1-800-633-0405

**Endress+Hauser** **EH**
People for Process Automation

# TM311 iTHERM CompactLine Temperature Sensors/Transmitters

*Part No. TM311-P801/0*

*Part No. TM311-TLR0/0*

*Part No. TM311-TLR0/0TM311-TLV1/0*

The Endress+Hauser TM311 iTHERM® CompactLine conveniently combines a precision RTD sensing element and transmitter electronics in a single stainless steel temperature transmitter probe. Preconfigured for a process measuring range of 0 to +150 °C (32 to +302 °F), the TM311 can be used for a wide variety of temperature sensing applications. Several probe insertion lengths are available, and process connections include male NPT thread or 3-A approved sanitary clean in place tri-clamp. An M12 quick-disconnect provides electrical connection and can be connected to operate as a loop powered 4-20 mA output signal or with IO-Link communications that enable access to various temperature process variable, configuration, diagnostic, and logging parameters.

## Features

- Endress+Hauser iTHERM CompactLine RTD and transmitter electronics combined in a stainless steel probe
- Fast response time with Endress+Hauser TipSens RTD sensing element
- Preconfigured process measuring temperature range
- 4-20 mA or IO-Link communications that enable access to various temperature process variable, configuration, diagnostic, and logging parameters.
- 30, 50, 100, and 150mm probe insertion lengths
- Process connections include 1/4", 1/2" male NPT threads, or 3-A approved sanitary CIP tri-clamp
- M12 quick-disconnect electrical connection

**IO-Link**

CSA c US    CE

**NEED CABLES?**

*For a variety of cable options see our website www.AutomationDirect.com*

| Endress+Hauser TM311 Series iTHERM Temperature Sensor/Transmitter Selection | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| Part Number | Sensing Element | Temperature Range | Insertion Length | Probe Diameter | Process Connection | Output | Electrical Connection | Weight (lb) | Price |
| TM311-P801/0 | | | 30mm | | | | | 0.78 | $06n?7: |
| TM311-TLN8/0 | | | 50mm | | 1/4in male NPT | | | 0.79 | $06n?8: |
| TM311-T5U0/0 | | | 100mm | | | | | 0.80 | $06n?9: |
| TM311-TLP9/0 | | | 150mm | | | | | 0.81 | $06n?a: |
| TM311-ART9/0 | | | 30mm | | | | | 0.88 | $06n?b: |
| TM311-TLR0/0 | Pt100 RTD | 0 to 150ºC (32 to 302ºF) | 50mm | 6mm | 1/2in male NPT | 1-channel, 4-20mA / IO-Link | 4-pin M12 quick-disconnect | 0.88 | $06n?2: |
| TM311-2F91/0 | | | 100mm | | | | | 0.90 | $06n?3: |
| TM311-TLT0/0 | | | 150mm | | | | | 0.91 | $06n?4: |
| TM311-TLU6/0 | | | 30mm | | | | | 0.93 | $06n?5: |
| TM311-TLV1/0 | | | 50mm | | 1-1/2in sanitary tri-clamp | | | 0.93 | $06n?6: |
| TM311-TWH1/0 | | | 100mm | | | | | 0.95 | $06n?c: |
| TM311-TLX2/0 | | | 150mm | | | | | 0.95 | $06n?d: |

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# TM311 iTHERM CompactLine Temperature Sensors/Transmitters

| Endress+Hauser TM311 Series iTHERM Temperature Sensor/ Transmitter Information | | | | |
|---|---|---|---|---|
| Part Number | Drawing Links | Manufacturer Tech Specs | Manufacturer Quick Start | Manufacturer Manual |
| TM311-2F91/0 | PDF | PDF | PDF | PDF |
| TM311-ART9/0 | PDF | | | |
| TM311-P801/0 | PDF | | | |
| TM311-T5U0/0 | PDF | | | |
| TM311-TLN8/0 | PDF | | | |
| TM311-TLP9/0 | PDF | | | |
| TM311-TLR0/0 | PDF | | | |
| TM311-TLT0/0 | PDF | | | |
| TM311-TLU6/0 | PDF | | | |
| TM311-TLV1/0 | PDF | | | |
| TM311-TLX2/0 | PDF | | | |
| TM311-TWH1/0 | PDF | | | |

*For complete technical information and installation see Manufacturer Tech Specs and Manual links.*

## Wiring Information

IO-Link operating mode

1    Pin 1 - power supply 15 to 30 VDC
2    Pin 2 - not used
3    Pin 3 - power supply 0 VDC
4    Pin 4 - C/Q (IO-Link or switch output)
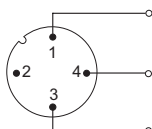
4 to 20 mA operating mode

1    Pin 1 - power supply 10 to 30 VDC
2    Pin 2 - power supply 0 VDC
3    Pin 3 - not used
4    Pin 4 - not used