.1%FS

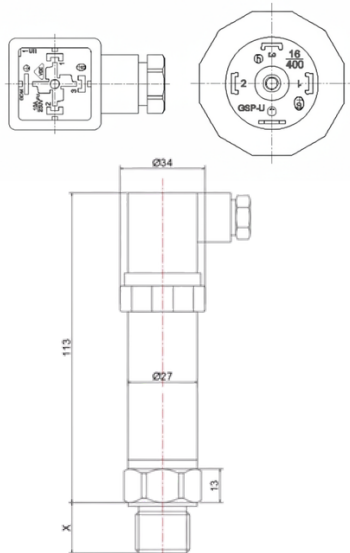
Output Signals

Code	Output	Power Supply	Load	Temp range
I4	4-20 mA (2-wire)	7–30 / 12–30 VDC	(U-10)/0.02 Ω	-
V5	0-5 V (3-wire)	8–30 VDC	>100 kΩ	-
VX	0-10 V (3-wire)	13–30 VDC	>100 kΩ	-
VN	0.5-4.5 V (3-wire, non-ratiometric)	5 VDC ±5%	>100 kΩ	-
E55	4–20 mA + Temperature (Ω/PT100)	12–30 V	-	-40...+100 °C
E22	Double 4–20 mA (P + Temp)	12–30 V	-	-40...+100 °C
RS	RS485 MODBUS RTU	7-30VDC	-	-40...+100 °C

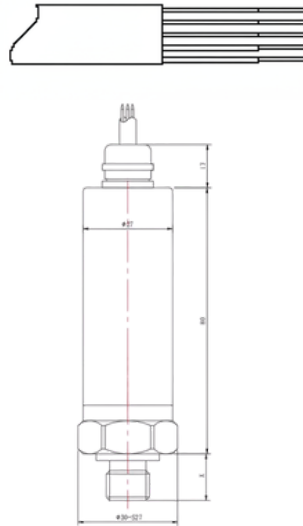
Electrical Connections

Code	Description	Pinout
E5	DIN 43650 (Hirschmann)	2-wire current (I4): 1 U+/Red; 2 Iout(U-)/Green; 3 NC; 4 Earth/Black 3-wire voltage (V5/VX/VN): 1 U+/Red; 2 U-/Black; 3 Vout/Green; 4 Earth
E2	M12 4-pin	2-wire current (I4): 1 U+/Brown; 2 Iout(U-)/White; 3 NC; 4 Earth/Black 3-wire voltage (V5/VX/VN): 1 U+/Brown; 2 Vout/White; 3 U-/Blue; 4 Earth/Black
E1	Cable outlet	2-wire current (I4): Red U+; Green Iout(U-); Black Earth 3-wire voltage (V5/VX/VN): Red U+; Green Vout; Black U- 4–20 mA + Temp(E55): Red U+; Green Signal+(Pressure); Yellow PT100A; Blue PT100B; Black U-/Earth - RS485 RTU Modbus(RS): Red U+; Black U-; Green RS485A; Blue RS485B; Yellow GND

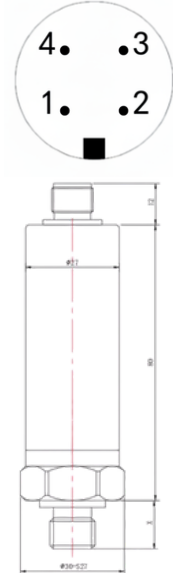
E5 – DIN 43650



E1 – Cable outlet



E2 – M12



Power Supply

Code	Supply
PS1	7–30 VDC
PS2	12–30 VDC
PS3	8–30 VDC
PS4	13–30 VDC
PS5	5 VDC ±5%

Construction Materials

Code	Diaphragm	Pressure Port	Housing
M1	316L stainless steel	316L stainless steel	316L stainless steel

Accuracy options

Code	Accuracy
A05	±0.5%FS
A025	±0.25%FS
A01	±0.1%FS (custom)

Application

Code	Description
C	Anti-corrosive Type
X	Withstand Xylene
F	Flush diaphragm
N	Standard Type
O	Oxygen services
FF	Fuel Filter

Certification

Code	Description
CE	EMC/CE
AT	ATEX Ex ia IIC T6 Ga
UK	UKCA
RO	RoHS

Cable Length

Code	Length
CL000	0 m
CL001	1 m
CL002	2 m

Cable Material

Code	Description
C-PVC	PVC
C-PTFE	PTFE
C-PUR	PUR
C-PE	PE

Fill Fluids

Code	Description
FF-O2	Fluorocarbon oil (O2-compatible)
FF-OL	Olive oil
FF-LT	Lowest temperature oil (-55 °C)

Accessory

Code	Description
0006	Attached LED indicator
0007	Attached LCD indicator
0003	Terminal box (IP67, vented)
0025	Damper (against pressure peak)
0008	Liquid level display control device

Process Connections

Code	Thread / Port
P06	G1/4 male
P09	G1/2 male
P13	1/2 NPT male
P26	1/4-18 NPT female
P03	1/4 NPT male
P01	1/8 NPT male

Order Guide

Segment	Your Code	Options
Product family	QUP-DURA 1300	QUP-DURA 1300
Pressure Reference	GP / AP / SP	GP=gauge; AP=absolute; SP=sealed
Range	01..27	See Measuring range
Accuracy	A05 / A025 / A01	See Accuracy options
Output	I4 / V5 / VX / VN / E55 / E22	See Output Signals
Power Supply	PS1 / PS2 / PS3 / PS4 / PS5	See Power Supply
Construction Materials	M1	See Construction Materials
Process Connection	P01 / P03 / P06 / P09 / P13 / P26	See Process Connections
Electrical Connection	E1 / E2 / E5	See Electrical Connections
Cable Material	C-PVC / C-PTFE / C-PUR / C-PE	See Cable Material
Cable Length	CL000 / CL001 / CL002	See Cable Length
Certification	CE / AT / RO / UK	See Certification
Fill Fluid	FF-O2 / FF-OL / FF-LT	See Fill Fluids
Applications/Other	C / X / F / N / O / FF	See Applications / Other Options
Accessories	0006 / 0007 / 0003 / 0025 / 0008	See Accessory

Ordering Example Gauge -1...+1.25 bar, $\pm 0.25\%FS$, 4–20 mA with temperature (-40...+100 °C), 12–30 VDC, 316L SS, G1/4 male, M12 4-pin, CE, fluorocarbon oil (O2), Oxygen services, LED indicator

Family	Ref	Range	Accuracy	Output	Power Supply	Construction Materials	Process Connection	Electrical Connection	Cable Material (E1 only)	Cable Length (E1 only)	Certification	Fill Fluid	Application	Accessories
QUP-DURA 1300	GP	02	A025	E55	PS2	M1	P06	E2	-	-	CE	FF-O2	O	0006

Notes

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