Certificate of Compliance

Certificate:	70187832	**Master Contract:**	200600
Project:	80257634	**Date Issued:**	2025-08-11
Issued to:	**Endress+Hauser Wetzer GmbH Co. KG** **Obere Wank 1** **Nesselwang, Bavaria 87484** **Germany** **Attention:** Eva Rizzo	**Issued by:**	*Anil Sodhi* Anil Sodhi

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.

PRODUCTS

Class 2258 02 PROCESS CONTROL EQUIPMENT - For Hazardous Locations
Class 2258 04 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations
Class 2258 82 PROCESS CONTROL EQUIPMENT - For Hazardous Locations - Certified to US Standards
Class 2258 84 PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations - Certified to US Standards

CLASS 2258 04 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity – For Hazardous Locations
CLASS 2258 84 - PROCESS CONTROL EQUIPMENT - Intrinsically Safe, Entity - For Hazardous Locations – Certified to US Standards

Model(s)
iTEMP Temperature Transmitter Head. Type TMT71, TMT72, L20221, L20222 and TMT86

Ex ia IIC T6…T4 Ga
Ex ia IIC T6…T4 Gb
Class I, Zone 0, AEx ia IIC T6…T4 Ga
Class I, Zone 1, AEx ia IIC T6…T4 Gb
I.S. Class I, Division 1, Groups A, B, C, D; T6…T4

iTEMP Temperature Transmitter Head. Type TMT71,TMT72, L20221 and L20222 without optional display or field housing. Intrinsically Safe when installed per drawing 10000010389.
Models TMT71-CEb1deA1gh, and TMT72-CEb1deA1gh
Models L20221-CEb1deA1NNgh, and L20222-CEb1deA1NNgh
Where:
b = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
d = Electrical connections: A (screw terminals), or B (spring terminals).
e = Field housing: AA (without), AB (W/o, mounting set DIN standard), AC (W/o, mounting set US - M4 screws)
g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).
h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types
Ambient temperature T6: -50 °C ≤ Ta ≤ +40 °C, T5…T4: -50 °C ≤ Ta ≤ +60 °C.

Terminals	Entity Parameters		
Terminals / function… 1/+ and 2/-	Ui = 30 V Ii = 100 mA Pi = 800 mW Li = negligibly small Ci = negligibly small		
Terminals / function… In each case for 3 and 4; 5 and 6	U_O / V_{OC} = 4.3 V I_O / I_{SC} = 4.8 mA P_O = 5.2 mW Maximum permissible external inductance (Lo) and capacitance (Co)		
	Groups	Lo	Co
	Group IIC	10 mH	100 µF
	Group IIB	1 H	10 µF
	Group IIA	1 H	10 µF

iTEMP Temperature Transmitter Head. Type TMT86 without optional display or field housing.
Intrinsically Safe when installed per drawing 10000013591.
Models TMT86-CEb1deeA1
Where:
b = Output signal: A (PROFINET w. Ethernet-APL/SPE, 10Mbit/s, 2-wire)
d = Electrical connections: A (screw terminals), or B (Push-in terminals).
ee = Field housing: AA (without), AB (W/o, mounting set DIN standard), AC (W/o, mounting set US - M4 screws)

Ambient temperature T6: -52 °C ≤ Ta ≤ +40 °C, T5…T4: -52 °C ≤ Ta ≤ +60 °C

Terminals	Entity Parameters		
Terminals / function… 1/+ and 2/-	Ui = 17.5 V Ii = 380 mA Li = negligibly small Ci = negligibly small Respectively as a field device appropriate for connection to a field bus system according to the FISCO model		
Terminals / function… In each case for 3 and 4; 5 and 6	U_O / V_{OC} = 3.71 V I_O / I_{SC} = 5.24 mA P_O = 4.86 mW Maximum permissible external inductance (Lo) and capacitance (Co)		
	Groups	Lo	Co
	Group IIC	50 mH	4 µF
	Group IIB	100 mH	24 µF
	Group IIA	100 mH	64 µF

Conditions of Acceptability:

1. This equipment is for use under atmospheric conditions only, the permissible pressure range is
   8. to 1.1 bar (80 to 110 kPa) and the permissible normal oxygen content is typically 21 % v/v.
2. These models are provided without enclosure. They shall be installed within a suitable end-use enclosure, providing a degree of protection of not less than IP20 according to CSA/UL 60079-0 and CSA/UL 60079-11. The ambient temperature within the end-use enclosure shall not exceed the limits of the permissible ambient temperature range. Clearances, creepage distances and separations as defined in CSA/UL 60079-11 must be considered for the installation. The final combination shall be subjected to acceptance of the local authority having jurisdiction.
3. The end user shall ensure appropriate earthing of the metallic accessories if used, and the DIN rail clip upon installation.
4. Only simple apparatus shall be connected to the sensor terminals. Simple apparatus is defined as a device that neither generates or stores more than 1.2V, 0.1A, 0.25 mW, or 20 uJ. Examples are thermocouples and RTDs.
5. If the transmitter head TMT71 / TMT72 / L20221 / L20222 / TMT86 has been used in a Zone 1 (EPL Gb), Zone 2 (EPL Gc) or Class I, Division 2 application, it is not allowed to be used in Zone 0 (EPL Ga) or Class I, Division 1 applications in the future.

Ex ia IIC T6…T4 Gb
Class I, Zone 1, AEx ia IIC T6…T4 Gb

iTEMP Temperature Transmitter. Type TMT71,TMT72, L20221 and L20222 with optional display. Intrinsically Safe when installed per drawing 10000010389.
Models TMT71-CEb1deA1gh, and TMT72-CEb1deA1gh
Models L20221-CEb1deA1NNgh, and L20222-CEb1deA1NNgh
Where:
b = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
d = Electrical connections: A (screw terminals), or B (spring terminals).
e = Field housing: AA (without), AB (W/o, mounting set DIN standard), AC (W/o, mounting set US - M4 screws)
g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).
h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types

Ambient temperature: T6: -50 °C ≤ Ta ≤ +55 °C, T5: -50 °C ≤ Ta ≤ +70 °C, T4: -50 °C ≤ Ta ≤ +85 °C

Terminals	Entity Parameters		
Terminals / function… 1/+ and 2/-	Ui = 30 V Ii = 100 mA Pi = 800 mW Li = negligibly small Ci = negligibly small		
Terminals / function… In each case for 3 and 4; 5 and 6	U_O / V_{OC} = 4.3 V I_O / I_{SC} = 4.8 mA P_O = 5.2 mW Maximum permissible external inductance (Lo) and capacitance (Co)		
	Groups	Lo	Co
	Group IIC	10 mH	100 µF
	Group IIB	1 H	10 µF
	Group IIA	1 H	10 µF

iTEMP Temperature Transmitter. Type TMT86 with optional display. Intrinsically Safe when installed per drawing 10000013591.
Models TMT86-CEb1deeA1
Where:
b = Output signal: A (PROFINET w. Ethernet-APL/SPE, 10Mbit/s, 2-wire)
d = Electrical connections: A (screw terminals), or B (Push-in terminals).
ee = Field housing: AA (without), AB (W/o, mounting set DIN standard), AC (W/o, mounting set US - M4 screws)

Ambient temperature: T6: -52 °C ≤ Ta ≤ +55 °C, T5: -52 °C ≤ Ta ≤ +70 °C, T4: -52 °C ≤ Ta ≤ +85 °C

Terminals	Entity Parameters		
Terminals / function… 1/+ and 2/-	Ui = 17.5 V Ii = 380 mA Li = negligibly small Ci = negligibly small Respectively as a field device appropriate for connection to a field bus system according to the FISCO model		
Terminals / function… In each case for 3 and 4; 5 and 6	U_O / V_{OC} = 3.71 V I_O / I_{SC} = 5.24 mA P_O = 4.86 mW Maximum permissible external inductance (Lo) and capacitance (Co)		
	Groups	Lo	Co
	Group IIC	50 mH	4 µF
	Group IIB	100 mH	24 µF
	Group IIA	100 mH	64 µF

Conditions of Acceptability:

1. This equipment is for use under atmospheric conditions only, the permissible pressure range is 0.8 to 1.1 bar (80 to 110 kPa) and the permissible normal oxygen content is typically 21 % v/v.
2. These models are provided without enclosure. They shall be installed within a suitable end-use enclosure, providing a degree of protection of not less than IP20 according to CSA/UL 60079-0 and CSA/UL 60079-11. The ambient temperature within the end-use enclosure shall not exceed the limits of the permissible ambient temperature range. Clearances, creepage distances and separations as defined in CSA/UL 60079-11 must be considered for the installation. The final combination shall be subjected to acceptance of the

local authority having jurisdiction.

3. The end user shall ensure appropriate earthing of the metallic accessories if used, and the DIN rail clip upon installation.
4. Only simple apparatus shall be connected to the sensor terminals. Simple apparatus is defined as a device that neither generates or stores more than 1.2V, 0.1A, 0.25 mW, or 20 uJ. Examples are thermocouples and RTDs.
5. If the transmitter head TMT71 / TMT72 / L20221 / L20222/ TMT86 has been used in a Zone 1 (EPL Gb), Zone 2 (EPL Gc) or Class I, Division 2 application, it is not allowed to be used in Zone 0 (EPL Ga) or Class I, Division 1 applications in the future.
6. The CDI interface is only allowed to be used for connecting the display type TID10. Irrespective of inside or outside the hazardous area, no other circuits/equipment are allowed to be connected to the CDI Interface.

Ex ia [ia Ga] IIC T6…T4 Gb
Class I, Zone 1, AEx ia [ia Ga] IIC T6…T4 Gb
Class I, Division 2, Groups A, B, C, D; T6…T4 (Non Incendive Field Wiring (NIFW))
Class I, Division 2, Groups A, B, C, D; T6…T4 – NIFW and Associated Apparatus for Class I, Division 1, Groups A, B, C, D

iTEMP Temperature Transmitter. Type TMT71,TMT72, L20221 and L20222 with optional field housing. With, or without optional display. With, or without optional display. Intrinsically Safe /Non-Incendive Field Wiring when installed per drawing 10000010389.
Models TMT71-CEb1deA1gh, and TMT72-CEb1deA1gh
Models L20221-CEb1deA1NNgh, and L20222-CEb1deA1NNgh
Where:

b = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
d = Electrical connections: A (screw terminals), or B (spring terminals).
e = Field housing:
A1 (TA30A, Alu, 2x M20x1.5, w/o display window, universal housing with hinged cover)
A2 (TA30A, Alu, 2x M20x1.5, glass display window, universal housing with hinged cover)
A3 (TA30A, Alu, 2x NPT1, w/o display window, universal housing with hinged cover)
A4 (TA30A, Alu, 2x NPT1, glass display window, universal housing)
D1 (TA30D, Alu, 2x M20x1.5, universal housing with hinged cover high)
D2 (TA30D, Alu, 2x NPT1/2, universal housing with hinged cover high)
H1 (TA30H, Alu, 2x M20x1.5, w/o display window, explosion-proof enclosure)
H2 (TA30H, Alu, 2x M20x1.5, glass display window, explosion-proof enclosure)
H3 (TA30H, Alu, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H4 (TA30H, Alu, 2x NPT1/2, glass display window, explosion-proof enclosure)
H5 (TA30H, 316L, 2x M20x1.5, w/o display window, explosion-proof enclosure)
H6 (TA30H, 316L, 2x M20x1.5, glass display window, explosion-proof enclosure)
H7 (TA30H, 316L, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H8 (TA30H, 316L, 2x NPT1/2, glass display window, explosion-proof enclosure)
g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).
h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types

Ambient temperature: T6: -50 °C ≤ Ta ≤ +55 °C, T5: -50 °C ≤ Ta ≤ +70 °C, T4: -50 °C ≤ Ta ≤ +85 °C

Terminals	NIFW/ Entity Parameters
Terminals / function… 1/+ and 2/-	Ui = 30 V Ii = 100 mA Pi = 800 mW Li = negligibly small Ci = negligibly small

Terminals	NIFW/ Entity Parameters		
Terminals / function… In each case for 3 and 4; 5 and 6	U_O / V_{OC} = 4.3 V I_O / I_{SC} = 4.8 mA P_O = 5.2 mW Maximum permissible external inductance (Lo) and capacitance (Co)		
	Groups	Lo	Co
	Group IIC	10 mH	100 µF
	Group IIB	1 H	10 µF
	Group IIA	1 H	10 µF

iTEMP Temperature Transmitter. Type TMT86 with optional field housing. With, or without optional display. Intrinsically Safe /Non-Incendive Field Wiring when installed per drawing
10000013591.
Models TMT86-CEb1deeA1
Where:
b = Output signal: A (PROFINET w. Ethernet-APL/SPE, 10Mbit/s, 2-wire)
d = Electrical connections: A (screw terminals), or B (Push-in terminals).
e = Field housing:
A1 (TA30A, Alu, 2x M20x1.5, w/o display window, universal housing with hinged cover)
A2 (TA30A, Alu, 2x M20x1.5, glass display window, universal housing with hinged cover)
A3 (TA30A, Alu, 2x NPT1, w/o display window, universal housing with hinged cover)
A4 (TA30A, Alu, 2x NPT1, glass display window, universal housing)
D1 (TA30D, Alu, 2x M20x1.5, universal housing with hinged cover high)
D2 (TA30D, Alu, 2x NPT1/2, universal housing with hinged cover high)
H1 (TA30H, Alu, 2x M20x1.5, w/o display window, explosion-proof enclosure)
H2 (TA30H, Alu, 2x M20x1.5, glass display window, explosion-proof enclosure)
H3 (TA30H, Alu, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H4 (TA30H, Alu, 2x NPT1/2, glass display window, explosion-proof enclosure)
H5 (TA30H, 316L, 2x M20x1.5, w/o display window, explosion-proof enclosure)
H6 (TA30H, 316L, 2x M20x1.5, glass display window, explosion-proof enclosure)
H7 (TA30H, 316L, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H8 (TA30H, 316L, 2x NPT1/2, glass display window, explosion-proof enclosure)

Ambient temperature: T6: -50 °C ≤ Ta ≤ +55 °C, T5: -50 °C ≤ Ta ≤ +70 °C, T4: -50 °C ≤ Ta ≤ +85 °C

Terminals	Entity Parameters		
Terminals / function… 1/+ and 2/-	Ui = 17.5 V Ii = 380 mA Li = negligibly small Ci = negligibly small Respectively as a field device appropriate for connection to a field bus system according to the FISCO model		
Terminals / function… In each case for 3 and 4; 5 and 6	U_O / V_{OC} = 3.71 V I_O / I_{SC} = 5.24 mA P_O = 4.86 mW Maximum permissible external inductance (Lo) and capacitance (Co)		
	Groups	Lo	Co
	Group IIC	50 mH	4 µF

Terminals	Entity Parameters		
	Group IIB	100 mH	24 µF
	Group IIA	100 mH	64 µF

Conditions of Acceptability:

1. Due to the risk of discharge the non-metallic parts of the equipment and of all non-metallic accessories have to be protected from electrostatic charging during installation and operation (e.g. only wipe with damp cloth and do not expose to high voltage fields).
2. The equipment is for use under atmospheric conditions only, the permissible pressure range is 0.8 to 1.1 bar (80 to 110 kPa) and the permissible normal oxygen content is typically 21 % v/v.
3. The end user shall ensure appropriate earthing of the metallic field housing (optional) and all metallic accessories if used (wall or pipe mounting accessories for the field housing and the DIN rail clip for the head transmitter) upon installation.
4. Only simple apparatus shall be connected to the sensor terminals. Simple apparatus is defined as a device that neither generates nor stores more than 1.2V, 0.1A, 0.25 mW, or 20 uJ. Examples are thermocouples and RTDs.
5. The CDI interface is only allowed to be used for connecting the display type TID10. Irrespective of inside or outside the hazardous area, no other circuits/equipment is allowed to be connected to the CDI Interface.

Ex ib [ia Ga] IIC T6…T4 Gb
Class I, Zone 1, AEx ib [ia Ga] IIC T6…T4 Gb
Class I, Division 2, Groups A, B, C, D; T6…T4 (Non Incendive Field Wiring (NIFW))
Class I, Division 2, Groups A, B, C, D; T6…T4 – NIFW and Associated Apparatus for Class I, Division 1, Groups A, B, C, D

iTEMP Temperature Transmitter. Type TMT71,TMT72, L20221 and L20222 DINrail. Intrinsically Safe /Non-Incendive Field Wiring when installed per drawing 10000010382.
Models TMT71-CEbcdAAA1gh, and TMT72-CEbcdAAA1gh
Models L20221-CEbcdAAA1NNgh, and L20222-CEbcdAAANN1gh
Where:
b = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
c = 2 (DIN rail, IEC 60751, on top terminal for power supply), 3 (DIN rail, IEC 60751, on bottom terminal for power supply)
d = Electrical connections: A (screw terminals), or B (spring terminals)
g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).
h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types

Ambient temperature: T6: -50 °C ≤ Ta ≤ +43 °C, T5: -50 °C ≤ Ta ≤ +58 °C, T4: -50 °C ≤ Ta ≤ +85 °C

Terminals	NIFW/ Entity Parameters		
Terminals / function… 1/+ and 2/-	Ui = 30 V Ii = 100 mA Pi = 700 mW Li = negligibly small Ci = negligibly small		
Terminals / function… In each case for 3 and 4; 5 and 6	U_O / V_{OC} = 4.3 V I_O / I_{SC} = 4.8 mA P_O = 5.2 mW Maximum permissible external inductance (Lo) and capacitance (Co)		
	Groups	Lo	Co
	Group IIC	10 mH	100 µF
	Group IIB	1 H	10 µF

Terminals	NIFW/ Entity Parameters		
	Group IIA	1 H	10 µF

Conditions of Acceptability:

1. Due to the risk of discharge, the non-metallic parts of the equipment and of all non-metallic accessories have to be protected from electrostatic charging during installation and operation (e.g. only wipe with a damp cloth and do not expose to high voltage fields).
2. These models are provided without enclosure. They shall be installed within a suitable end-use enclosure, providing a degree of protection of not less than IP20 according to CSA/UL 60079-0 and CSA/UL 60079-11. The ambient temperature within the end-use enclosure shall not exceed the limits of the permissible ambient temperature range. Clearances, creepage distances, and separations as defined in CSA/UL 60079-11 must be considered for the installation. The final combination shall be subjected to acceptance of the local authority having jurisdiction.
3. The equipment is for use under atmospheric conditions only, the permissible pressure range is 0.1 to 1.1 bar (80 to 110 kPa) and the permissible normal oxygen content is typically 21 % v/v.
4. In hazardous area it is not permitted to use the CDI interface for configuration.
5. Only simple apparatus shall be connected to the sensor terminals. Simple apparatus is defined as a device that neither generates or stores more than 1.2V, 0.1A, 0.25 mW, or 20 uJ. Examples are thermocouples and RTDs.
6. The end user shall ensure appropriate earthing of the metallic field housing (optional) and all metallic accessories if used (wall or pipe mounting accessories for the field housing and the DIN rail clip for the head transmitter) upon installation.

CLASS 2258 02 - PROCESS CONTROL EQUIPMENT - For Hazardous Locations
CLASS 2258 82 - PROCESS CONTROL EQUIPMENT - - For Hazardous Locations - Certified to US Standards

Model(s)
iTEMP Temperature Transmitter Head. Type TMT71, TMT72, L20221, L20222 and TMT86

Class I, Division 1, Groups A, B, C & D; Class II, Division 1 Groups E, F & G; Class III:

iTEMP Temperature Transmitter. Type TMT71, TMT72, L20221 and L20222. Rated 10…36 Vdc, 23 mA with optional Display Module type TID10 or iTEMP Temperature Transmitter. Type TMT86. Rated 9…30 Vdc, 0.7W with optional Display Module type TID10. Provided with die cast aluminum or stainless steel enclosure. Conduit entry sizes 1/2 inch NPT or M20 x 1.5, assembled with one or dual sensors; Enclosure Type 4X; IP66/67. Explosion-proof when installed per Drawing 10000010390.

Models TMT71-CFb1deA1gh, TMT72-CFb1deA1gh, and TMT86-CFb1deeA1
Models L20221-CFb1deA1NNgh, and L20222-CFb1deA1NNgh
Where:

b = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), for TMT86: PROFINET w. Ethernet APL/SPE, 10Mbit/s, 2-wire) or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
d = Electrical connections: A (screw terminals), or B (spring terminals).
e = Field housing:
H1 (TA30H, Alu, 2x M20x1.5, w/o display window, explosion-proof enclosure)
H2 (TA30H, Alu, 2x M20x1.5, glass display window, explosion-proof enclosure)
H3 (TA30H, Alu, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H4 (TA30H, Alu, 2x NPT1/2, glass display window, explosion-proof enclosure)
H5 (TA30H, 316L, 2x M20x1.5, w/o display window, explosion-proof enclosure)
H6 (TA30H, 316L, 2x M20x1.5, glass display window, explosion-proof enclosure)
H7 (TA30H, 316L, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H8 (TA30H, 316L, 2x NPT1/2, glass display window, explosion-proof enclosure)

g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).
h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types

T-class	iTEMP TMT71/TMT72/L20221/L20222 and TMT86 **Ambient temperature range**	
	Without display TID10	**With** display TID10
T4/T135°C	-50 °C ≤ Ta ≤ +85 °C	-40 °C ≤ Ta ≤ +85 °C
T5/T100°C	-50 °C ≤ Ta ≤ +80 °C	-40 °C ≤ Ta ≤ +80 °C
T6/T85°C	-50 °C ≤ Ta ≤ +70 °C	-40 °C ≤ Ta ≤ +70 °C

Conditions of Acceptability:

1. The equipment is for use under atmospheric conditions only, the permissible pressure range is 0.8 bar to 1.1 bar (80 to 110 kPa) and the permissible normal oxygen content is typically 21 % v/v.
2. The end user shall ensure appropriate earthing of the metallic field housing and all metallic accessories if used (wall or pipe mounting accessories for the field housing and the DIN rail clip for the head transmitter) upon installation.
3. The CDI interface is only allowed to be used for connecting the display type TID10. Irrespective of inside or outside the hazardous area, no other circuits/equipment is allowed to be connected to the CDI Interface.
4. This equipment 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 and ANSI/UL 61010-1 chapter 6.3.1/6.3.2 and 9.4, or Class 2 as defined in the Canadian Electrical Code C22.1, Section 16-200 and/or National Electrical Code (NFPA 70), article 725.121.

Ex ec IIC Gc
Class I, Zone 2, AEx ec IIC Gc
Class I, Division 2, Groups A, B, C, D;

- COMPONENT: iTEMP Temperature Transmitter. Type TMT71, TMT72, L20221 and L20222 DINrail. Rated 11…36 Vdc, 23 mA Suitable for Division 2 or Zone 2 when installed per drawing 10000010382. Pollution degree 2. Ambient temperature range -50°C up to +85°C as per Conditions of Acceptability for Component/Schedule of limitations

Models TMT71-CEbcdAAA1gh, and TMT72-CEbcdAAA1gh
Models L20221-CEbcdAAA1NNgh, and L20222-CEbcdAAA1NNgh
Where:
b = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
c = 2 (DIN rail, IEC 60751, on top terminal for power supply), 3 (DIN rail, IEC 60751, on bottom terminal for power supply)
d = Electrical connections: A (screw terminals), or B (spring terminals)
g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).
h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types

Conditions of Acceptability for Component / Schedule of limitations:

1. Due to the risk of discharge, the non-metallic parts of the equipment and of all non-metallic accessories have to be protected from electrostatic charging during installation and operation (e.g. only wipe with a damp cloth and do not expose to high voltage fields).
2. For use in the type of protection increased safety Ex ec, and for Zone 2 (EPL Gc), and Class I, Division 2 applications, the transmitter TMT71/TMT72/L20221/L20222 shall be installed completely inside an additional enclosure, providing a degree of protection of not less than IP54 according to CSA/UL 60079-0 and CSA/UL 60079-7. The ambient temperature within the end use enclosure shall not exceed the limits of the permissible ambient temperature range. Clearances, creepage distances, and separations

as defined in CSA/UL 60079-7 must be considered for the installation.

3. If the TMT71/TMT72/L20221/L20222 transmitter was used in a Zone 2 (EPL Gc) or Class I, Division 2 application it is not allowed to use it in Zone 1 (EPL Gb), Zone 0 (EPL Ga) or Class I, Division 1 applications in the future.
4. The use of the display type TID10 with the head transmitter TMT71/TMT72/L20221/L20222 by connecting display to the CDI interface of the head transmitter is only permitted for Zone 2 (EPL Gc) and Class I, Division 2 applications.
5. The use of the CDI interface is not allowed in Hazardous locations.
6. Final acceptance of this equipment when installed is subject to the jurisdiction of the local inspection authority.
7. The end user shall ensure appropriate earthing of the metallic field housing (optional) and all metallic accessories if used (wall or pipe mounting accessories for the field housing and the DIN rail clip for the head transmitter) upon installation.
8. These components do not have any surface that achieves a temperature greater than 135°C/100°C/85°C with a 5K safety factor when operated under full load conditions at an ambient of range of 85°C/58°C/43°C respectively.

- COMPONENT: iTEMP Temperature Transmitter Head. Type TMT71, TMT72, L20221 and L20222. Rated 10…36 Vdc, 23 mA with or without optional display Suitable for Division 2 or Zone 2 when installed per drawing 10000010389. Pollution degree 2

Models TMT71-CEb1deA1gh, and TMT72-CEb1deA1gh
Models L20221-CFb1deA1NNgh, and L20222-CFb1deA1NNgh
Where:
B = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
d = Electrical connections: A (screw terminals), or B (spring terminals).
e = Field housing: AA (without), AB (W/o, mounting set DIN standard), AC (W/o, mounting set US - M4 screws)
g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).
h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types

- COMPONENT: iTEMP Temperature Transmitter Head. Type TMT86. Rated 9…30 Vdc, 0.7W with or without optional display Suitable for Division 2 or Zone 2 when installed per drawing 10000013591. Pollution degree 2

Models TMT86-CEb1deeA1
Where:
b = Output signal: A (PROFINET w. Ethernet-APL/SPE, 10Mbit/s, 2-wire)
d = Electrical connections: A (screw terminals), or B (Push-in terminals).

T-class compatibility	iTEMP TMT71/TMT72/L20221/L20222 and TMT86 **Ambient temperature range**	
	Without display TID10	**With** display TID10
T4	-50 °C ≤ Ta ≤ +85 °C	-40 °C ≤ Ta ≤ +85 °C
T5	-50 °C ≤ Ta ≤ +70 °C	-40 °C ≤ Ta ≤ +70 °C
T6	-50 °C ≤ Ta ≤ +55 °C	-40 °C ≤ Ta ≤ +55 °C

Conditions of Acceptability for Component / Schedule of limitations:

1. Due to the risk of discharge, the non-metallic parts of the equipment and of all non-metallic accessories have to be protected from electrostatic charging during installation and operation (e.g. only wipe with a damp cloth and do not expose to high voltage fields).
2. For use in the type of protection increased safety Ex ec, and for Zone 2 (EPL Gc), and Class I, Division 2 applications, the transmitter TMT71/TMT72/L20221/L20222/TMT86 shall be installed completely inside an additional enclosure, providing a degree of protection of not less than IP54 according to CSA/UL 60079-0 and CSA/UL 60079-7. The ambient temperature within the end use enclosure shall not exceed the limits of the permissible ambient temperature range. Clearances, creepage distances, and separations as defined in CSA/UL 60079-7 must be considered for the installation.

3. For the use as an equipment in type of protection increased safety Ex ec, and for Zone 2 (EPL Gc), and Class I, Division 2 applications, the head transmitter TMT71/TMT72/L20221/L20222/TMT86 shall not be connected or disconnected unless the area is known to be non-hazardous. The same applies for the connection and disconnection of the display type TID10.
4. If the head transmitter TMT71/TMT72/L20221/L20222/TMT86 was used in a Zone 2 (EPL Gc) or Class I, Division 2 application it is not allowed to use it in Zone 1 (EPL Gb), Zone 0 (EPL Ga) or Class I, Division 1 applications in the future.
5. The use of the display type TID10 with the head transmitter TMT71/TMT72/L20221/L20222/TMT86 by connecting display to the CDI interface of the head transmitter is only permitted for Zone 2 (EPL Gc) and Class I, Division 2 applications.
6. The CDI interface is only allowed to be used for connecting the display type TID10 for head transmitter Type TMT71/TMT72/TMT86. Irrespective of inside or outside the hazardous area, no other circuits/equipment is allowed to be connected to the CDI Interface.
7. The use of the additional field housing (optional) with the head transmitter TMT71/TMT72/L20221/L20222/TMT86 is only permitted for Zone 2 (EPL Gc) and Class I, Division 2 applications.
8. If the head transmitter TMT71/TMT72/L20221/L20222/TMT86, in type of protection increased safe and for use in Zone 2 (EPL Gc) and Class I, Division 2 applications, is mounted in an optional field housing the field housing must be equipped with suitable cable glands, certified according to CSA/UL 60079-0 and CSA/UL 60079-7, providing a degree of ingress protection of not less than IP54.
9. Final acceptance of this equipment when installed is subject to the jurisdiction of the local inspection authority.
10. The end user shall ensure appropriate earthing of the end enclosure and all metallic accessories if used (wall or pipe mounting accessories for the field housing and the DIN rail clip for the head transmitter upon installation.
11. These components do not have any surface that achieves a temperature greater than 135°C/100°C/85°C with a 5K safety factor when operated under full load conditions at an ambient of range of 85°C/70°C/55°C respectively.

Ex ec IIC T6…T4 Gc
Class I, Zone 2, AEx ec IIC T6…T4 Gc
Class I, Division 2, Groups A, B, C, D; T6…T4

- iTEMP Temperature Transmitter. Type TMT71, TMT72, L20221 and L20222. Rated 10…36 Vdc, 23 mA with or without optional Display Module type TID10. Provided with die cast aluminum or stainless steel enclosure. Conduit entry sizes 1/2 inch NPT or M20 x 1.5; Enclosure Type 4X; IP66/67 Suitable for Division 2 or Zone 2 when installed per drawing 10000010389. Pollution degree 2

- iTEMP Temperature Transmitter. Type TMT86. Rated 9…30 Vdc, 0.7 W with or without optional Display Module type TID10. Provided with die cast aluminum or stainless steel enclosure. Conduit entry sizes 1/2 inch NPT or M20 x 1.5; Enclosure Type 4X; IP66/67 Suitable for Division 2 or Zone 2 when installed per drawing 10000013591. Pollution degree 2

Models TMT71-CEb1deA1gh, TMT72-CEb1deA1gh, and TMT86-CEb1deeA1
Models L20221-CEb1deA1NNgh, and L20222-CEb1deA1NNgh
Where:
b = Output signal: A (for TMT71/L20221: 4-20mA; DTM, for TMT72/L20222: 4-20 mA; HART), for TMT86: PROFINET w. Ethernet APL/SPE, 10Mbit/s, 2-wire, or P (for TMT71/L20221: 4-20mA; DTM / Bluetooth, for TMT72/L20222: HART / Bluetooth).
d = Electrical connections: A (screw terminals), or B (spring terminals).
e = Field housing:
A1 (TA30A, Alu, 2x M20x1.5, w/o display window, universal housing with hinged cover)
A2 (TA30A, Alu, 2x M20x1.5, glass display window, universal housing with hinged cover)
A3 (TA30A, Alu, 2x NPT1, w/o display window, universal housing with hinged cover)
A4 (TA30A, Alu, 2x NPT1, glass display window, universal housing with hinged cover)
A4 (TA30A, Alu, 2x NPT1, glass display window, universal housing)
D1 (TA30D, Alu, 2x M20x1.5, universal housing with hinged cover high)
D2 (TA30D, Alu, 2x NPT1/2, universal housing with hinged cover high)
H1 (TA30H, Alu, 2x M20x1.5, w/o display window, explosion-proof enclosure)

H2 (TA30H, Alu, 2x M20x1.5, glass display window, explosion-proof enclosure)
H3 (TA30H, Alu, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H4 (TA30H, Alu, 2x NPT1/2, glass display window, explosion-proof enclosure)
H5 (TA30H, 316L, 2x M20x1.5, w/o display window, explosion-proof enclosure)
H6 (TA30H, 316L, 2x M20x1.5, glass display window, explosion-proof enclosure)
H7 (TA30H, 316L, 2x NPT1/2, w/o display window, explosion-proof enclosure)
H8 (TA30H, 316L, 2x NPT1/2, glass display window, explosion-proof enclosure)

g = Input: B1 (RTD/Ohm 2-wire), B2 (RTD/Ohm 3-wire), B3 (RTD/Ohm 4-wire), B4 (TC/mV).

h = Sensor type: Two alphanumeric characters representing different software versions to adapt different sensor types

T-class	iTEMP TMT71/TMT72/ L20221/ L20222 and TMT86 **Ambient temperature range**	
	Without display TID10	**With** display TID10
T4	-50 °C ≤ Ta ≤ +85 °C	-40 °C ≤ Ta ≤ +85 °C
T5	-50 °C ≤ Ta ≤ +80 °C	-40 °C ≤ Ta ≤ +80 °C
T6	-50 °C ≤ Ta ≤ +70 °C	-40 °C ≤ Ta ≤ +70 °C

Conditions of Acceptability:

1. Due to the risk of discharge, the non-metallic parts of the equipment and of all non-metallic accessories have to be protected from electrostatic charging during installation and operation (e.g. only wipe with a damp cloth and do not expose to high voltage fields).
2. For the use as an equipment in type of protection increased safety Ex ec, and for Zone 2 (EPL Gc), and Class I, Division 2 applications, the head transmitter TMT71/TMT72/L20221/L20222/TMT86 shall not be connected or disconnected unless the area is known to be non-hazardous. The same applies for the connection and disconnection of the display type TID10.
3. If the head transmitter TMT71/TMT72/L20221/L20222/TMT86 was used in a Zone 2 (EPL Gc) or Class I, Division 2 application it is not allowed to use it in Zone 1 (EPL Gb), Zone 0 (EPL Ga) or Class I, Division 1 applications in the future.
4. The use of the display type TID10 with the head transmitter TMT71/TMT72/L20221/L20222/TMT86 by connecting display to the CDI interface of the head transmitter is only permitted for Zone 2 (EPL Gc) and Class I, Division 2 applications.
5. The CDI interface is only allowed to be used for connecting the display type TID10 for head transmitter Type TMT71/TMT72/L20221/L20222/TMT86. Irrespective of inside or outside the hazardous area, no other circuits/equipment is allowed to be connected to the CDI Interface.
6. The use of the additional field housing with the head transmitter TMT71/TMT72/L20221/L20222/TMT86 is only permitted for Zone 2 (EPL Gc) and Class I, Division 2 applications.
7. If the head transmitter TMT71/TMT72/L20221/L20222/TMT86, in type of protection increased safety (Ex ec) and for use in Zone 2 (EPL Gc) and Class I, Division 2 applications, is mounted in an optional field housing the field housing must be equipped with suitable cable glands, certified according to CSA/UL 60079-0 and CSA/UL 60079-7, providing a degree of ingress protection of not less than IP54.
8. Final acceptance of this equipment when installed is subject to the jurisdiction of the local inspection authority.
9. The end user shall ensure appropriate earthing of the field housing.

APPLICABLE REQUIREMENTS

CAN/CSA C22.2 No. 61010-1-12 - Safety requirements for electrical equipment for measurement, control, and laboratory use — Part 1: General requirements

CSA C22.2 No. 25:17 - Fourth Edition - Enclosures for use in Class II, Division 1, Groups E, F, and G hazardous locations

CSA C22.2 No. 30-20 - Fourth edition - Explosion-proof equipment

CSA C22.2 No. 94.2:20 - Third Edition - Enclosures for electrical equipment, environmental considerations

UL 61010-1, 3rd Edition (May 11, 2012) - UL Standard for Safety Electrical Equipment For Measurement, Control, and Laboratory Use; Part 1: General Requirements

FM 3600:2018 - Electrical Equipment for Use in Hazardous (Classified) Locations - General Requirements

FM 3615 : 2018 - Explosionproof Electrical Equipment – General Requirements

FM 3616:2011 - Dust-Ignitionproof Electrical Equipment General Requirements

UL 50E:2020 - Third Edition - UL Standard for Safety for Enclosures for Electrical Equipment, Environmental Considerations

CSA C22.2 No. 213-17 -Third Edition - Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified Locations)

CAN/CSA C22.2 No. 60079-0:19 - Explosive atmospheres - Part 0: Equipment - General requirements

CAN/CSA-C22.2 No. 60079-7:16 - Second Edition - Explosive atmospheres - Part 7: Equipment protection by increased safety "e"

CAN/CSA-C22.2 No 60079-11:14 - Explosive Atmospheres - Part 11: Equipment protection by intrinsic safety 'i'

CAN/CSA C22.2 No. 60079-47:22 - Explosive atmospheres - Part 47: Non-electrical equipment for explosive atmospheres - Non-electrical Type of Protection Constructional Safety 'c', Control of ignition sources 'b', Liquid immersion 'k'

ANSI/UL 121201:2017 - Ninth Edition - UL Standard for Safety Nonincendive Electrical Equipment for Use in Class I and II, Division 2 and Class III, Divisions 1 and 2 Hazardous (Classified) Locations

ANSI/UL 60079-0-2019 Seventh Edition - UL Standard for Safety Explosive atmospheres – Part 0: Equipment – General requirements

ANSI/UL 60079-7-2017 Fifth Edition - Explosive Atmospheres - Part 7: Equipment Protection by Increased Safety 'e'

ANSI/UL 60079-11:2013 - Sixth Edition - Standard for Safety Explosive Atmospheres - Part 11: Equipment Protection By Intrinsic Safety 'I'

UL 60079-47:2022 - First Edition - Safety Explosive Atmospheres – Part 47: Equipment Protection by 2-Wire Intrinsically Safe Ethernet Concept (2-WISE)

Certificate: 70187832 **Master Contract**: 200600

Project: 80257634 **Date Issued**: 2025-08-11

Notes:

Products certified under Class(es) C225802, C225804, C225882, C225884 have been certified under CSA's ISO/IEC 17065 accreditation with the Standards Council of Canada (SCC). www.scc.ca

Supplement to Certificate of Compliance

Certificate: 70187832 **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
80257634	2025-08-11	Update to Report 70187832 to address (FC# 200605) FIR dated January 14, 2025, to accept the revised drawings
80167999	2023-06-22	Update cCSAus report 70187832 for intrinsically safe, explosionproof, non- incendive, increased safety "ec" and dust igntionproof Temperature Transmitter Type TMT7* Series with addition of type designation L20221 and L20222
80155247	2023-04-21	Evaluation to update cCSAus report # 70187832 (last project 80101936) for intrinsically safe, explosionproof, non-incendive, increased safety "ec" and dust igntionproof Temperature Transmitter Type TMT7* Series for addition of temperature transmitter TMT86 partially based on IECEx ExTR EPS 22.0027X, and update to CSA C22.2 No. 25-17 per certification notice Hazardous Locations Products No. 35.
80101936	2022-01-24	Update of cCSAus report 70187832 for intrinsically safe, explosionproof, non-incendive, increased safety "ec" and dust igntionproof Temperature Transmitter Type TMT7* Series for adjustment of marking requirements to match CSA Report 1733312_80062682, and list nameplate drawings
80058240	2021-01-07	Update to cCSAus certificate # 70187832 for intrinsically safe Temperature transmitter models TMT7x for addition of an alternate terminal.
80027371	2020-06-29	Update report 70187832 to add TMT71/72 DIN rail version to the certificate, update to the list of applicable standards, and list TMT71/72 (head transmitter & DIN rail version) as "components" for increased safety.
80003763	2019-11-19	Update of CSA report 70187832 to include the transmitter TMT7x within classes 2258 02 (new) and 2258 82 (new class). The scope of this quote is to update Report 70187832 and classify the TMT7x transmitter for Class I, Div. 1 (XP), Class II, Div. 1 based on its use within an already certified enclosure TA30H.
70187832	2019-06-28	Original model certification of temperature transmitter iTEMP – type TMT71 and TMT72