



Digitise your temperature values

Temperature plug for hygienic applications

- Ideal for demanding control tasks thanks to 0.01K resolution
- Analogue and switching output as well as IO-Link
- Hygienic stainless steel housing with status LED
- Versatile: temperature measuring range from -100 to 600 °C



IP69K

IO-Link

ifm – close to you!

Measuring range	Factory settings	Order no.
M12 connections · Output function 4...20 mA Switching output · IO-Link 1.1		
-100...600 °C	-100...600 °C	TP2009
-100...300 °C	-50...300 °C	TP2008
-100...300 °C	-50...150 °C	TP2005
-100...300 °C	-10...150 °C	TP2001
-100...300 °C	0...100 °C	TP2007
-148...572 °F	0...300 °F	TP2003
M12 connections · Output function 0...10 V Switching output · IO-Link 1.1		
100...300 °C	0...100 °C	TP2017

Suitable probe sensors for hygienic applications can be found on our website at ifm.com

Convert & digitise your temperature measurement

The measured signal converter converts the resistance values of the temperature probes into standardised analogue and switching signals. Using IO-Link, the measured value can also be transmitted in digital form without conversion losses. This makes the temperature plug an important component for a digital retrofit for existing installations.

Versatile use

The transmitter has a connection for 4-wire Pt100 / Pt1000 measuring elements. It can either be screwed directly onto the measuring element or connected using a connecting cable. The small design is also suitable for rough applications, as the plug can be mounted in a safe place away from the probe.

Plug & play

If the temperature plug is connected to the measuring element, it recognises it automatically. If the scaling of the measuring range set at the factory meets the requirements of the application, no further settings are necessary. If necessary, the user can simply adjust the scaling via IO-Link.

Minimised installation and error sources

Using two standardised M12 connections, the installation complexity of the TP temperature plug is reduced to a minimum as compared to a common head / DIN rail transmitter. Sources of error, such as cable clamps, are eliminated.

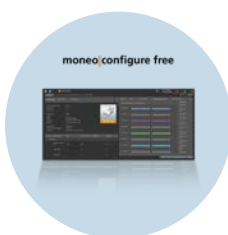
Individual adjustment

For consistently high accuracy, you can adjust the temperature plug after calibration to meet your specific requirements. For this purpose, the TP offers a wide range of setting options enabling perfect coordination of your system.

Common technical data		
Ambient temperature	[°C]	-25...80
Resolution	[K]	0.01 (TP2009: 0.1)
Display via IO-Link	[K]	±0.1
Precision via the analogue output		±0.1K ±0.1% of the scaled measuring span
Temperature coefficient (in % of the span per 10 K)		< 0.1
4-wire evaluation		Pt100 and Pt1000
Protection rating		IP69K

BEST FRIENDS

We reserve the right to make technical alterations without prior notice. · 11.2023
ifm electronic gmbh · Friedrichstr. 1 · 45128 Essen



moneo|configure free
Software for parameter setting of the IO-Link infrastructure



IO-Link masters
Field-compatible masters for use in hygienic areas



IO-Link interface
For setting the parameters of IO-Link devices on the PC



For further technical details, please visit: ifm.com/fs/TP2009