

iTEMP TMT82, Transmitter HART

2-wire temperature transmitter.
Dual universal sensor input.
Galvanic isolation 2kV (input/output).
Application: RTD, TC, Ohm and mV.
::Highly reliable due to drift
detection and sensor back up.
::Optional also for safety critical applications
by means of SIL 2/3 acc. to IEC61508.

TMT82-**71115446**

SPK: TMM

**Basic model**

iTEMP TMT82, Transmitter HART

Approval:

- 8A ATEX IECEX II1G Ex ia IIC T6 Ga
- 8C FM+CSA IS, NI I/1+2/A-D
- AA Non-hazardous area
- B2 ATEX II3G Ex nA IIC T6
- B4 ATEX II1G Ex ia IIC T6, II3D
- B5 ATEX II3G Ex nA IIC T6, II3D
- B6 ATEX II2G Ex d T6, II2D Ex tb IIIC
- BA ATEX II1G Ex ia IIC T4/T5/T6
- BC ATEX II3G Ex ic IIC T6
- BF ATEX II2D Ex tb IIIC Db
- BG ATEX II3D Ex tc IIIC Dc
- C1 CSA IS, NI I / 1+2/A-D
- C3 CSA XP, NI, DIP I, II, III/1+2/A-G
- F1 FM IS, NI I / 1+2/A-D
- F3 FM XP, NI, DIP I, II, III/1+2/A-G
- GA EAC Ex ia IIC T6 Ga
- GD EAC Ex d IIC T6 Gb
- GR Non-hazardous area + EAC marking
- I6 IECEX Ex d T6 Gb, Ex tb IIIC Db
- IA IECEX Ex ia IIC T4/T5/T6
- IF IECEX Ex tb IIIC Db
- IN *IECEX Ex nA II T4/T5/T6
- NA NEPSI Ex ia IIC T6 Ga
- NN NEPSI Ex nA IIC T6 Gc
- TC *TIIS Ex ia IIC T6
- TN *TIIS Ex nA II T6

Communication; Output Signal:

- A HART; 4-20 mA, 2 channel

Electrical Connection:

- 1 Spring terminals, housing form B, DIN EN 50446
- 2 Screw terminals, housing form B, DIN EN 50446
- 3 Screw terminals, housing for DIN rail mounting 17.5mm

Field Housing:

- A W/o, mounting set DIN standard
- B W/o, mounting set US - M4 screws
- C W/o
- D TA30H, Alu, 2x M20x1.5, w/o display window, explosion-proof enclosure
- E TA30H, Alu, 2x M20x1.5, glass display window, explosion-proof enclosure
- F TA30H, Alu, 2x 1/2NPT, w/o display window, explosion-proof enclosure
- G TA30H, Alu, 2x 1/2NPT, glass display window, explosion-proof enclosure
- H TA30A, 2x M20x1.5, w/o display window, universal housing with hinged cover
- I TA30A, 2x M20x1.5, glass display window, universal housing with hinged cover

- J TA30A, 2x 1/2NPT, w/o display window, universal housing with hinged cover
- K TA30A, 2x 1/2NPT, glass display window, universal housing with hinged cover
- L TA30D, 2x M20x1.5, universal housing with hinged cover high
- M TA30D, 2x 1/2NPT, universal housing with hinged cover high
- N *TA30H, 316L, 2x M20x1.5, w/o display window, explosion-proof enclosure
- O *TA30H, 316L, 2x M20x1.5, glass display window, explosion-proof enclosure
- P TA30H, 316L, 2x 1/2NPT, w/o display window, explosion-proof enclosure
- Q TA30H, 316L, 2x 1/2NPT, glass display window, explosion-proof enclosure
- Y Special version, TSP-no. to be spec.

Configuration Universal Input:

- A1 Ch1: RTD 2-wire, Ch2: inactive
- A2 Ch1: RTD 2-wire, Ch2: RTD 2-wire
- A3 Ch1: RTD 2-wire, Ch2: RTD 3-wire
- A4 Ch1: RTD 2-wire, Ch2: TC
- B1 Ch1: RTD 3-wire, Ch2: inactive
- B2 Ch1: RTD 3-wire, Ch2: RTD 2-wire
- B3 Ch1: RTD 3-wire, Ch2: RTD 3-wire
- B4 Ch1: RTD 3-wire, Ch2: TC
- C1 Ch1: RTD 4-wire, Ch2: inactive
- C2 Ch1: RTD 4-wire, Ch2: TC
- D1 Ch1: TC, Ch2: inactive
- D2 Ch1: TC, Ch2: TC

Sensor Type Input 1:

- A1 Pt100, -200...850oC, min. span 10K, IEC60751 (a = 0.00385)
- A2 Pt200, -200...850oC, min. span 10K, IEC60751 (a = 0.00385)
- A3 Pt500, -200...500oC, min. span 10K IEC60751 (a = 0.00385)
- A4 Pt1000, -200...250oC, min. span 10K IEC60751 (a = 0.00385)
- B1 Pt100, -200...510oC, min. span 10K, JIS C1604-81 (a = 0.003916)
- C1 Ni100, -60...250oC, min. span 10K DIN 43760 (a = 0.006180)
- C2 Ni120, -60...250oC, min. span 10K DIN 43760 (a = 0.006180)
- D1 Pt50, -185...1100oC, min. span 10K, GOST 6651-94 (a = 0.003910)
- D2 Pt100, -200...850oC, min. span 10K GOST 6651-94 (a = 0.003910)
- D3 Ni100, -60...180oC, min. span 10K GOST 6651-94 (a = 0.006170)
- D4 Ni120, -60...180oC, min. span 10K GOST 6651-94 (a = 0.006170)
- D5 Cu50, -175...200oC, min. span 10K, GOST 6651-94 (a = 0.004280)
- E1 Cu50, -50...200oC, min. span 10K, OIML R84:2003/GOST 6651-94 (a=0.004260)
- E2 Cu100, -175...200oC, min. span 10K, GOST 6651-2009, (a = 0.004280)
- F1 Resist. transmitter 10...400Ohm, min. span 100Ohm
- F2 Resist. transmitter 10...2000Ohm, min. span 100Ohm
- F3 Voltage transmitter -20...100mV, min. span 5mV
- TA Type A, 0...2500oC, min. span 50K, IEC 584-1:2013
- TB Type B, 40...1820oC, min. span 500K IEC 584
- TC Type C (W5Re-W26Re), 0...2315oC, min. span 500K, ASTM E988/E230
- TD Type D (W3Re-W25Re), 0...2315oC, min. span 500K, ASTM E988/E230
- TE Type E, -270...1000oC, min. span 50K IEC 584
- TJ Type J, -210...1200oC, min. span 50K IEC 584
- TK Type K, -270...1372oC, min. span 50K IEC 584
- TL Type L, -200...900oC, min. span 50K DIN 43710
- TM Type L, -200...800oC, min. span 50K, GOST 8.585-2001
- TN Type N, -270...1300oC, min. span 50K IEC 584
- TR Type R, -50...1768oC, min. span 500K IEC 584
- TS Type S, -50...1768oC, min. span 500K IEC 584
- TT Type T, -260...400oC, min. span 50K IEC 584
- TU Type U, -200...600oC, min. span 50K DIN 43710

Sensor Type Input 2:

- A1 Pt100, IEC60751 (a = 0.00385)
- A2 Pt200, IEC60751 (a = 0.00385)
- A3 Pt500, IEC60751 (a = 0.00385)
- A4 Pt1000, IEC60751 (a = 0.00385)
- AA Inactive
- B1 Pt100, JIS C1604-81 (a = 0.003916)
- C1 Ni100, DIN 43760 (a = 0.006180)
- C2 Ni120, DIN 43760 (a = 0.006180)
- D1 Pt50, GOST 6651-94 (a = 0.003911)

- D2 Pt100, GOST 6651-94 (a = 0,003911)
- D3 Ni100, GOST 6651-94 (a = 0,006170)
- D4 Ni120, GOST 6651-94 (a = 0,006170)
- D5 Cu50, GOST 6651-94 (a = 0.004280)
- E1 Cu50, OIML R84:2003 6651- 94 (a = 0.004260)
- E2 Cu100, GOST 6651-2009, (a = 0,004280)
- F1 Resist. transmitter 10...400Ohm, min. span 10Ohm
- F2 Resist. transmitter 10...2000Ohm, min. span 10Ohm
- F3 Voltage transmitter -20...100mV, min. span 5mV
- TA Type A, IEC 584-1:2013
- TB Type B, IEC 584
- TC Type C (W5Re-W26Re), ASTM E988/E230
- TD Type D (W3Re-W25Re), ASTM E988/E230
- TE Type E, IEC 584
- TJ Type J, IEC 584
- TK Type K, IEC 584
- TL Type L, DIN 43710
- TM Type L, GOST 8.585-2001
- TN Type N, IEC 584
- TR Type R, IEC 584
- TS Type S, IEC 584
- TT Type T, IEC 584
- TU Type U, DIN 43710

Input; Interconnection:

- A1 PV = CH1; CH2 inactive
- A2 PV = CH1; SV = CH2
- A3 PV = difference; PV = CH1-CH2
- A4 PV = average; PV = (CH1+CH2)/2
- A5 Sensor backup; PV = CH1(or CH2)

>Display; Operating:

- E1 Meas.display; DIP-switch, pluggable

>Calibration:

- F1 Works calib. certificate 6-point, fixed
- F2 Works calib. certificate 6-point, free selectable

>>Service:

- H1 Configuration: alarm limit low
- H9 Special version, TSP-no. to be spec.

>>Additional Approval:

- L1 *OIML, allowable temp. range -30...120oC
- LA SIL conformity
- LE GL marine approval
- LU UL listed

>>Additional Option:

- MY Special version, TSP-no. to be spec.

>>Accessory Mounted:

- NA Attachment hinge, 304/1.4301

>>Accessory Enclosed:

- PA Mounting bracket wall, 316L
- PB Mounting bracket pipe, 316L diameter 1-2"

>Cable Gland; Temp.Range; Protect.Type:

- S1 Polyamide; -40...+100oC; IP68
- S2 Polyamide ATEX; -20...+95oC; IP68 for dust-Ex
- S3 Brass ATEX; -20...+130oC; IP68/NEMA4x for dust-Ex
- S4 2x Polyamide; -40...+100oC; IP68
- S5 2x Polyamide ATEX; -20...+95oC; IP68 for dust-Ex
- S6 2x brass ATEX; -20...130oC; IP68/ NEMA4x for dust-Ex
- SY Special version, TSP-no. to be spec.

>Firmware Version:

- 78 01.01.zz, HART 7, DevRev02
- 79 Special version, TSP-no. to be spec.

>>Marking:

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- Z1 Tagging (TAG), metal
Please confirm marking separately.
Metal label (71072708)
 - Z2 Tagging (TAG), on device
Please confirm marking separately.
TAG on device, measuring point (71072711)
 - Z3 Commissioning label, paper
Please confirm marking separately.
Commissioning label, paper (71072712)
 - Z4 Tagging (TAG), Fieldbus
Please confirm marking separately.
TAG fieldbus 32 digit, measuring point (71072713)
 - Z6 Tagging (TAG), by customer
Please confirm marking separately.
TAG supplied by customer (71072714)
 - ZA Tagging (TAG), Descriptor
Please confirm marking separately.
Descriptor configuration 16 char (51003546)
 - ZD Tagging (TAG), RFID
Please confirm marking separately.
RFID - NFC Tag Ex + Rucksack Daten (71292552)
RFID - NFC Tag standard + Rucksack data (71292545)