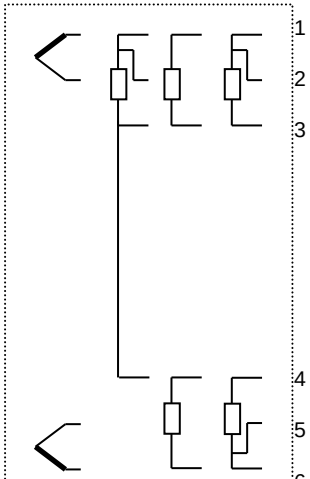
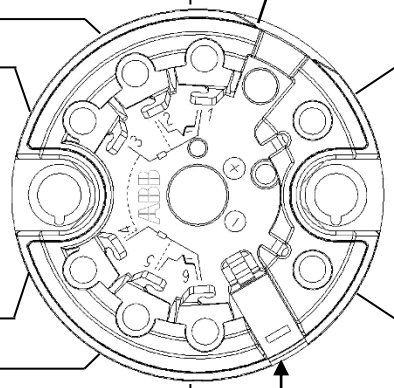
Division 2 Hazardous Location

Non – Hazardous Location

Sensors
must be FM approved or be a simple apparatus. Simple apparatus is a device which will neither generate nor store more than 1.5 V; 0.1 A; 25mW resp. 20 µJ such as switches, RTD's, TC.



Sensor Types Overview
Channel 1 and 2
RTD or TC or Voltage or …



TTH300-L2H* (Hardware Rev.: ≥ 02.00.00)

HMI / Display Interface
(Protection Cover, open with screwdriver before connect)

Apparatus Input Values
N.I. $V_{max} \leq 30.0$ V DC ;
$I_{max} \leq 130$ mA ; $P_i \leq 0.8$W
$C_i = 0{,}57$nF $L_i = 160$uH

Heat-resistant connection cables shall be used if the temperature at the cable entries or inside the enclosure where the TTH300 temperature measuring transducer is mounted, is higher than 60°C.

Associated Apparatus **< 250 V**

" 2 wire hookup – Nonincendive Field Circuit"

N.I. Sensor Field Circuit Entity Parameters
$V_{oc} = 6.5$ V; $I_{sc} = 17.8$ mA; $P_o = 29$ mW
Terminals: 1,2,3,4,5,6
GP: A,B $= C_a = 1.65$ µF; $L_a = 5.0$ mH
C,D $= C_a = 8.5$ µF; $L_a = 5.0$ mH

FM approved HMI / Display Interface with Output Parameters
Class I Div 2; Groups: A,B,C,D
$V_{oc} = 6.2$ V; $I_{sc} < 65.2$ mA; $P_o = 101$ mW
Terminals: 6 PIN Connector
GP A,B $C_a = 1.4$ µF; $L_a = 5.0$ mH
C,D $C_a = 8.9$ µF; $L_a = 5.0$ mH

Associated Apparatus
Nonincendive Parameters must meet the following Requirements :
V_{oc} or $V_t \leq V_{max}$; $C_a \leq C_i + C_{cable}$;
I_{sc} or $I_t \leq I_{max}$; $L_a \leq L_i + L_{cable}$

The temperature transmitter is FM approved for nonincendive field circuits when installed per Canadian Electrical Code C22.1 Annex J18 or national electrical code (NEC) article 501-10(B)(3), 502-10(B)(4) or 503-10(B)(4) with FM approved nonincendive field circuit output apparatus which meet the parameters indicated above.

FM nonincendive field circuit approval
Temp.Ident: T6,T5 at $T_{amb} = 56$ °C;
T4…T1 at $T_{amb} = 85$ °C;
Class I Div. 2; Groups A,B,C,D or Zone 2 AEx/Ex na IIC or Zone 2 AEx/Ex ec IIC

Temperature Transmitter Model "TTH300*" Ordering Code "TTH300-L2..H*" is an open type unit which must be installed within an enclosure appropriate for environmental protection in accordance with ANSI/ISA 61010-1 (82.02.01) or CSA 22.1 61010-1 and shall be installed in compliance with the enclosure, mounting, spacing and segregation requirements of the ultimate application.
* Includes the TTH300-N variant

Rev.	Desc.	Date	Name
2.01	Misc	02.12.22	Peterich
2.00	HW02.00	30.03.22	Peterich.

Do not alter without FM authorization

Approv.	---	Müller
	Date	Name

ABB
Automation Products

Title:
TTH300 HART (Hardware Rev. ≥ 02.00.00)
N. I. Temperature Transmitter
Control Drawing

Scale: -----

Drawing / Part No.:
TTH300-L2H

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Replacement of: --------