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ITT4x with Display Industrial Temperature Transmitter

FEATURES

- RTD, TC, Ohm, and bipolar mV input
- HART protocol revision HART 5 or HART 7
- Explosion-proof design, aluminum alloy head
- The panel is equipped with touch buttons and support online configuration
- LCD display; Double-chamber structure
- Support remote or integrated installation with sensors
- Ingress protection IP66

ITT4x
With display transmitter

APPLICATIONS

■ Refineries ■ Power plants ■ General Industry ■ OEM Integration ■ Water and wastewater pressure control ■ Marine and offshore ■ Chemical and petrochemical plants ■ Mining and metals

HART COMMUNICATION PROTOCOL

KEY BENEFITS

- **HART protocol revision HART 5 or HART 7**
- **Support remote or integrated installation with sensors**
- **Double-chamber structure**
- **High reliability and safety**

MECHANICAL SPECIFICATIONS	
Dimensions:	118 x 93 x 95 mm
Weight:	1.1 kg
Wire Size:	0.5…1.5 mm² / AWG 24…14 stranded wire
Torque Terminal Screw:	0.4 Nm
Display Resolution:	128 x 64 pixels
Backlit display:	White

ENVIRONMENTAL SPECIFICATIONS	
Operating Temperature:	-40 to 85℃
Storage Temperature:	-40 to 85℃
Humidity:	0…100% RH (Condensation)
Calibration Temperature:	20…28℃
Ingress protection:	IP66 / NEMA 4X

ACCURACY SPECIFICATIONS	
Absolute Accuracy:	≤ ±0.05 % of span
Effect of EMC:	≤ ±0.1 % of span
EMC NAMUR NE21, A:	≤ ±1 % of span
Signal Dynamics Input/Output:	22 bit / 16 bit

ELECTRICAL SPECIFICATIONS	
Supply Voltage:	13.5…30 Vdc
Isolation Voltage:	1.5k VAC / 50VAC
Programming:	Standard HART / ITT Software
HART version:	HART 7 / HART 5
Response Time: (programmable):	1…60 s
Start-up time:	Max. 5 s
Long-term stability:	±0.1 % of span / year

INPUT SPECIFICATIONS	
Max. Offset:	50 % of selected max. value
RTD type:	Pt50 / 100 / 200 / 500 / 1000 Ni50 / 100 / 120 / 1000
Max. Cable resistance: (per wire)	5 Ω (up to 50 Ω per wire with Reduce accuracy)
Sensor Current:	0.2 mA
Thermocouple Types:	B, E, J, K, L, N, R, S, T, U, W3, W5, LR
Cold Junction Compensation (CJC)	Constant, Internal or External via a Pt100 or Ni100 Sensor
Input Voltage:	-800…+800 mV
Min. Span:	2.5 mV
Input Resistance:	10 MΩ

OUTPUT SPECIFICATIONS	
Signal Range:	4…20 mA, with min. range 16 mA
Update Time:	440 ms
Load Resistance:	≤ (Vsupply - 8.0) / 0.023 [Ω]

SENSOR ERROR DETECTION SPECIFICATIONS	
Programmable:	3.5…23 mA
NAMUR NE43 High Level:	23 mA
NAMUR NE43 Low Level:	3.5 mA

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APPROVALS	
EMC	According to IEC 61000-4-2、IEC 61000-4-4、IEC 61000-4-5、IEC 61000-4-6

Ordering Code		ITT4x	S	1	42	3	N200	200	C	NE43U	S2	X
Model												
ITT4x	With display transmitter	ITT4x										
Explosion Protection												
S	Standard		S									
Input Signal												
1	RTD type Pt100			1								
2	RTD type Pt1000											
3	RTD type Ni100											
K	TC type K											
E	TC type E											
J	TC type J											
T	TC type T											
N	TC type N											
R	TC type R											
S	TC type S											
B	TC type B											
Output Signal												
42	4…20 mA HART				42							
Sensor Wiring												
2	RTD 2 wires											
3	RTD 3 wires					3						
4	RTD 4 wires											
5	TC 2 wires											
Temperature Range, low (within min. span)												
N200	-200						N200					
Temperature Range, high (within max. span)												
0200	200							200				
Engineering Unit												
C	℃								C			
F	℉											
Alarm Level Configuration												
NE43U	NAMUR alarm and saturation levels, high alarm, 23mA									NE43U		
NE43D	NAMUR alarm and saturation levels, low alarm, 3.5mA											
Head type												
S2	Aluminum alloy, cable entry 2 x 1/2" NPT										S2	
SM	Aluminum alloy, cable entry 2 x M20 x 1.5											
Options	See next page											X

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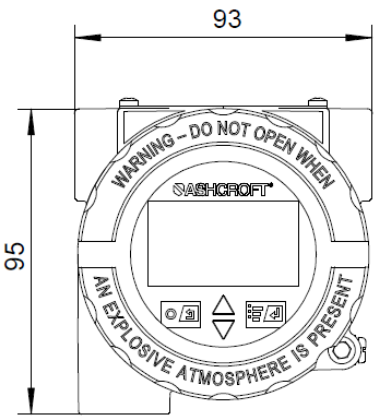
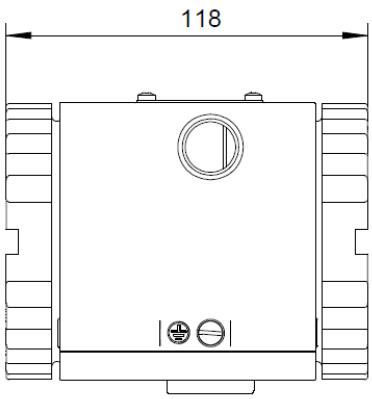
Ordering Code	ITT4x	S	1	42	3	N200	200	C	S2	X

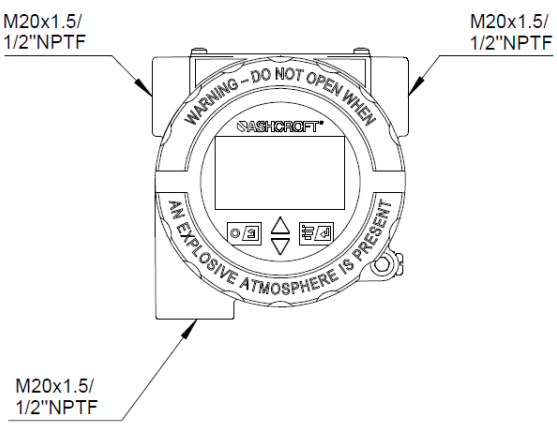
NH	Label in 304SS with tag
S	Built-in surge protector
O	Outboard surge protector
MU	2" pipe mounting bracket in 304SS, with type U and bolts nuts
MS	Backplate mounting bracket in 304SS, with fixing bolts nuts
N1	Without LCD display
CD1	Conformity certificate
5P	5 point calibration report

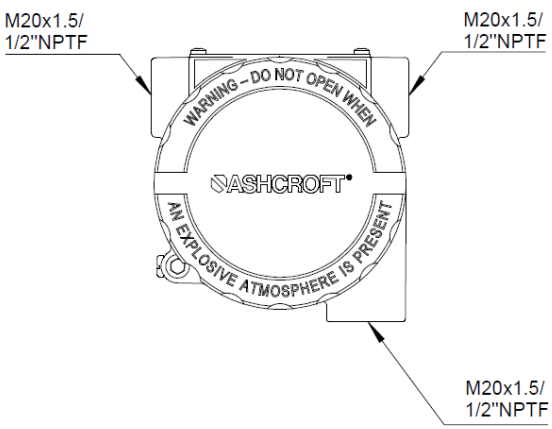
GENERAL DIMENSIONS (DIMENSION IN MM)

- For reference only, consult Ashcroft for specific dimensional drawings









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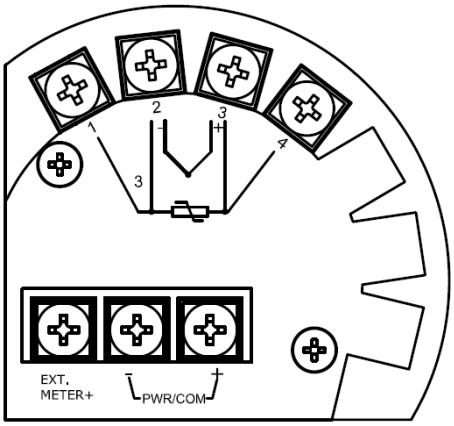
ELECTRICAL CONNECTION AND SCHEMES



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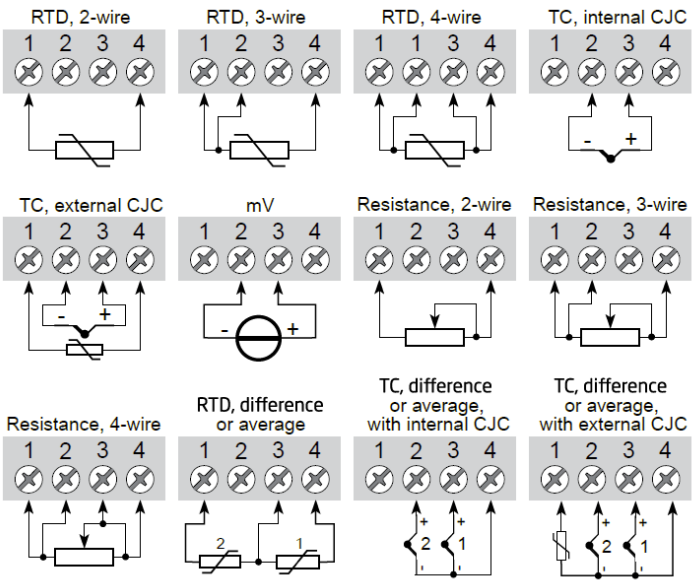
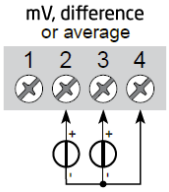
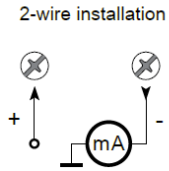
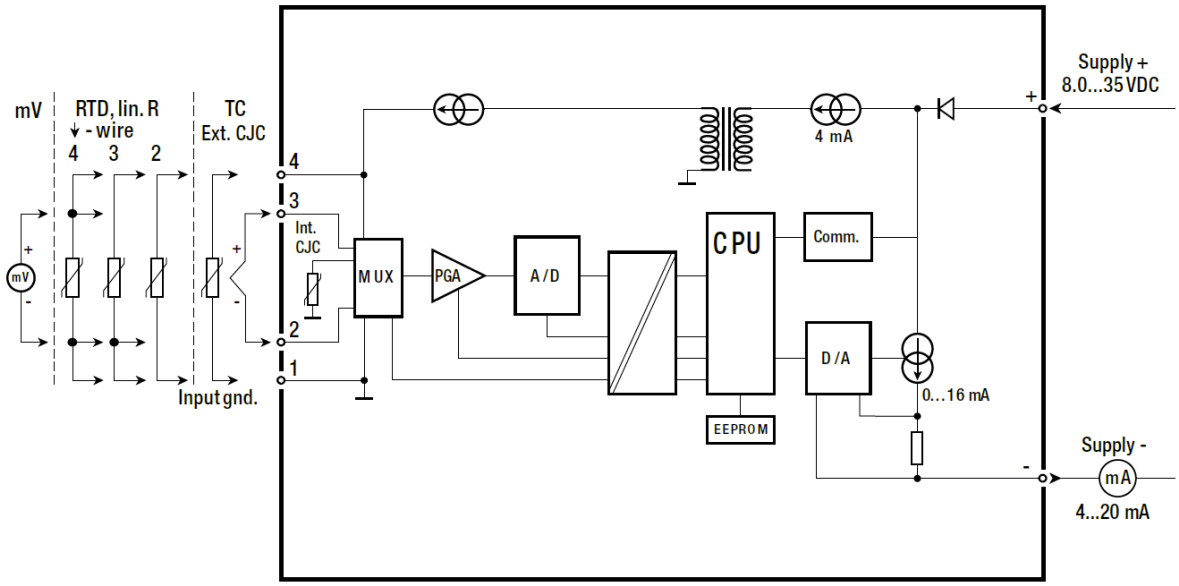




Output:



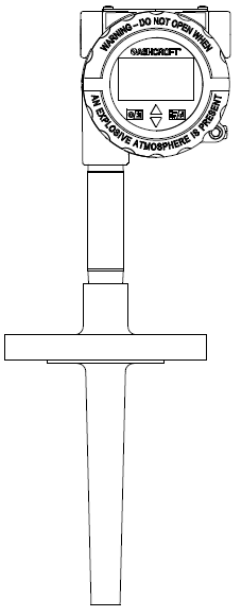
BLOCK DIAGRAM

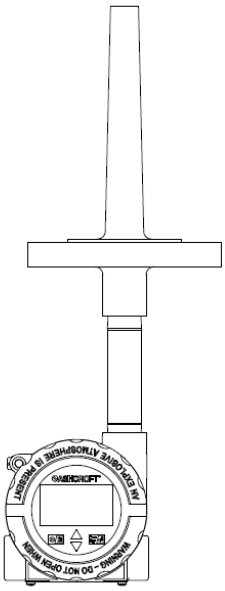


Mounting type

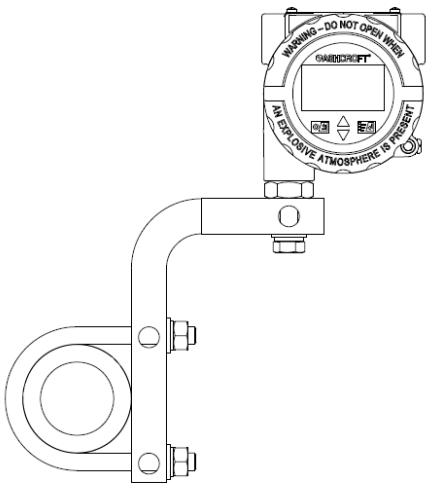
- The following types are for reference, consult Ashcroft for specific needs.

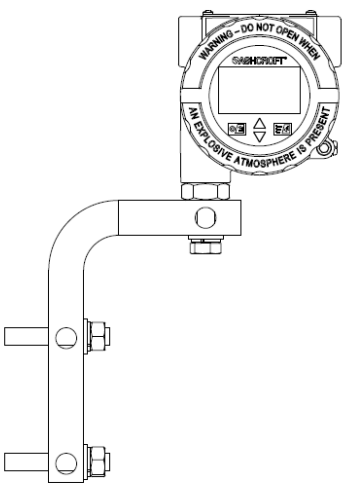
Integrated structure The LCD supports 90° rotation





Remote structure 2" pipe mounting / Backplate mounting





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