

QPress Pressure Transducer - QSF-CLAMP 3500 SERIES

Sanitary flush-diaphragm pressure transducer with IP65 protection and fast 2 ms response.

Certifications

Quality Lab Solutions data sheet R4



Applications

- Food and beverage processing
- Dairy plants
- Brewing and distilling
- Pharmaceutical and healthcare equipment
- Environmental processes
- Coatings and paint systems
- Polyurethane equipment
- Viscous or fouling media requiring flush measurement

Special Features

- Flush 316L diaphragm; sanitary, anti-fouling
- Pressure types: gauge, absolute, sealed gauge
- Ranges: 0–0.35 to 0–100 bar
- Outputs: 4–20 mA; 0–5 V; 1–5 V; 0.5–4.5 V; 0–10 V
- Accuracy 0.5 % FS; repeatability 0.1 % FS; response ≤ 2 ms
- IP65 protection; $\geq 1 \times 10^6$ pressure cycles
- Vibration 20 g (20–5000 Hz); shock 10 g/11 ms
- Electrical connections: DIN 43650 plug or 2088 terminal head
- Process connections: M20×1.5; G1/2; NPT 1/2; R 1/2; PT 1/2; ZG 1/2; G1; M30×1.5
- Cooling fins for improved performance with higher medium temperatures

Description

Compact sanitary pressure transducer with a flush 316L stainless-steel diaphragm. A diffused-silicon sensing element with oil-filled isolation accurately converts pressure to analogue signals for clean-in-place applications. The exposed diaphragm prevents fouling and enables reliable measurement of viscous media in food, beverage and pharmaceutical lines. Electronics are fully temperature compensated and protected to IP65, providing stable performance with fast 2 ms response and long-term durability ($\geq 1 \times 10^6$ cycles).



QSF-CLAMP-3500

Specifications

TECHNICAL SPECIFICATIONS	
Pressure range	0–0.35 bar; 0–0.7 bar; 0–1 bar; 0–1.6 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
Pressure reference	Gauge; Absolute; Sealed Gauge
Accuracy	0.5 % FS
Hysteresis & repeatability	Hysteresis 0.1 % FS; Repeatability 0.1 % FS
Temp. drift	1.5 % FS (–20 to 85 °C)
Response time	≤ 2 ms (to 90 % FS)
Ambient temp.	–20 to 85 °C
Medium temp.	–40 to 85 °C
Storage temp.	–40 to 120 °C
Insulation resistance	≥ 100 MΩ @ 250 VDC
Vibration resistance	20 g (20–5000 Hz)
Shock resistance	10 g / 11 ms
Protection	IP65
Wetted Parts	Stainless steel 316L (flush diaphragm)
Approvals/Certification	CE, UKCA, RoHS
Electrical Outputs	4–20 mA; 0–5 V; 1–5 V; 0.5–4.5 V; 0–10 V
Process connections	M20×1.5; G1/2; NPT 1/2; R 1/2; PT 1/2; ZG 1/2; G1; M30×1.5
Anti-Vibration	Yes — rated to 20 g (20–5000 Hz)
Overpressure/Burst Pressure	Overload 150–300 % FS (range-dependent); Burst 300–500%FS (range-dependent)
Electrical connections	DIN 43650 plug; 2088 terminal head
Power Supply	12–30 V DC (4–20 mA); 12–24 V DC (voltage outputs)

Measuring Range

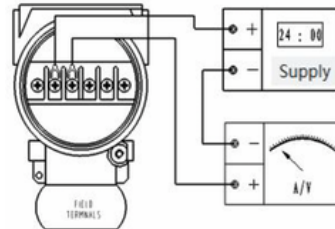
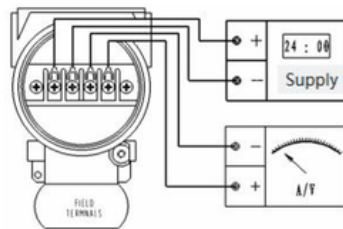
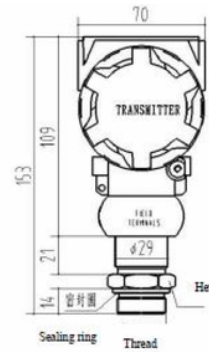
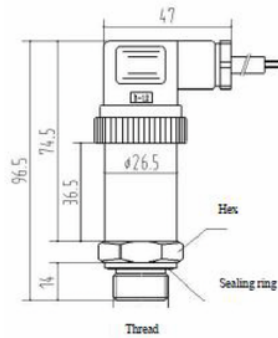
Range Code	Measuring Range	Pressure Reference	Overpressure	Burst Pressure
01	0-0.35 bar	GP	300%FS	500%FS
02	0-0.7 bar	GP	300%FS	500%FS
03	0-1 bar	GP/AP	200%FS	300%FS
04	0-1.6 bar	GP	200%FS	300%FS
05	0-2.5 bar	GP	200%FS	300%FS
06	0-4 bar	GP	200%FS	300%FS
07	0-6 bar	GP	200%FS	300%FS
08	0-10 bar	GP/SP	200%FS	300%FS
09	0-16 bar	GP/SP	200%FS	300%FS
10	0-25 bar	GP/SP	200%FS	300%FS
11	0-40 bar	GP/SP	150%FS	300%FS
12	0-60 bar	SP	150%FS	300%FS
13	0-100 bar	SP	150%FS	300%FS

Output Signals

Code	Output	Power Supply
I4	4-20 mA (2-wire)	12-30 VDC
V5	0-5 V	12-24 VDC
V1	1-5 V	12-24 VDC
VN	0.5-4.5 V non-ratiometric	12-24 VDC
VX	0-10 V	12-24 VDC

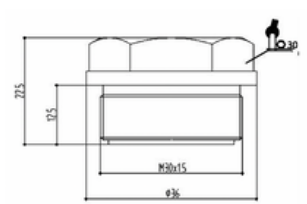
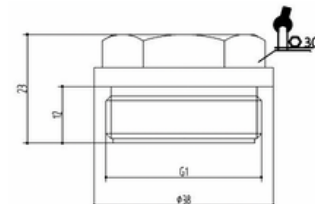
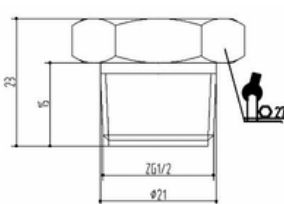
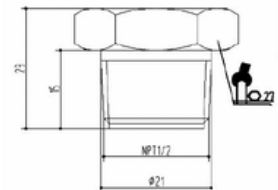
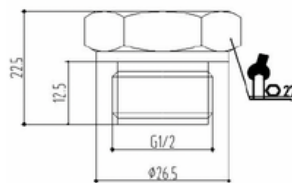
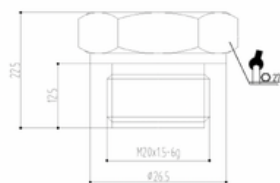
Electrical Connections

2-wire current (I4)	Pinout
E3 - 2088 housing	Red: Supply +; Green: Current output
E5 - DIN43650	
3-wire voltage (V5/V1/VN/VX)	Pinout
E3 - 2088 housing	Red: Supply +; Green: Ground; Yellow: Voltage output
E5 - DIN43650	



Process Connections/Drawings

Code	Thread / Port
P1	M20x1.5-6g
P2	G1/2
P3	NPT1/2 or Z1/2
P4	R1/2 or PT1/2 or ZG1/2
P5	G1
P6	M30x1.5



Order Guide

Segment	Your Code	Options
Product family	QSF-CLAMP 3500	QSF-CLAMP 3500
Range	01 ... 13	See "Measuring range & accuracy" (Range code)
Pressure Reference	GP / AP / SP	GP = Gauge; AP = Absolute; SP = Sealed
Output	I4 / V5 / V1 / VN / VX	See Output table
Process Connection	P1 ... P6	See Process Connections
Electrical Connection	E3 / E5	See Electrical Connections

Ordering Example 0-16 bar sealed gauge, 4-20 mA, G1/2, DIN43650

Family	Range	Ref	Output	Process	Electrical
QSF-CLAMP 3500	09	SP	I4	P2	E5

Notes

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