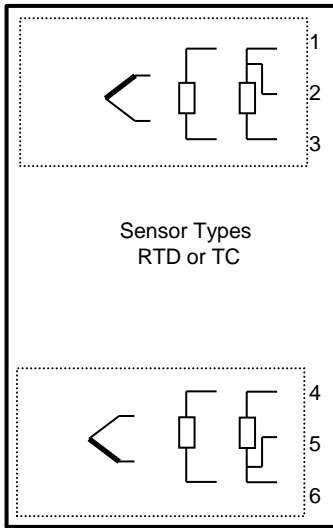


Hazardous Location Non – Hazardous Location

Measuring inset
RTD's or TC,
which are simple
apparatus: neither
generate nor store
more than
1.5 V; 0.1 A; 25mW
resp. 20 μJ.

L_o and C_o are
negligible
(Wire length
< 1500 mm)



TTH300-N-L1..H* in AGLF, AGSF, AGLFD, AGSFD Enclosure Type 4X

Apparatus Input Values

I.S. $U_i \leq 30.0$ V DC ;
 $I_i \leq 130$ mA ; $P_i \leq 0.8$ W
 $C_i = 0,57$ nF $L_i = 160$ uH (HW ≥ 2.00)
 $C_i = 0,57$ nF $L_i = 500$ uH (HW ≤ 1.07)

Heat-resistant connection cables shall be used if the temperature at the cable entries or inside the enclosure of the TSP341-N temperature measuring transducer is higher than 60°C.

Ground terminal for shield support for supply / signal lines

FM approved HMI / Display Interface with Intrinsically Safe Output Parameters

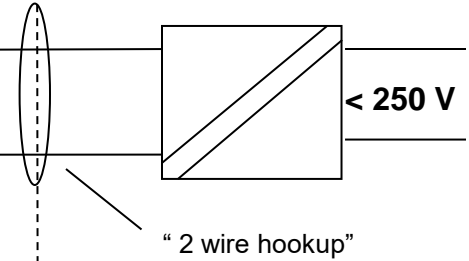
Class I Div 1,2 Groups A,B,C,D or
Class I Zone 0 AEx/Ex ia IIC
 $V_{oc} = 6.2$ V; $I_{sc} < 65.2$ mA; $P_o = 101$ mW
Terminals: 6 PIN Connector
GP A,B $C_a = 1.4$ μF; $L_a = 5.0$ mH
C,D $C_a = 8.9$ μF; $L_a = 5.0$ mH

FM intrinsically safe field circuit approval

Class I,II,III Div. 1 and Div. 2; Groups A,B,C,D,E,F,G
Class I Zone 0 AEx/Ex ia IIC

Temperature Sensor Model "TSP341-N" Ordering Code "TSP341-NL1H" contains a TTH300-N transmitter, that is installed in an enclosure type AGLF, AGSF or AGLFD, AGSFD w/wo FM approved display.

Barrier Galvanic Isolator



- Barrier or Galvanic Isolator must be FM approved (US) or listed for Canada (cFM/CSA) and must be installed in accordance with manufacturers instructions.
- Barrier or Galvanic Isolator parameters must meet the following Requirements :
 V_{oc} or $V_t \leq V_{max}$; $C_a \leq C_i + C_{cable}$;
 I_{sc} or $I_t \leq I_{max}$; $L_a \leq L_i + L_{cable}$
 P_o or $P_t \leq P_{max}$
- Maximum non - hazardous area voltage must not exceed 250V
- Install in accordance with the CE Code CSA C22.1 61010-1, or NEC (ANSI/NFPA 70) and ANSI/ISA RP12.06.01 " Part 1: Intrinsic Safety"

Surface Temperature pipe T_{surf}	Maximum allowable Ambient temperature at enclosure T_{amb}			
	Aluminium enclosure		Stainless Steel enclosure	
	Pipe without insulation	Pipe with insulation	Pipe without insulation	Pipe with insulation
T6,T5 72°C/87°C	52°C	55°C	54°C	57°C
T4 122°C	77°C	81°C	75°C	81°C
T3 187°C	71°C	78°C	64°C	74°C
T2 282°C	62°C	74°C	49°C	65°C
T1 432°C	48°C	67°C	26°C	50°C

Warning:
Resistance between barrier ground and earth ground must be less then 1.0 Ohm.
The apparatus enclosure AGL... contains aluminum and is considered to constitute a potential risk of ignition by impact or friction. Care must be taken into account during installation and use to prevent impact or friction.

1.00	release	2023-06-30	Peterich
Rev.	Desc.	Date	Name

Do not alter without FM authorization

Approv.	2023-06-30	Peterich
Date		Name

ABB
Automation Products

Title:	TSP341-N I.S. non-invasive temperature sensor with transmitter Control Drawing	Scale:	-----
Drawing / Part No.:	TSP341-N-L1H	Page : of	1 / 1
Replacement of:	-----		