



Description & Features:

- Integrated temperature transmitter with ASIC signalling transmitter
- Explosion proof smart temperature transmitter for hazardous locations
- -50 to 400°C (-58/752°F) measure range
- 0.5% accuracy
- Simple to operate 3-push button control
- HART or Modbus communications available
- Low power option available
- Re-zero function for safe field calibration
- 10:1 rangeability allows for installation in any application
- 5 Year Warranty

Applications:

- TY52 can be utilized and installed anywhere where temperature measurement is required. From Oil & Gas installations to Power Generation, this product has a rugged design and is equipped with the communication protocols to meet all your day to day requirements

Specifications	
Output Signal	4/20 mA, 2-wire / V = 10.5-30 Vdc 4/20 mA + HART, 2-wire / V = 16.5-55 Vdc 1/5 Vdc, 3-wire / V = 12-30 Vdc Modbus, 4-wire / V = 12-32 Vdc
Sensor Type	PT100 RTD
Measuring Range	-50/400°C (-58/752°F)
LCD Display	LCD display (standard) or without LCD display (optional)
Accuracy	0.5% accuracy
Stability	0.05% or 0.1°C / year
Temperature Ranges	Working: -40/85°C, -40/185°F (LCD may not be readable at temperatures below -20°C/ -4°F) Storage: -40/100°C (with display -20/70°C), -40/212°F (without display -4/158°F)
Working Humidity	0-95%
Pressure Connection	1/2" NPTM, 1/2 GM or Flanged
Housing	Rugged die-cast aluminum housing, painted blue
Wetted Parts	316 SS, 304 SS
Power Consumption	</- 500 mW @ 24 VDC, 20.8 mA
Vibration	4g, 2...100Hz According to IEC 60068-2-6
Available Temperature Units	Celsius (°C), Fahrenheit (°F)
Protection Class	EMI, ESD, RFI, reverse polarity protected; Surge protection IEC1000-4-5
Approval	Intertek for USA & Canada <ul style="list-style-type: none"> • Class I, Division 1, Groups A, B, C & D, T6... T1 • Class I, Division 2, Groups A, B, C & D, T4...T1 • Class II, Division 1, Groups E, F & G, T80°C... T400°C • Class III
Protection Class	IP66

Please Note: Thermowell sold separately.

TY52

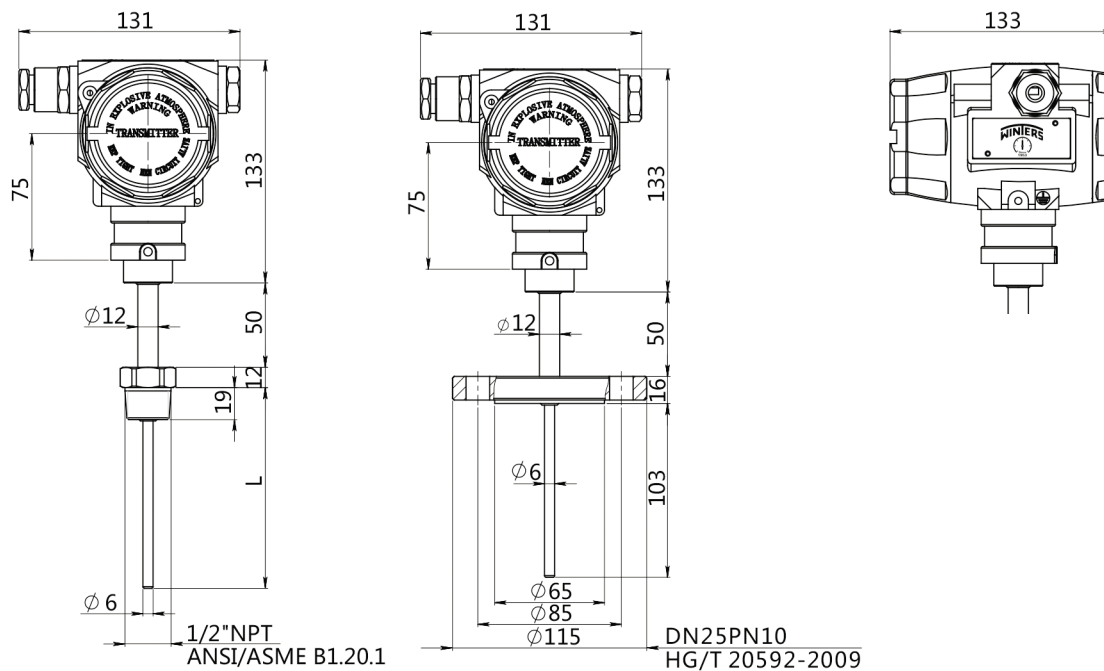
WinSMART Temperature Transmitter

Order Codes

Insertion Length (INCH), 1/2" NPT	4/20 mA Output	4/20 mA + HART Output	1/5 VDC Output	MODBUS RS485 Output
	°C/°F			
50mm (2")	TY520501	TY52050H	TY520502	TY52050R
100mm (4")	TY521001	TY52100H	TY521002	TY52100R
150mm (6")	TY521501	TY52150H	TY521502	TY52150R
200mm (8")	TY522001	TY52200H	TY522002	TY52200R
300mm (12")	TY523001	TY52300H	TY523002	TY52300R

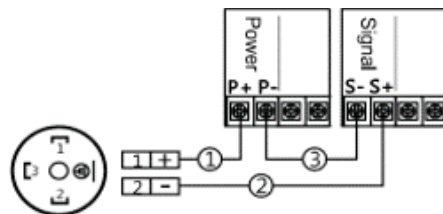
See how to order guide for specific lengths.

Dimensions (mm)



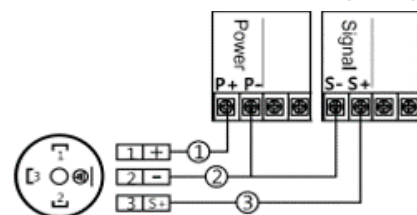
Pin Configurations

4-20mA two wires (DIN43650)



- ① Connect the positive power supply (P+) to the positive power supply (P+) of temperature transmitter (terminals 1);
- ② Connect the negative power supply (P-) of temperature transmitter (terminals 2) to the positive signal module (S+);
- ③ Connect the negative signal module (S-) to the negative power supply (P-)

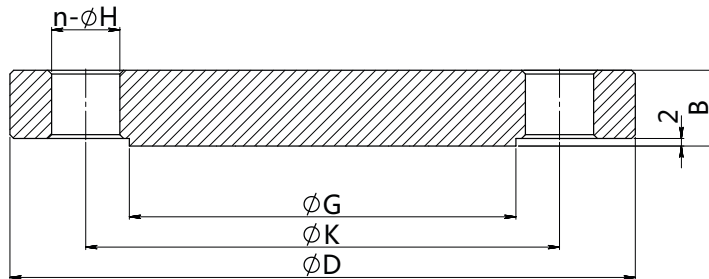
Three wires current/voltage signal (DIN43650)



- ① Connect the positive power supply (P+) to the positive power supply (P+) of temperature transmitter (terminals 1);
- ② Connect the negative power supply (P-) of temperature transmitter (terminals 2) to the negative power supply (P-), and connect the negative signal module (S-) to negative power supply (P-);
- ③ Connect the positive signal module (S+) of temperature transmitter (terminals 3) to the positive signal module (S+);

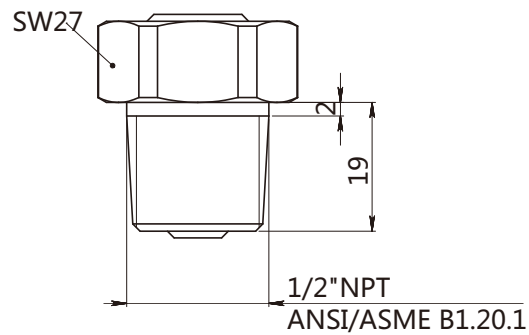
Process Connections

H01-H02 (mm)

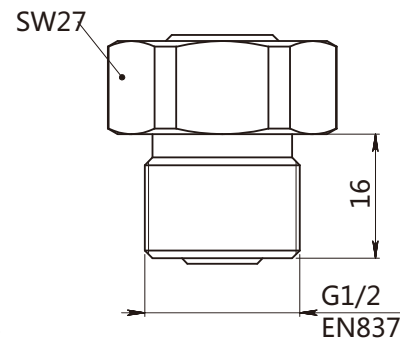


Standard	Specification	Outer Diameter (φD)	Thickness (B)
HG/T20592-2009	DN50PN10-PN40	165	20
HG/T20592-2009	DN25PN10-PN40	115	16
Hole Circle (φK)	Raised-face Diameter (φG)	Hole Diameter (φH)	Number (n)
125	102	18	4
85	68	14	4

R01 (mm)



G01 (mm)



TY52

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Series Number (how to order) Please Note: Thermowell sold separately.

TY52 ENGINEERED PART NUMBERS

OUTPUT	4...20 mA / 2-wire 4...20 mA / 2-wire + HART 1...5 V, 3-wire Modbus, 2-wire
SENSOR & ACCURACY	PT100, 0.5 % (standard)
ELECTRICAL CONNECTION	Water proof M20x1.5 F, PVC, IP66 Flame proof 1/2" NPT F, SS, IP66 (standard) Flame proof M20x1.5 F, SS, IP66
EXTENSION TUBE	No Extension (standard) 50mm length, 12mm diameter, 316SS 100mm length, 12mm diameter, 316SS 150mm length, 12mm diameter, 316SS 200mm length, 12mm diameter, 316SS Other, specify E6 thru E9
PROCESS CONNECTION	1/2" NPT (M) (standard) G 1/2 (M) Flange DN 25 Flange DN 50
PROCESS CONNECTION MATERIAL	304 SS (standard) 316 SS
OUTSIDE DIAMETER	6mm (1/2"), material same as process connection (standard) 8mm, material same as process connection 10mm, material same as process connection 12mm, material same as process connection 16mm, material same as process connection Other, specify D6 thru DZ
Insertion Length, in MM	50 (2") 100 (4") 150 (6") 200 (8") 300 (12") 400 (16") 500 (18") Other, specify thru L9999
SPECIAL	Without LCD display Moveable process connection Other, specify Z1 thru Z99

