iTHERM CompactLine TM311

Digital compact thermometer

Compact, universal and digital

The iTHERM CompactLine TM311 digital compact thermo-meter with IO-Link is an easy to install, fit for purpose, IIoT ready temperature probe that fulfills the design and perfor-mance requirements for the life sciences, food & beverage and general process industries.

The instrument simplifies device specification, system integration, bills of material, drawings and inventory control by offering a self-detecting universal output (IO-Link and 4 to 20 mA) and numerous options for hygienic and indus-trial process connections in a single device.

Your benefit

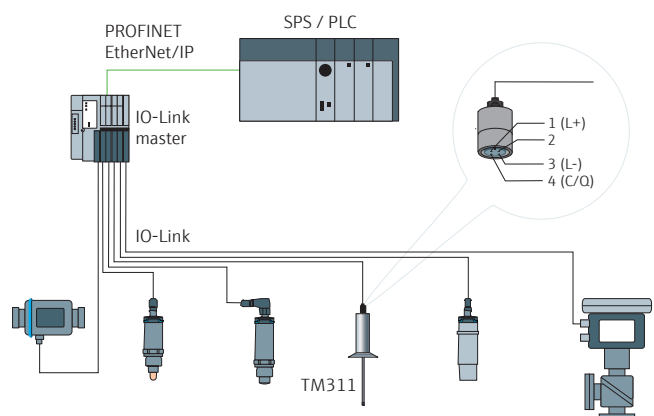| Value	Benefit	Feature
Cost reduction	• One product for all application requirements • Simple and fast device commissioning • Reduction of stockable items	• Self-detecting universal output • Automatable parameter download • TipSens technology drastically reduces the required immersion length
Increased process safety	• High precision of digital sensor signal • Availability of diagnostics and remote access	• Digital communication in IO-Link • Diagnostics according to NE 107
100 % compliance	• Best-in-class hygienic design • Fit for all applications	• International certifications and approvals • Large variety of process connections

Application

- Self-detecting universal output in IO-Link and 4 to 20 mA – a perfect device for OEMs to standardize for their business
- Tested and verified integration with systems from Rockwell Automation, Turck and Siemens
- Best-fit-product for hygienic and aseptic as well as industrial applications where size and price/performance matters

For more information please visit:
www.endress.com/tm311

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iTHERM CompactLine TM311 specifications
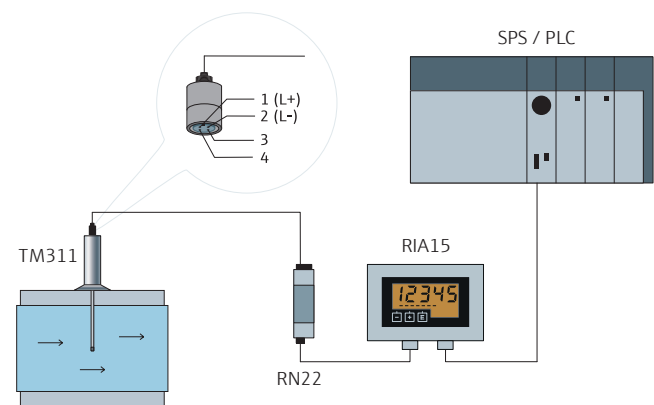
Temperature range:	-50 to 200 °C (-58 to 392 °F)
Pressure range:	up to 50 bar (725 psi)
Signal output:	Pt100, analog 4 to 20 mA, IO-Link, switch
Response time:	t_{90} = 2 s (direct contact) t_{90} = 3 s (with thermowell)
Accuracy:	≤ 0.48 °C (standard) ≤ 0.14 °C (transmitter-sensor matching)

System integration and services

The iTHERM CompactLine TM311 with integrated transmitter auto-detects connection settings and selects the correct output communication: IO-Link or 4 to 20 mA.

M12 connection with IO-Link communication mode

Related offering

System component	Feature
IO-Link master BL20	• Recommened reference component from Turck
FieldPort SFP20	• Device configuration with DeviceCare, FieldCare, Field Xpert

☑ Advantages of digital communication
- Digital process value
- Status and diagnostics
- No scaling
- Plug & play device exchange

M12 connection with 4 to 20 mA communication mode

Related offering

System component	Feature
Display unit RIA15	• Display of 4 to 20 mA values • Loop-powered
Active barrier RN22	• Galvanic signal barrier & transmitter power supply RN22
FieldPort SFP20	• Device configuration with DeviceCare, FieldCare, Field Xpert

Endress+Hauser Service
- Commissioning service ensures optimal startup
- Technical experts are always on call to support with product queries
- Calibration service

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