HT engineering

HT408-0

* Silicon-on-Sapphire sensor technology for outstanding performance
* Pressure ranges to 1,500 bar
* Unblemished track record of reliability
* Excellent corrosion resistance
* High strength titanium pressure port
* High resistance to overpressure and pressure transients
* ATEX/IECEx option available (includes M1 for mining applications)
* DNV GL certification available

DESCRIPTION

The HT408-0 pressure transmitter is designed to meet the operational requirements of demanding pressure measurement applications where good quality, quick delivery and value for money are of the highest priority.

The unique Silicon-on-Sapphire sensor technology provides outstanding performance and gives excellent stability over a wide temperature range.
Standard accuracy is ± 0.25% with a typical over pressure limit of twice the rated pressure range, this together with a selection of outputs and easy access for re-calibration affirm the excellent design.
All models are supplied with integral 1/4" BSP or alternative pressure connections.
The all titanium alloy wetted parts offer unbeatable corrosion resistance. Versions are also available offering IP67 sealing for installations requiring high levels of environmental protection.

Applications for the HT408-0 include the continuous monitoring of hydraulic systems with oil, gas, water and other process liquids, industrial, medical and aerospace industries. Also ideal for the measurement and control of pressure in refrigeration, pneumatic, compressor, HVAC and engine monitoring systems.

An optional ATEX and IECEx approved version of this product is available for explosion protection for flammable gases (zone 0), dusts (zone20) and mining areas (group I M1).

DNV GL rules for classification of ships, high speed & light craft and DNV GL offshore standards.

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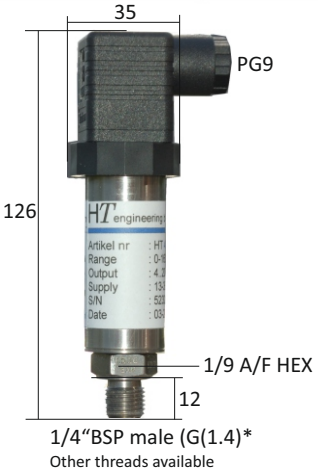
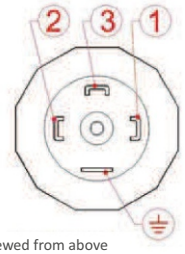
TECHNICAL DATA

Type:	HT408.xxxx.xxxA0	HT408.xxxx.xxx60	HT408.xxxx.xxx30	HT408.xxxx.xxx40
Sensor Technology	Silicon-on-Sapphire (SoS)			
Output signal:	4 - 20 mA (2 wire)	0 - 10 mV/V (4 wire)	0 - 5 V (4 or 3 wire)	0 -10 V (4 or 3 wire)
Supply Voltage:	10 - 36 VDC	10 VDC (5 - 15V)	13 - 30 VDC	13 - 30 VDC
Pressure Reference:	Gauge			
Protection of Supply Voltage:	Protected against supply voltage reversal up to 50 V (amplified versions)			
Standard Pressure Ranges (bar):	0-1 bar Vac; 0-0.5 bar; 0-1 bar; 0-2.5 bar; 0-6 bar; 0-10 bar; 0-16 bar; 0-25 bar; 0-100 bar; 0-250 bar; 0-400 bar; 0-600 bar; 0-1,000 bar; 0-1,500 bar (other ranges available)			
Standard Pressure Ranges (psi):	0-30 in Hg; 0-7.5 psi; 0-15 psi; 0-30 psi; 0-100 psi; 0-150 psi; 0-200 psi; 0-300 psi; 0-1,500 psi; 0-3,000 psi; 0-6,000 psi; 0-8,700 psi; 0-15,000 psi; 0-20,000 psi (other ranges available)			
Overpressure Safety:	4x for 0.5 bar range; 2x for ranges -1 bar to 600 bar; 1.5x for 1,000 bar range; 1.1x for 1,500 bar range			
Load Driving Capability:	4-20 mA: RL < [UB - 10 V] / 20 mA (e.g. with supply voltage (UB) of 36 V, max. load (RL) is 1300 Ω) 10 mV/V: n/a; 0-5 V: max. load RL > 5 KΩ; 0-10 V: max. load RL > 10 KΩ			
Accuracy NLHR:	≤ ±0.25 % of span BFSL (Optional higher accuracy version of ≤ ±0.1 % of span BFSL available)			
Zero Offset and Span Tolerance:	±0.5 %FS at room temperature (mV/V : ±1 mV); ±5 %FS (approx.) adjustment with easy access trimming potentiometers on amplified versions only			
Operating Ambient Temperature:	-40 °C to +85 °C (-40 °F to +185 °F)			
Operating Media Temperature:	-50 °C to +125 °C (-58 °F to +257 °F)			
Storage Temperature:	+5 °C to +40 °C (+41 °F to +104°F) Recommended Best Practice			
Temperature Effects:	±1.5 %FS total error band for -20 °C to +70 °C. Typical thermal zero and span coefficients ±0.015 %FS /°C			
ATEX/IECEx Approval (4-20 mA version only):	Ex II 1 G Ex ia IIC T4 Ga (zone 0) Ex II 1 D Ex ia IIIC T135 °C Da (zone 20) Ex I M 1 Ex ia I Ma (group 1 M1)	n/a	n/a	n/a
ATEX/IECEx Safety Values:	Ui = 28 V Ii = 119 mA Pi = 0.65 W Li = 0.1 µH Ci = 74 nF Temperature Range = -20 °C to +70 °C Max. cable length = 45 m	n/a	n/a	n/a
DNV GL Approval Class:	Temperature: D; Humidity: B; Vibration: B; EMC: B; Enclosure: C (contact sales for more information)			
Electromagnetic Capability:	Emissions: EN61000-6-3; Immunity: EN61000-6-2; Certification: CE Marked			
Insulation Resistance:	> 100 MΩ @ 50 VDC			
Response time 10-90 %:	1 mS			
Wetted Parts:	Titanium alloy (1/4" BSP male (G1/4) and 1/4" NPT male thread); other thread options typically Titanium alloy/316L stainless steel			
Pressure Media:	All fluids compatible with Titanium alloy (1/4" BSP male (G1/4) and 1/4" NPT male); other threads typically Titanium alloy/316L stainless steel			
Pressure Connection:	1/4" BSP male (G1/4); 1/4" NPT male; 1/4" BSP male (G1/2); 1/2" NPT male and 1/4" BSP female (others options available)			
Electrical Connection:	Mating socket EN175301-803 Form A (ex DIN43650) rated IP65 with PG9 cable entry (other options available)			





Viewed from above
with socket removed

ELECTRICAL CONNECTION (mA)

Pin. No.	2 wire
1	+ supply
2	4-20 mA signal
3	not fitted
⏚	to case

ELECTRICAL CONNECTION (V)

Pin. No.	4 wire	3 wire
1	- supply	common
2	+ supply	+ supply
3	+ output	+ output
⏚	- output	to case