HYDAC INTERNATIONAL



Temperature transmitter
ETS 4100-H

With HSI-sensor detection
For HMG 2500 / 30X0 / 4000

Temperature probe	Accuracy 0.4 %

Features

- Robust design
- Integrated temperature sensor
- Excellent EMC characteristics
- Designed for use with HYDAC measuring instruments

Description

The electronic temperature transmitter ETS 4100-H with HSI sensor detection was specially developed for use in conjunction with the HYDAC measurement devices HMG 5X0, HMG 2500, HMG 30X0 und HMG 4000.

For data transmission purposes, the ETS 4100-H is equipped with an HSI interface (HYDAC Sensor Interface).

Thanks to this, the HSI sensor is recognised fully automatically by the HYDAC measurement devices listed above and all necessary basic device settings are then undertaken automatically.

As is the case with all temperature transmitters of the ETS 4000 series, the ETS 4100-H is distinguished for its robust construction and its excellent EMC properties. Temperatures within a range of -25 °C to +100 °C can be measured by means of this temperature sensor based on a corresponding electronic evaluation unit.

Application fields

Wide field of applications in the mechanical engineering sector, such as:

- Hydraulics
- Pneumatics
- Cooler unit
- Compressors
- and much more

The temperature sensor is particularly used in systems where continuous, intelligent monitoring is necessary.

Measuring tasks in the service, maintenance, troubleshooting or test bench fields can be carried out, processed, displayed and evaluated especially in conjunction with the HYDAC measuring devices.

Technical data

Input data					
Measuring range	-25..+100 °C				
Probe length	mm	6	100	250	350
Probe diameter	mm	4.5	8	8	8
Pressure resistance	bar	600	125	125	125
Mechanical connection	G1/4 A ISO 1179-2 / external				
Tightening torque, recommended	20 Nm				
Parts in contact with fluid [1)]	Mech. connection: Stainless steel Seal: FKM				
Output data					
Output signal	**HSI** (**H**YDAC **S**ensor **I**nterface) Automatic sensor detection				
Accuracy (at room temperature)	≤ ± 0.4 % FS typ. ≤ ± 0.8 % FS max.				
Temperature drift (environment)	≤ ± 0.01 % FS / °C				
Rise time acc. to DIN EN 60751	t_{50}: ~ 4 s t_{90}: ~ 8 s				
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				
Vibration resistance	DIN EN 60068-2			≤ 25 g (0..500 Hz)	
Shock resistance	DIN EN 60068-2-27			20 g at 6 mm probe length < 20 g at all other probe lengths	
Protection type [3)]	DIN EN 60529			IP 67	
CE mark	Available				
Other data					
Supply voltage	Via HYDAC measuring units HMG 5X0, HMG 2500, HMG 30X0 or HMG 4000				
Weight (without connection head)	~ 200 g (sensor length 6 mm) ~ 235 g (sensor length 100 mm) ~ 280 g (sensor length 250 mm) ~ 315 g (sensor length 350 mm)				

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

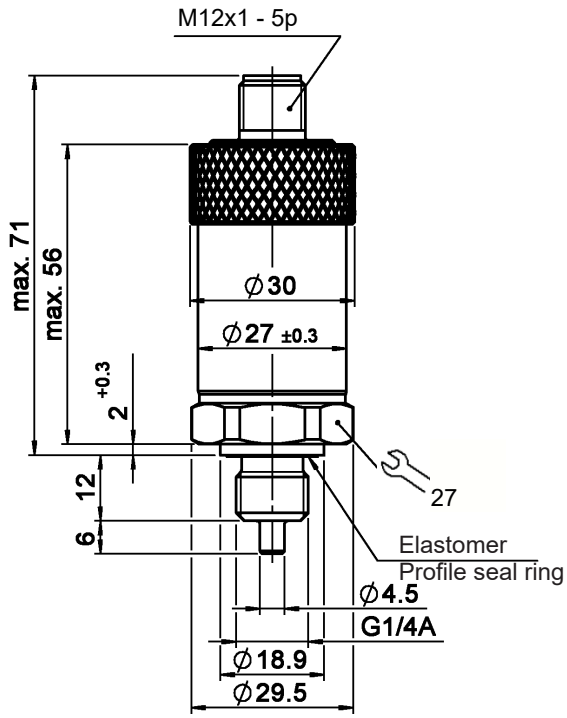
FS (**F**ull **S**cale) = relative to complete measuring range

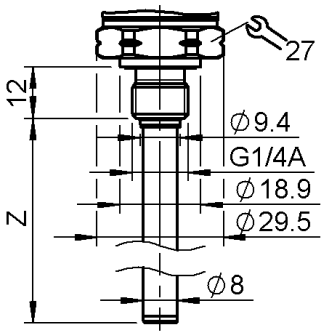
[1)] Other sealing materials on request

[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





Probe length (Z)
100 mm
250 mm
350 mm

Model code

ETS 4 1 4 8 - H - XXX - 000

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

Electrical connection
8 = connector M12x1, 5 pole (without mating connector)

Output signal
H = HSI (automatic sensor detection)

Probe length
006 = 6 mm
100 = 100 mm
250 = 250 mm
350 = 350 mm

Modification number
000 = Standard

Accessories:
Appropriate accessories, such as mating connectors for 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.

HYDAC ELECTRONIC GMBH
Hauptstrasse 27
D-66128 Saarbruecken
Phone: +49 (0)6897 509-1
Fax: +49 (0)6897 509-1726
Email: electronic@hydac.com
Website: www.hydac.com