



Temperature switch HTS 1200

Marine applications
DNV Approval
Programmable

Temperature probes

Accuracy 1 %



Features

- With ship approval
- With programmable switching points and switch-back points
- With integrated temperature probe
- Small and compact design
- Robust
- DNV approval:
 - Temperature: D
 - Vibration: B
 - Humidity: B
 - EMC: A
 - Enclosure: B
- Other approvals on request

Description

HTS 1200 with configurable switching points is an electric temperature switch, which has been especially developed for marine applications.

Temperatures within a range of -25 °C to +125 °C can be measured by means of this temperature sensor based on a PT 1000 with its corresponding electronic evaluation unit.

Due to a pressure resistance of 150 bar and excellent EMC characteristics, the HTS 1200 is ideal for use in harsh conditions.

HTS 1200 is available with 1 or 2 transistor switching outputs, which can be optionally defined with a normally closed or normally open contact. The switching points and switch-back points of the HTS 1200 can be programmed prior to installation or to commissioning. Programming is performed by means of the programming adapter ZBE-P1 and the included HE software tool.

Fields of application

The electronic pressure transmitter HTS 1200 has been especially designed for series use, e.g. in marine industry, where space is very limited.

Technical data

Input data					
Measuring range	-25..+125 °C				
Probe length	mm	16	40	125	146
Probe diameter	mm	6.7	6.7	8	8
Pressure resistance	bar	150	150	60	60
Mechanical connection	G1/4 A ISO 1179-2				
Tightening torque, recommended	20 Nm				
Parts in contact with fluid	Mech. connector: Stainless steel Seal: FKM				
Output data					
Output signal	1 or 2 transistor switching outputs (push-pull)				
Switching direction	N/C / N/O function (according to customer specifications)				
Switch points / switch-back points	Programmable ¹⁾				
Output load	≤ 250 mA per output				
Accuracy (at room temperature)	≤ ± 1.0 % FS typ. ≤ ± 2.0 % FS max.				
Rise time acc. to DIN EN 60751	t ₅₀ : ~ 4 s t ₉₀ : ~ 8 s				
Temperature drift	≤ ± 0.02 % FS / °C				
Environmental conditions / Approvals / Tests					
Operating temperature range ²⁾	-40..+85 °C / -25..+85 °C				
Storage temperature range	-40..+100 °C				
Fluid temperature range ²⁾	-40..+125 °C / -25..+125 °C				
EMC	2014/30/EU EN 61000-6-1 / 2 / 3 / 4				
 conformity	Available				
Vibration resistance acc. to DIN EN 60068-2-6 at 2..25 Hz 25..100 Hz	1.6 mm 4 g				
Protection type acc. to DIN EN 60529 ³⁾	IP 67 (depending on the electrical connection)				
Other data					
Supply voltage	9..35 V DC				
Residual ripple of the supply voltage	≤ 5 %				
Current consumption	≤ 20 mA with inactive switching outputs ≤ 270 mA with 1 active switching output ≤ 520 mA with 2 active switching outputs				
Weight	~ 60 g at a probe length of 16 mm ~ 100 g at other probe lengths				

Note: Reverse polarity protection of the supply voltage, excess voltage, override and short circuit protection are provided.

FS (Full Scale) = relative to complete measuring range

Surge protection unit required, provided by customer (e.g. Quint 4-PS/3AC/24DC/5-2904620 or 4-PS/1AC/24VDC/1,3PT-2909575 by Phönix)

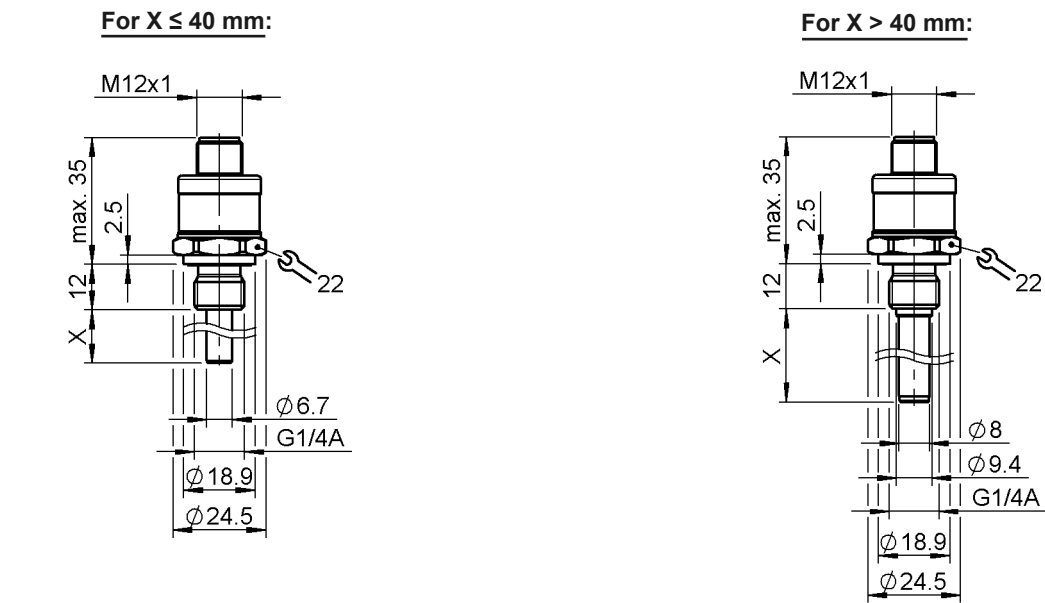
Limitation of the max. voltage peaks ≤ 60 V DC

¹⁾ Programming of the switching points should be carried out prior to installation or to commissioning on the ship.
Programming is performed by means of the programming adapter ZBE-P1 and the included HE software tool

²⁾ In the standard up to -25 °C with FKM seal, -40 °C on request

³⁾ With mounted mating connector in corresponding protection type

Dimensions



Pin connections

M12x1, 4-pin	Pin	Output: 1	Output: 2
	1	+U _B	+U _B
	2	n.c.	SP2
	3	0 V	0 V
	4	SP1	SP1

Model code

HTS 1 2 X X - PX - XXX - SXX

Mechanical connection
4 = G1/4 A ISO 1179-2

Electrical connection
6 = Plug connector M12x1, 4 pole (without mating connector)

Output signal
P = programmable
X = 1 1 switching output
2 2 switching outputs

Probe length
016; 040; 125; 146

Modification number
SXX = with ship approval

Accessories:
Appropriate accessories, such as mating connectors for the electrical connection, can be found in the Accessories brochure.

Note

The information in this brochure relates to the operating conditions and applications described.
For applications and/or operating conditions not described please contact the relevant technical department.
Subject to technical modifications.