QPress Pressure Transducer — QHT-TEMP 1100 Series

High-temperature industrial pressure transducer with stainless-steel isolation diaphragm and rapid response.

Certifications

CE UKCA RoHS compliant

Applications

Process control; Aerospace; Chemical processes; Servo valves and transmission systems

Special Features

- Handles hot media directly; finned cooling structure for elevated process temperatures
- Pressure types: gauge, absolute, sealed gauge
- Outputs: 4–20 mA, 0–5 V, 1–5 V, 0–10 V, 1–10 V, 0.5–4.5 V (ratiometric)
- Accuracy ±0.5 % FS; repeatability and hysteresis ≤ ±0.1 % FS
- Very fast response ≤ 2 ms (to 90 % FS)
- Overload 150 % FS; burst up to 300 % FS (range-dependent)
- IP65 protection; EMC immunity to IEC 61000-6-2; emissions to IEC 61000-6-3
- Vibration 20 g (25 Hz–2 kHz); shock 20 g / 1 ms; free fall 1 m
- Ambient −20…+85 °C; media up to 350 °C with cooling fan selection (T3/T5/T7)

QHT-TEMP 1100

Description

The QHT-TEMP 1100 Series is a high-temperature pressure transducer for demanding process duties. A diffused-silicon sensing element with a 316L isolation diaphragm is combined with a finned heat-dissipation structure, allowing direct contact with hot media. The integrated signal conditioning provides industry-standard analogue outputs with low hysteresis and repeatability. EMC compliance, IP65 protection and proven vibration/shock robustness support long-term service in process control, chemical and aerospace applications.

Specificiations

TECHNICAL SPECIFICATIONS	
Pressure range	-1–0 bar (vacuum); 0–0.35 bar; 0–0.7 bar; 0–1 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; 0–160 bar; 0–250 bar; 0–400 bar; 0–600 bar
Pressure reference	Gauge; Absolute; Sealed gauge
Accuracy	±0.5 % FS
Hysteresis & repeatability	Hysteresis ≤ ±0.1 % FS; Repeatability ≤ ±0.1 % FS
Temp. drift	35 kPa ranges: ±2 % FS (0–60 °C); others: ±1.5 % FS (−20 to +85 °C)
Response time	≤ 2 ms (to 90 % FS)
Service life	≥ 1×10^6 cycles
Ambient temp.	−20 to +85 °C
Medium temp.	−30 to +105 °C (base); up to +350 °C with cooling fans T3/T5/T7
Storage temp.	−40 to +125 °C
EMC-interference	IEC 61000-6-3
EMC-immunity	IEC 61000-6-2
Insulation resistance	≥ 100 MΩ / 250 VDC
Vibration resistance	Sine 20 g (25 Hz–2 kHz); Random 7.5 grms (5 Hz–1 kHz)
Shock resistance	20 g / 1 ms; free fall 1 m
Protection	IP65
Wetted Parts	316L stainless steel
Net weight	220–360 g
Size of hexagon	HEX27
Approvals/Certification	CE, UKCA, RoHS
Electrical Outputs	4–20 mA; 0–5 V; 1–5 V; 0–10 V; 1–10 V; 0.5–4.5 V (ratiometric)
Process connections	M20×1.5; G1/2; G1/4; M14×1.5; NPT 1/4; R1/4; NPT 1/2; M12×1.5; R1/2; G1/8; M10×1
Anti-Vibration	Anti-vibration design per IEC 60068 series
Overpressure/Burst Pressure	150 % FS overload across ranges
Housing Material	Stainless steel
Electrical connections	DIN 43650; Hirschmann (with cable)
Power Supply	12–30 VDC (current/voltage outputs); 5 VDC (0.5–4.5 V ratiometric)

Measuring Range

Range Code	Measuring Range	Pressure Reference	Overpressure	Burst Pressure
01	0–0.35 bar	GP / AP	150 %FS	500 %FS
02	0–0.7 bar	GP	150 %FS	500 %FS
03	0–1 bar	GP / AP	150 %FS	300 %FS
04	0–1.6 bar	GP	150 %FS	300 %FS
05	0–2.5 bar	GP / AP	150 %FS	300 %FS
06	0–4 bar	GP / AP	150 %FS	300 %FS
07	0–6 bar	GP / AP	150 %FS	300 %FS
08	0–10 bar	GP / AP / SP	150 %FS	300 %FS
09	0–16 bar	GP / SP	150 %FS	300 %FS
10	0–25 bar	GP / SP	150 %FS	300 %FS
11	0–40 bar	SP	150 %FS	300 %FS
12	0–60 bar	SP	150 %FS	300 %FS
13	0–100 bar	SP	150 %FS	300 %FS
14	0–160 bar	SP	150 %FS	300 %FS
15	0–250 bar	SP	150 %FS	300 %FS
16	0–400 bar	SP	150 %FS	300 %FS
17	0–600 bar	SP	150 %FS	200 %FS

Output Signals

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

Electrical Connections

2-wire current (I4)	Pinout
E5 - DIN 43650	Pin 1: V+ (red); Pin 2: Iout (green)
E6 - Hirschmann with cable	Pin 1: V+ (red); Pin 2: Iout (green)
3-wire voltage (V5/V1/VX/VY/VR)	**Pinout**
E5 - DIN 43650	Pin 1: V+ (red); Pin 2: Ground (green); Pin 3: Vout (yellow)
E6 - Hirschmann with cable	Pin 1: V+ (red); Pin 2: Ground (green); Pin 3: Vout (yellow)

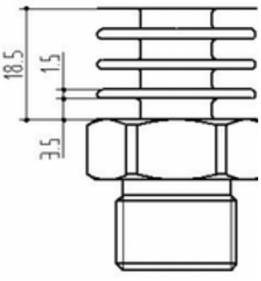
Process Connections/Drawings

Code	Thread / Port
P1	G1/4
P2	M14×1.5
P3	NPT1/4, Z1/4
P4	R1/4, PT1/4, ZG1/4
P5	M20x1.5
P6	G 1/2
P7	NPT1/2, Z1/2
P8	M12X1.5
P9	R1/2, PT1/2, ZG1/2
P10	G1/8
P11	M10X1

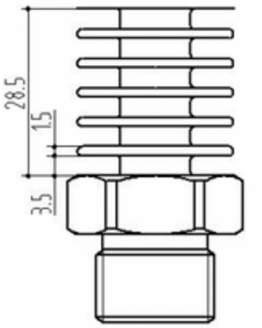
Cooling Module (finned cooler) selection

Code	Guidance
F3	3 fins (≤150 °C medium; depends on site ventilation)
F5	5 fins (150…250 °C medium; ventilation dependent)
F7	7 fins (250…350 °C medium; ventilation dependent)

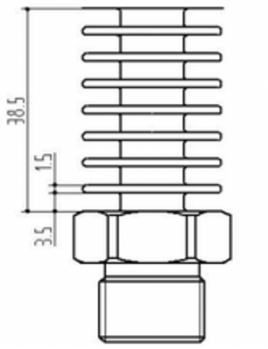
Cooling Fan Selection



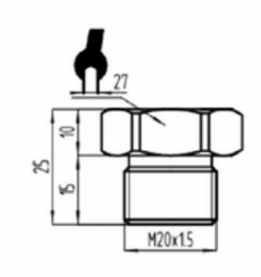
Medium Temperature ≤ 150°C (F3)

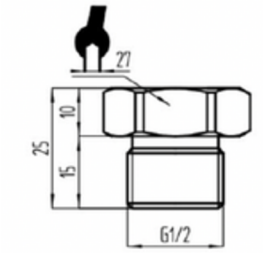


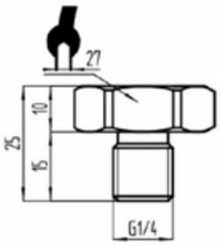
150°C < Medium Temperature ≤ 250°C (F5)

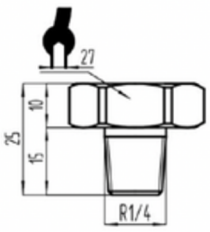


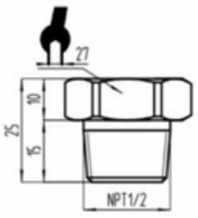
250°C < Medium Temperature ≤ 350°C (F7)

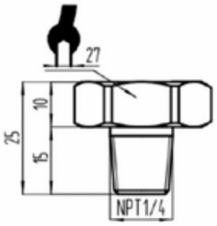


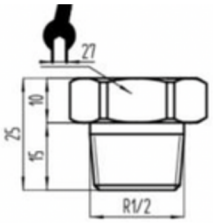


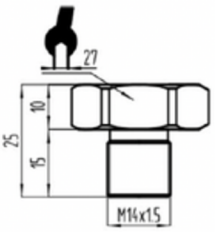


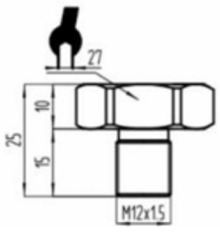


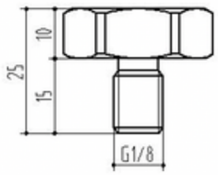


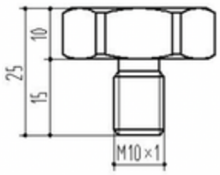












Order Guide

Segment	Your Code	Options
Product family	QHT-TEMP 1100	QHT-TEMP 1100
Range	01 ... 17	See “Measuring range & accuracy” (Range code)
Pressure Reference	GP / AP / SP	GP = Gauge; AP = Absolute; SP = Sealed
Output	I4 / V5 / V1 / VX / VY / VR	See Output table
Process Connection	P1 ... P11	See Process Connections
Electrical Connection	E5 / E6	See Electrical Connections
Cooling Module (Optional)	F3 / F5 / F7	See Cooling module table

Ordering Example *0–16 bar sealed gauge, 4–20 mA, G1/4, DIN 43650, 3-fin cooler.*

Family	Range	Ref	Output	Process	Electrical	Cooling
QHT-TEMP	09	SP	I4	P1	E1	F3

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