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Type Examination Certificate

for Electrical Equipment used in Potentially Explosive Atmosphere

Issued by Eurofins E&E CML Limited, Newport Business Park, New Port Road, Ellesmere Port CH65 4LZ, UK		
Applicant	MTS Systems Corp Sensors Division 3001 Sheldon Dr, Cary NC 27513, United States of America	
Manufacturer name	MTS Systems Corp Sensors Division 3001 Sheldon Dr, Cary NC 27513, United States of America	
Product name	Level sensor	
Type/model code	Level Plus LP See attachment 1	
Type of protection	Flameproof	
Group, Temperature Class and EPL	IIB+H ₂ T6-T3 Ga/Gb	
The equipment shall be marked with the following	Ex db IIB+H ₂ T6-T3 Ga/Gb	
Ratings	28VDC, 120 mA (max)	
Special condition for safe use	See attachment 2	
Certificate number	CML 18JPN1126X	
Term of validity	From 22-06-2018 to 21-06-2021	
	From 22-06-2021 to 21-06-2024	

This is to certify that the equipment specified above complies with the requirements stipulated in Ordinance on Examination of Machines and Other Equipment of the Ministry of Health, Labour and Welfare, Japan.

Issue date: 22-06-2021

Signature of chief examiner:



Attachment 1: Model number breakdown***LPTbcdefghijklmnop, Tank SLAYER Level Plus Transmitters***

b = Output: 1, 2, 5, 7, M, D
c = Housing Type: D, E, L
d = Electronics Mounting: 1
e = Sensor Pipe: M, N, P, S
f = Materials of Construction (Wetted Parts): 1
g = Process Connection Type: 1, 2, 6, 7, 8, A, B, C, D, E, X
h = Process Connection Size: B, C, D, E, F, G, H, J, X
i = Number of DT's (Digital Thermometer): 0, 1, 5, K, M, P, X
j = DT Placement: F, C, B
k = Notified Body: T
l = Protection Method: F
m = Gas Group: 4
n = Unit of Measure: F, M, U
o = Length: (XXX.XX in), (XXX.XX ft), (XXXXX mm), Flexible sensor pipe (62 to 999 in), (5 to 98.5 ft), (1575 to 30000 mm).
p = Special: S (Standard Product), E (Engineering Special (not affecting agency controlled parts or features), R (Reverse Measurement), F (Flexible Sensing Element with Rigid Pipe)

LPRbcdefghijklmnop, RefineME Level Plus Transmitters

b = Output: 1, 2, 5, 7, M, D
c = Housing Type: D, E, L
d = Electronics Mounting: 1
e = Sensor Pipe: B, R, Y
f = Materials of Construction (Wetted Parts): 1, 3, A
g = Process Connection Type: 1, 2, 6, 7, 8, A, B, C, D, X, Z
h = Process Connection Size: A, C, D, E, F, G, H, J, X
i = Number of DT's (Digital Thermometer): 0, 1, 5, K, M, P, X
j = DT Placement: F, C, B
k = Notified Body: T
l = Protection Method: F
m = Gas Group: 4
n = Unit of Measure: F, M, U
o = Length: (XXX.XX in), (XXX.XX ft), (XXXXX mm), Rigid sensor pipe (12 to 300 in), (1 to 25 ft), (305 to 7620 mm)
p = Special: S (Standard Product), E (Engineering Special (not affecting agency controlled parts or features), R (Reverse Measurement), F (Flexible Sensing Element with Rigid Pipe)

LPSbcdefghijklmnop, SoCLEAN Level Plus Transmitters

b = Output: 1, 2, 5, 7, M, D
c = Housing Type: D, E, L
d = Electronics Mounting: 1

e = Sensor Pipe: C, D, E, F
f = Materials of Construction (Wetted Parts): 1, 2, 3
g = Process Connection Type: 1, 2, 4, 5, 6, 7, 8, A, B, C, D, X, Z
h = Process Connection Size: A, C, D, E, F, G, J, X
i = Number of DT's (Digital Thermometer): 0, 1, 5, K, M, P, X
j = DT Placement: F, C, B
k = Notified Body: T
l = Protection Method: F
m = Gas Group: 4
n = Unit of Measure: F, M, U
o = Length: (XXX.XX in), (XXX.XX ft), (XXXXXX mm), Rigid sensor pipe (12 to 300 in), (1 to 25 ft), (305 to 7620 mm)
p = Special: S (Standard Product), E (Engineering Special (not affecting agency controlled parts or features), R (Reverse Measurement), F (Flexible Sensing Element with Rigid Pipe)

LPCbcdefghijklmnop, CHAMBERED Level Plus Transmitters

b = Output: 3, 4, 6, D, M
c = Housing Type: D, E, L
d = Electronics Mounting: 3, 4, 5, 6, 7, 8
e = Sensor Pipe: B, R, Y
f = Materials of Construction (Wetted Parts): 1, 3
g = Process Connection Type: X (None)
h = Process Connection Size: X (None)
i = Number of DT's (Digital Thermometer): 0, 1, 5, K, M, P, X
j = DT Placement: F, C, B
k = Notified Body: T
l = Protection Method: F
m = Gas Group: 4
n = Unit of Measure: F, M, U
o = Length: (XXX.XX in), (XXX.XX ft), (XXXXXX mm), Rigid sensor pipe (12 to 300 in), (1 to 25 ft), (305 to 7620 mm)
p = Special: S (Standard Product), E (Engineering Special (not affecting agency controlled parts or features), R (Reverse Measurement), F (Flexible Sensing Element with Rigid Pipe)

Attachment 2: Special conditions for safe use

- i. Warning: The equipment contains non-metallic enclosure and process parts. To prevent the risk of electrostatic sparking, the non-metallic surface should only be cleaned with a damp cloth. Painted surface of the equipment may store electrostatic charge and become a source of ignition in applications with a low relative humidity <~30% relative humidity where the painted surface is relatively free of surface contamination such as dirt, dust or oil. Cleaning of the painted surface should only be done with a damp cloth.
- ii. Cables shall be rated > 5°C above maximum ambient temperature.
- iii. To maintain the ingress protection rating of IP65, Teflon tape (3 wraps) or pipe dope shall be used. *Refer to Installation Instructions.*
- iv. Equipment can be installed in a boundary wall configuration where the process connection is installed as Category 1G equipment while the transmitter housing is installed as Category 2G equipment. Refer to installation instructions.
- v. Flexible gauges have a minimum bend diameter of 381mm (15 inches) (for LPT model only)
- vi. Flamepaths not for repair.
- vii. The applicable temperature class, process temperature range and ambient temperature range of the equipment is as follows;
 - T3 with Process Temperature Range of -40°C to 150°C
 - T4 with Process Temperature Range of -40°C to 135°C
 - T5 with Process Temperature Range of -40°C to 100°C
 - T6 with Process Temperature Range of -40°C to 85°C
 - 40°C < Ta < 71°C
- viii. When mounting on a MLG (magnetic level gauge) make sure the electronic head and pressure barrier have a minimum spacing of 5 inches. See Installation Manual for detail.