



Certificate of Compliance

Certificate: 1733312

Master Contract: 200600

Project: 80062682

Date Issued: April 14, 2021

Issued To: Endress+Hauser Wetzer GmbH Co. KG
Obere Wank 1
Nesselwang, Bayern, 87484
Germany

Attention: Michael Pfanzelt

The products listed below are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US or with adjacent indicator 'US' for US only or without either indicator for Canada only.



Issued by:

Jens Ensminger

PRODUCTS

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations

Class I, Div.1, Groups A, B, C and D; Class II, Div.1, Groups E, F and G; Class III:

Temperature sensor assemblies in type of protection explosion proof and dust-ignition proof which consists of an enclosure with or without installed temperature transmitter and connected sensor.

- Model numbers T13, T14, T53, T54, TU111 and TU121, transmitters rated 10...42Vdc, 3 W max.; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control dwgs 16 01 00 116, 16 01 00 118 and 10000011304.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures TMT142 and TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT, assembled with one or more sensors/components Part Nos. H0316-01, H0316-03, H0316-04, H0324-01, G60100201, G60100202, G60100203, G60100204 (*) (**). Encl. Type 4X.
- Enclosures Series 215804, 215805, 215807, 215808 and TA30H(**), die cast aluminum, conduit entry sizes ½ inch, ¾ inch NPT or ¾ inch NPT with reducer H0310-01, assembled with one or more sensors / components Part Nos. H0316-01, H0316-03, H0316-04, H0324-01, G60100201, G60100202, G60100203, G60100204(*). Encl. Type 4X.

(*) Note: Spring loaded sensor assemblies Part Nos. H0315-02 must be used with thermowell.

(**) Note: All conduits must be sealed within 18 in for enclosures TMT142, TMT162 and TA30H.



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- Model number iTHERM, type TM111, transmitters rated 10...42 Vdc, 3 W max.; sensor rated max. 50 mW Install per- and refer for detailed ratings to Control drawing 10000010342.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures Series TA30H(**), TA30A or TA30D, die cast aluminum or stainless steel, conduit entry sizes ½ inch NPT, or M20x1.5, assembled with one or dual sensors Encl. Type 4X; IP66/67

(**) Note: All conduits must be sealed within 18 in for enclosures TA30H.

T-class	TM111, T13, T14, T53, T54 Ambient temperature range		
	With head transmitter TMT18x, TMT8x, TMT7x	Without electronic or with terminal block	With assembled field transmitter TMT162, TMT142*, TMT142B**
T6/T85°C	-40°C ≤ Ta ≤ +65°C	-50°C ≤ Ta ≤ +70°C	-40°C ≤ Ta ≤ +55°C
T5/T100°C	-40°C ≤ Ta ≤ +80°C	-50°C ≤ Ta ≤ +80°C	-40°C ≤ Ta ≤ +70°C
T4/T135°C	-40°C ≤ Ta ≤ +85°C	-50°C ≤ Ta ≤ +120°C	-40°C ≤ Ta ≤ +85°C

*For models T13, T14, T53, T54 only

**The maximum ambient temperature for model TMT142B is limited to +70 °C for the display models

Type	Insert diameter	T- class Max. surface	Process temperature range for assembled head transmitter TMT18x, TMT8x, TMT7x and TMT142B or with terminal block (P ≤ 50 mW)	Process temperature range for assembled field transmitter TMT162, TMT142*
TM111, T13**, T14**, T53**, T54**	3mm, 3mm(dual) 6mm dual	T6/T85°C	-50°C ≤ Tp ≤ +66°C	-50°C ≤ Tp ≤ +64°C
		T5/T100°C	-50°C ≤ Tp ≤ +81°C	-50°C ≤ Tp ≤ +79°C
		T4/T135°C	-50°C ≤ Tp ≤ +116°C	-50°C ≤ Tp ≤ +114°C
		T3/T200°C	-50°C ≤ Tp ≤ +181°C	-50°C ≤ Tp ≤ +179°C
		T2/T300°C	-50°C ≤ Tp ≤ +276°C	-50°C ≤ Tp ≤ +279°C
		T1/T450°C	-50°C ≤ Tp ≤ +426°C	-50°C ≤ Tp ≤ +424°C
	6mm	T6/T85°C	-50°C ≤ Tp ≤ +73°C	-50°C ≤ Tp ≤ +71°C
		T5/T100°C	-50°C ≤ Tp ≤ +88°C	-50°C ≤ Tp ≤ +86°C
		T4/T135°C	-50°C ≤ Tp ≤ +123°C	-50°C ≤ Tp ≤ +121°C
		T3/T200°C	-50°C ≤ Tp ≤ +188°C	-50°C ≤ Tp ≤ +186°C
		T2/T300°C	-50°C ≤ Tp ≤ +283°C	-50°C ≤ Tp ≤ +286°C
		T1/T450°C	-50°C ≤ Tp ≤ +433°C	-50°C ≤ Tp ≤ +431°C

*For models T13, T14, T53, T54 only

**Single Seal device for process temperature of -50°C to +130°C, MWP 2,500 psi (Only applicable to T13, T14, T53 and T54 temperature sensor assemblies).



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Class I, Div. 1, Groups B, C and D; Class II, Div. 1, Groups E, F and G; Class III, Div. 1:

- Model numbers T15, T55, TU211 and TU221, transmitters rated 10...42Vdc, 3 W max.; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control dwgs 16 01 00 115, 16 01 00 117 and 10000011304.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures TMT142 and TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT, assembled with one or more sensors/components Part Nos. 16 01 00 240, H0316-01 and G6 03 20 200. Encl. Type 4X.
- Enclosures Series 210804, 210805, 210807, 210808 and TA30H, die cast aluminum or stainless steel 316, conduit entry sizes ½ inch, ¾ inch NPT or ¾ inch NPT with reducer bushing H0310-01, assembled with one or more sensors/components Part Nos. 16 01 00 240, H0316-01 and G6 03 20 200. Encl. Type 4X.

Note: All conduits must be sealed within 18 in for enclosures TMT142, TMT162 and TA30H.

- Model number iTHERM, type TM131, transmitter rated max. 10...42 Vdc, 3 W max.; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control drawing 10000010342.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures TMT142 or TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT or M20x1.5, assembled with one or dual sensors; Encl. Type 4X; IP66/67
- Enclosures Series TA30H(**), TA30A or TA30D, die cast aluminum or stainless steel, conduit entry sizes ½ inch NPT or M20x1.5, assembled with one or dual sensors; Encl. Type 4X; IP66/67

(**) Note: All conduits must be sealed within 18 in for enclosures TMT142, TMT162 and TA30H.

T-class	TM131, T15, T55		
	Ambient temperature range		
	With head transmitter TMT18x, TMT8x, TMT7x	Without electronic or with terminal block	With field transmitter TMT162, TMT142*, TMT142B**
T6/T85°C	-40°C ≤ Ta ≤ +65°C	-50°C ≤ Ta ≤ +70°C	-40°C ≤ Ta ≤ +55°C
T5/T100°C	-40°C ≤ Ta ≤ +80°C	-50°C ≤ Ta ≤ +80°C	-40°C ≤ Ta ≤ +70°C
T4/T135°C	-40°C ≤ Ta ≤ +85°C	-50°C ≤ Ta ≤ +120°C	-40°C ≤ Ta ≤ +85°C

*For models T15, T55 only

**The maximum ambient temperature for model TMT142B is limited to +70 °C for the display models



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Type	Insert diameter	T- class Max. surface	Process temperature range for assembled head transmitter TMT18x, TMT8x, TMT7x and TMT142B or with terminal block (P ≤ 50 mW)	Process temperature range for assembled field transmitter TMT162, TMT142*
TM131, T15, T55	3mm, 3mm(dual) 6mm dual	T6/T85°C	-50°C ≤ Tp ≤ +66°C	-50°C ≤ Tp ≤ +64°C
		T5/T100°C	-50°C ≤ Tp ≤ +81°C	-50°C ≤ Tp ≤ +79°C
		T4/T135°C	-50°C ≤ Tp ≤ +116°C	-50°C ≤ Tp ≤ +114°C
		T3/T200°C	-50°C ≤ Tp ≤ +181°C	-50°C ≤ Tp ≤ +179°C
		T2/T300°C	-50°C ≤ Tp ≤ +276°C	-50°C ≤ Tp ≤ +279°C
		T1/T450°C	-50°C ≤ Tp ≤ +426°C	-50°C ≤ Tp ≤ +424°C
		6mm	T6/T85°C	-50°C ≤ Tp ≤ +73°C
	T5/T100°C	-50°C ≤ Tp ≤ +88°C	-50°C ≤ Tp ≤ +86°C	
	T4/T135°C	-50°C ≤ Tp ≤ +123°C	-50°C ≤ Tp ≤ +121°C	
	T3/T200°C	-50°C ≤ Tp ≤ +188°C	-50°C ≤ Tp ≤ +186°C	
	T2/T300°C	-50°C ≤ Tp ≤ +283°C	-50°C ≤ Tp ≤ +286°C	
	T1/T450°C	-50°C ≤ Tp ≤ +433°C	-50°C ≤ Tp ≤ +431°C	

*For models T15, T55 only

CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations – Certified to US Standards

Class I, Div.1, Groups A, B, C and D; Class II, Div.1, Groups E, F and G; Class III:

Temperature sensor assemblies in type of protection explosion proof and dust-ignition proof which consists of an enclosure with or without installed temperature transmitter and connected probe.

- Model (Approval code “L”) numbers T13, T14, T15, T53, T54 and T55, transmitters rated 10...36Vdc, 3 W max.; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control dwg 10000011304.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures Series 215804, 215805, 215807, 215808 and TA30H(**), die cast aluminum or stainless steel, conduit entry sizes ½ inch, ¾ inch NPT or ¾ inch NPT with reducer H0310-01, assembled with one or more sensors / components Part Nos. H0316-01, H0316-03, H0316-04, H0324-01, G60100201, G60100202, G60100203, G60100204-(*). Encl. Type 4X.

(*) Note: Spring loaded sensor assemblies Part Nos. H0315-02 must be used with thermowell.

(**) Note: All conduits must be sealed within 18 in for enclosure TA30H.

- Model numbers iTHERM, type TM111, TM131, transmitter rated 10...42 Vdc, 3 W max.; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control drawing 10000010342.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures TMT142 or TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT or M20x1.5, assembled with one or dual sensors;. Encl. Type 4X; IP66/67



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- Enclosures Series TA30H(**), TA30A or TA30D, die cast aluminum or stainless steel, conduit entry sizes ½ inch NPT or M20x1.5, assembled with one or dual sensors; Encl. Type 4X; IP66/67

(**) Note: All conduits must be sealed within 18 in for enclosures TMT142, TMT162 and TA30H.

T-class	TM111, TM131, T13, T14, T15, T53, T54, T55* Ambient temperature range		
	With head transmitter TMT180, TMT8x, TMT7x	Without electronic or with terminal block	With field transmitter TMT142B**, TMT162
T6/T85°C	-40°C ≤ Ta ≤ +65°C	-50°C ≤ Ta ≤ +70°C	-40°C ≤ Ta ≤ +55°C
T5/T100°C	-40°C ≤ Ta ≤ +80°C	-50°C ≤ Ta ≤ +80°C	-40°C ≤ Ta ≤ +70°C
T4/T135°C	-40°C ≤ Ta ≤ +85°C	-50°C ≤ Ta ≤ +120°C	-40°C ≤ Ta ≤ +85°C

*Models T13, T14, T15, T53, T54, T55 are just assembled with TMT7x or TMT142B

**The maximum ambient temperature for model TMT142B is limited to +70 °C for the display models

Type	Insert diameter	T- class Max. surface	Process temperature range for assembled head transmitter TMT180, TMT8x, TMT7x* and TMT142B* or with terminal block (P ≤ 50 mW)	Process temperature range for assembled field transmitter TMT162
TM111, TM131, T13**, T14**, T15, T53**, T54**, T55	3mm, 3mm(dual) 6mm dual	T6/T85°C	-50°C ≤ Tp ≤ +66°C	-50°C ≤ Tp ≤ +64°C
		T5/T100°C	-50°C ≤ Tp ≤ +81°C	-50°C ≤ Tp ≤ +79°C
		T4/T135°C	-50°C ≤ Tp ≤ +116°C	-50°C ≤ Tp ≤ +114°C
		T3/T200°C	-50°C ≤ Tp ≤ +181°C	-50°C ≤ Tp ≤ +179°C
		T2/T300°C	-50°C ≤ Tp ≤ +276°C	-50°C ≤ Tp ≤ +279°C
		T1/T450°C	-50°C ≤ Tp ≤ +426°C	-50°C ≤ Tp ≤ +424°C
	6mm	T6/T85°C	-50°C ≤ Tp ≤ +73°C	-50°C ≤ Tp ≤ +71°C
		T5/T100°C	-50°C ≤ Tp ≤ +88°C	-50°C ≤ Tp ≤ +86°C
		T4/T135°C	-50°C ≤ Tp ≤ +123°C	-50°C ≤ Tp ≤ +121°C
		T3/T200°C	-50°C ≤ Tp ≤ +188°C	-50°C ≤ Tp ≤ +186°C
		T2/T300°C	-50°C ≤ Tp ≤ +283°C	-50°C ≤ Tp ≤ +286°C
		T1/T450°C	-50°C ≤ Tp ≤ +433°C	-50°C ≤ Tp ≤ +431°C

*Models T13, T14, T15, T53, T54, T55 are just assembled with TMT7x or TMT142B.

**Single Seal device for process temperature of -50°C to +130°C, MWP 2,500 psi (Only applicable to T13, T14, T53 and T54 temperature sensor assemblies)



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CLASS 2258 03 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations

Class I, Div. 2, Groups A, B, C and D

Temperature sensor assemblies in type of protection Non-incendive which consists of an enclosure with or without installed temperature transmitter and connected probe.

- Model numbers T13, T14, T53, T54, TU111 and TU121, transmitter rated 10...42Vdc, 3 W max.; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control dwg. 16 01 00 118, 10000011304.

May be assembled with the following certified enclosure and component options:

- Enclosures TMT142 and TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT, assembled with one or more sensors/components Part Nos. H0316-01, H0316-03, H0316-04, H0324-01, G60100201, G60100202, G60100203, G60100204 (*) (**). Encl. Type 4X.
- Enclosures Series 215804, 215805, 215807, 215808 and TA30H, die cast aluminum, conduit entry sizes ½ inch, ¾ inch NPT or ¾ inch NPT with reducer H0310-01, assembled with one or more sensors/components Part Nos. H0316-01, H0316-03, H0316-04, H0324-01, G60100201, G60100202, G60100203, G60100204 (*). Encl. Type 4X.
- Model numbers T15, T55, TU211 and TU221, transmitter rated 10...42Vdc, 3 W max.; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control dwg 16 01 00 117, 10000011304.

May be assembled with the following certified enclosure and component options:

- Enclosures TMT142 and TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT, assembled with one or more sensors/components Part Nos. 16 01 00 240, H0316-01 and G6 03 20 200. Encl. Type 4X.
- Enclosures Series 210804, 210805, 210807, 215808 and TA30H, die cast aluminum or stainless steel 316, conduit entry sizes ½ inch, ¾ inch NPT or ¾ inch NPT with reducer bushing H0310-01, assembled with one or more sensors/components Part Nos. 16 01 00 240, H0316-01 and G6 03 20 200. Encl. Type 4X.
- Model numbers iTHERM, type TM111, TM131, transmitter max. rated 10...40 Vdc, 3 W max; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control drawing 10000010342.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures TMT142 or TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT or M20x1.5, assembled with one or dual sensors; Encl. Type 4X; IP66/67
- Enclosures Series TA30H, TA30A or TA30D, die cast aluminum or stainless steel, conduit entry sizes ½ inch NPT or M20x1.5, assembled with one or dual sensors; Encl. Type 4X; IP66/67



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Type	Assembled transmitter	T-class	Ambient temperature range housing
TM111, TM131, T13, T14, T15, T53, T54; T55	TMT180	T6	$-40^{\circ}\text{C} \leq T_a \leq +50^{\circ}\text{C}$
		T5	$-40^{\circ}\text{C} \leq T_a \leq +65^{\circ}\text{C}$
		T4	$-40^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$
	TMT181*, TMT182*, TMT84, TMT85, TMT162 PA/FF, TMT142* TMT142B** TMT71/72	T6	$-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$
		T5	$-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
		T4	$-40^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$
	TMT162 HART	T6	$-50^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$
		T5	$-50^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$
		T4	$-50^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$
	TMT82	T6	$-50^{\circ}\text{C} \leq T_a \leq +58^{\circ}\text{C}$
		T5	$-50^{\circ}\text{C} \leq T_a \leq +75^{\circ}\text{C}$
		T4	$-50^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$
TMT8x with display	T6	$-40^{\circ}\text{C} \leq T_a \leq +55^{\circ}\text{C}$	
	T5	$-40^{\circ}\text{C} \leq T_a \leq +70^{\circ}\text{C}$	
	T4	$-40^{\circ}\text{C} \leq T_a \leq +85^{\circ}\text{C}$	

*For models T13, T14, T15, T53, T54; T55 only

**The maximum ambient temperature for model TMT142B is limited to +70 °C for the display models

Type	Insert diameter	T- class Max. surface	Process temperature range for assembled head transmitter TMT18x, TMT8x, TMT7x and TMT142B or with terminal block (P ≤ 50 mW)	Process temperature range for assembled field transmitter TMT162, TMT142*
TM111, TM131, T13**, T14**, T15, T53**, T54**, T55	3mm, 3mm(dual) 6mm dual	T6/T85°C	$-50^{\circ}\text{C} \leq T_p \leq +66^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +64^{\circ}\text{C}$
		T5/T100°C	$-50^{\circ}\text{C} \leq T_p \leq +81^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +79^{\circ}\text{C}$
		T4/T135°C	$-50^{\circ}\text{C} \leq T_p \leq +116^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +114^{\circ}\text{C}$
		T3/T200°C	$-50^{\circ}\text{C} \leq T_p \leq +181^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +179^{\circ}\text{C}$
		T2/T300°C	$-50^{\circ}\text{C} \leq T_p \leq +276^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +279^{\circ}\text{C}$
		T1/T450°C	$-50^{\circ}\text{C} \leq T_p \leq +426^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +424^{\circ}\text{C}$
	6mm	T6/T85°C	$-50^{\circ}\text{C} \leq T_p \leq +73^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +71^{\circ}\text{C}$
		T5/T100°C	$-50^{\circ}\text{C} \leq T_p \leq +88^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +86^{\circ}\text{C}$
		T4/T135°C	$-50^{\circ}\text{C} \leq T_p \leq +123^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +121^{\circ}\text{C}$
		T3/T200°C	$-50^{\circ}\text{C} \leq T_p \leq +188^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +186^{\circ}\text{C}$
		T2/T300°C	$-50^{\circ}\text{C} \leq T_p \leq +283^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +286^{\circ}\text{C}$
	T1/T450°C	$-50^{\circ}\text{C} \leq T_p \leq +433^{\circ}\text{C}$	$-50^{\circ}\text{C} \leq T_p \leq +431^{\circ}\text{C}$	

*For models T13, T14, T15, T53, T54; T55 only

**Single Seal device for process temperature of -50°C to +130°C, MWP 2,500 psi (Only applicable to T13, T14, T53 and T54 temperature sensor assemblies).



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CLASS 2258 83 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe and Non-Incendive Systems - For Hazardous Locations -Certified to U.S. Standards

Class I, Div. 2, Groups A, B, C and D

Temperature sensor assemblies in type of protection Non-incendive which consists of an enclosure with or without installed temperature transmitter and connected probe.

- Model numbers (Approval code "L") T13, T14, T53, T54 with TMT71/72 or TMT142B transmitter rated 10...36Vdc, 3 W max.; Install per- and refer for detailed ratings to Control dwg. 10000011304.

May be assembled with the following certified enclosure and component options:

- Enclosures TMT142 and TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT, assembled with one or more sensors/components Part Nos. H0316-01, H0316-03, H0316-04, H0324-01, G60100201, G60100202, G60100203, G60100204 (*) (**). Encl. Type 4X.
- Enclosures Series 215804, 215805, 215807, 215808 and TA30H, die cast aluminum, conduit entry sizes ½ inch, ¾ inch NPT or ¾ inch NPT with reducer H0310-01, assembled with one or more sensors/components Part Nos. H0316-01, H0316-03, H0316-04, H0324-01, G60100201, G60100202, G60100203, G60100204 (*). Encl. Type 4X.

- Model numbers T15, T55 with TMT71/72 or TMT142B transmitter rated 10...36Vdc, 3 W max.; Install per- and refer for detailed ratings to Control dwg 10000011304.

May be assembled with the following certified enclosure and component options:

- Enclosures TMT142 and TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT, assembled with one or more sensors/components Part Nos. 16 01 00 240, H0316-01 and G6 03 20 200. Encl. Type 4X.
- Enclosures Series 210804, 210805, 210807, 215808 and TA30H, die cast aluminum or stainless steel 316, conduit entry sizes ½ inch, ¾ inch NPT or ¾ inch NPT with reducer bushing H0310-01, assembled with one or more sensors/components Part Nos. 16 01 00 240, H0316-01 and G6 03 20 200. Encl. Type 4X.

Temperature sensor assemblies in type of protection Non-incendive which consists of an enclosure with or without installed temperature transmitter and connected probe.

- Model numbers iTHERM, type TM111, TM131, transmitter max. rated 10...40 Vdc, 3 W max; sensor rated max. 50 mW; Install per- and refer for detailed ratings to Control drawing 10000010342.

May be assembled with the following certified enclosure (explosion-proof) and component options:

- Enclosures TMT142, TMT162, die cast aluminum or stainless steel, conduit entry size ½ inch NPT or M20x1.5, assembled with one or dual sensors;. Encl. Type 4X; IP66/67
- Enclosures Series TA30H, die cast aluminum or stainless steel, conduit entry sizes ½ inch NPT or M20x1.5, assembled with one or dual sensors; Encl. Type 4X; IP66/67



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Type	Assembled transmitter	T-class	Ambient temperature range housing
TM111, TM131, T13*, T14*, T15*, T53*, T54*, T55*	TMT180	T6	-40°C ≤ Ta ≤ +50°C
		T5	-40°C ≤ Ta ≤ +65°C
		T4	-40°C ≤ Ta ≤ +85°C
	TMT84, TMT85, TMT162 PA/FF TMT142B TMT71/72	T6	-40°C ≤ Ta ≤ +55°C
		T5	-40°C ≤ Ta ≤ +70°C
		T4	-40°C ≤ Ta ≤ +85°C
	TMT162 HART	T6	-50°C ≤ Ta ≤ +55°C
		T5	-50°C ≤ Ta ≤ +70°C
		T4	-50°C ≤ Ta ≤ +85°C
	TMT82	T6	-50°C ≤ Ta ≤ +58°C
		T5	-50°C ≤ Ta ≤ +75°C
		T4	-50°C ≤ Ta ≤ +85°C
	TMT8x with display	T6	-40°C ≤ Ta ≤ +55°C
		T5	-40°C ≤ Ta ≤ +70°C
		T4	-40°C ≤ Ta ≤ +85°C

*Models T13, T14, T15, T53, T54; T55 are only valid with TMT71/72 and TMT142B

Type	Insert diameter	T- class Max. surface	Process temperature range for assembled head transmitter TMT180, TMT8x, TMT7x and TMT142B or with terminal block (P ≤ 50 mW)	Process temperature range for assembled field transmitter TMT162
TM111, TM131, T13*, T14*, T15*, T53*, T54*, T55*	3mm, 3mm(dual) 6mm dual	T6/T85°C	-50°C ≤ Tp ≤ +66°C	-50°C ≤ Tp ≤ +64°C
		T5/T100°C	-50°C ≤ Tp ≤ +81°C	-50°C ≤ Tp ≤ +79°C
		T4/T135°C	-50°C ≤ Tp ≤ +116°C	-50°C ≤ Tp ≤ +114°C
		T3/T200°C	-50°C ≤ Tp ≤ +181°C	-50°C ≤ Tp ≤ +179°C
		T2/T300°C	-50°C ≤ Tp ≤ +276°C	-50°C ≤ Tp ≤ +279°C
		T1/T450°C	-50°C ≤ Tp ≤ +426°C	-50°C ≤ Tp ≤ +424°C
	6mm	T6/T85°C	-50°C ≤ Tp ≤ +73°C	-50°C ≤ Tp ≤ +71°C
		T5/T100°C	-50°C ≤ Tp ≤ +88°C	-50°C ≤ Tp ≤ +86°C
		T4/T135°C	-50°C ≤ Tp ≤ +123°C	-50°C ≤ Tp ≤ +121°C
		T3/T200°C	-50°C ≤ Tp ≤ +188°C	-50°C ≤ Tp ≤ +186°C
		T2/T300°C	-50°C ≤ Tp ≤ +283°C	-50°C ≤ Tp ≤ +286°C
		T1/T450°C	-50°C ≤ Tp ≤ +433°C	-50°C ≤ Tp ≤ +431°C

*Models T13, T14, T15, T53, T54; T55 are only valid with TMT71/72 and TMT142B



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Conditions of Acceptability:

- The device may only be powered by a power supply unit with a limited energy electric circuit in accordance with CAN/CSA-C22.2 No. 61010-1-12 / UL Std. No. 61010-1 (3rd Edition) chapter 6.3.2 and 9.4 or class 2 according to CSA 223/UL 1310.
- No evaluations of functional safety and performance characteristics have been performed.
- Equipment is only to be installed by trained personal in accordance to the installation, set-up, operation and maintenance.
- The following atmospheric conditions shall be guaranteed when the equipment is operated in hazardous locations:
 - ambient and process temperature as specified in the control drawings;
 - pressure 80 kPa (0,8 bar) to 110 kPa (1,1 bar); and
 - air with normal oxygen content, typically 21 % v/v.
- For the use as an equipment in Class I, Division 2 applications, the field transmitter shall not be connected or disconnected unless the area is known to be non-hazardous.
- If the field transmitter was used in a Class I, Division 2 application it is not allowed to use it in Class I, Division 1 applications in the future.
- Final acceptance of this equipment when installed is subject to the local Authorities Having Jurisdiction.
- The end user shall ensure appropriate earthing of the metallic field housing upon installation.
- All conduits must be assembled with a minimum of five full threads engagement
- For Class II i.e. Dust application, use dust tight seals.



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APPLICABLE REQUIREMENTS

- CAN/CSA C22.2 No. 0-M91 (R2001) - General Requirements - Canadian Electrical Code, Part II
- CSA Std. C22.2 No 0.4-M1982 - Bonding and Grounding of Electrical Equipment
- CSA Std. C22.2 No. 0.5-M1982 - Threaded Conduit Entries
- CSA Std. C22.2 No. 25: 1992 - Enclosures for Use in Class II, Groups E, F and G – Hazardous Locations
- CSA Std. C22.2 No. 30-M1986 - Explosion-Proof Enclosures for Use in Class I, Hazardous Locations
- C22.2 No. 94.2-15 - Enclosures for electrical equipment, environmental considerations
- CSA Std. C22.2 No. 213-M1987 - Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations
- UL-121201-2017 9th Edition - Nonincendive electrical equipment for use in Class I and II, Division 2 and Class III, Divisions 1 and 2 hazardous (classified) locations
- ANSI/ISA-12.27.01-2003 - Requirements for Process Sealing Between Electrical Systems and Flammable or Combustible Process Fluids
- CAN/CSA-C22.2 No. 61010-1-12 - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use, Part 1: General Requirements
- FM 3600:2018 - Approval Standard for Electrical Equipment for Use in Hazardous (Classified) Locations - General Requirements
- FM 3611:2004 - Approval Standard for Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations
- FM 3615:2018 - Approval Standard for Explosionproof Electrical Equipment General Requirements
- FM 3616:2011 - Approval Standard for Dust-Ignitionproof Electrical Equipment General Requirements
- UL Std. No. 61010-1 (3rd Edition) - Safety Requirements for Electrical Equipment for Measurement, Control, and Laboratory Use - Part 1: General Requirements
- UL 50E (Second Edition) - Enclosures for Electrical Equipment, Environmental Considerations



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MARKINGS

The manufacturer is required to apply the following markings:

- Products shall be marked with the markings specified by the particular product standard.
- Products certified for Canada shall have all Caution and Warning markings in both English and French.

Additional bilingual markings not covered by the product standard(s) may be required by the Authorities Having Jurisdiction. It is the responsibility of the manufacturer to provide and apply these additional markings, where applicable, in accordance with the requirements of those authorities.

The products listed are eligible to bear the CSA Mark shown with adjacent indicators 'C' and 'US' for Canada and US (indicating that products have been manufactured to the requirements of both Canadian and U.S. Standards) or with adjacent indicator 'US' for US only or without either indicator for Canada only.

The marking by direct laser printing shall be on stainless steel or AlMg1 with Mg portion < 0.6% nameplates permanently attached with screws or ring tagged. Alternatively, approved adhesive nameplates can be used for models TM111 and TM131, see below.

- Manufacturer's name: " Endress + Hauser Wetzer GmbH Co. KG ", or CSA Master Contract Number "200600", adjacent to the CSA Mark in lieu of manufacturer's name.
- Model designation: As specified in the PRODUCTS section, above.
- Electrical ratings: As specified in the PRODUCTS section, above.
- Ambient temperature rating: As specified in the PRODUCTS section, above.
- Manufacturing date in MMY format, or serial number, traceable to year and month of manufacture.
- Enclosure ratings: As specified in the PRODUCTS section, above.
- Hazardous Location designation: As specified in the PRODUCTS section, above (may be abbreviated).
- Temperature code: As specified in the PRODUCTS section, above.
- - Single Seal Device, Process temperature range, Working Pressure Range (Applicable for TU13, TU14, TU53, TU54 temperature assemblies with thermowells)
- The following words:
 - "DO NOT REMOVE COVER WHEN CIRCUITS ARE ALIVE" or "Keep cover tight while circuits are alive"; "Garder le couvercle bien fermé tant que les circuits sont sous tension"
 - "SEAL ALL CONDUITS WITHIN 18 INCHES" or "A seal shall be installed within 18" of the enclosure"; "Un scellement doit être installé à moins de 18" du boîtier."(Applicable for enclosures TMT142, TMT162 and TA30H only).
 - Install per drawing 10000010342, 16 01 00 115, 16 01 00 116, 16 01 00 117, 16 01 00 118, 10000011304, as applicable

Symbol	Reference	Title
	IEC 60417-5031	Direct current



Supplement to Certificate of Compliance

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Master Contract: 200600

The products listed, including the latest revision described below, are eligible to be marked in accordance with the referenced Certificate.

Product Certification History

Project	Date	Description
80062682	2021-04-14	Implementation of the CSA certified transmitter, type TMT142 HART7. Introduce the TMT71 and TMT72 models as Non-Incendive option with Models TM111 and TM131 and as option L for the Txx-series
80032559	2020-02-18	Update Report 1733312 to implement head transmitter type TMT7x to models T13, T14, T15, T53, T54, T55 for Class I, II, III, Div. 1 and to update existing control and name plate drawings based on former evaluation. In addition, to include the TA30A and TA30D enclosures with type 4X rating and in combination with TM111 and TM131
70192958	2019-09-16	Update to Report 1733312 to include the cCSAus certification of RTD temperature sensor assemblies, models TM111-*** and TM131-*** Class I, Div.1, Groups A, B, C and D; Class II, Div.1, Groups E, F and G; Class III; Class I, Div. 2, Groups A, B, C and D
0002428685	2012-01-25	Update to include Single Seal Device markings.
0002450362	2011-11-18	Update to include Connector Head, Type TA30H.
0002214843	2010-04-09	Update to include Terminal Head TA30H with KEMA test report 211363800/3.
0001808922	2006-06-27	Update to include Div. 1 marking and minor report revision.
0001796587	2006-06-14	Update to include Non-Incendive certification
0001766033	2006-03-28	Update to include Div. 2 and Ordinary locations referenced from existing submitter's reports.
0001733312	2005-12-16	Temperature sensor assemblies for Class 1 Groups A, B, C, & D; Class II, Groups E,F & G; Class III Hazardous locations