



Member of the FM Global Group

FM Approvals  
1151 Boston Providence Turnpike  
P.O. Box 9102 Norwood, MA 02062 USA  
T: 781 762 4300 F: 781-762-9375 www.fmapprovals.com

# CERTIFICATE OF COMPLIANCE

## HAZARDOUS (CLASSIFIED) LOCATION ELECTRICAL EQUIPMENT

This certificate is issued for the following equipment:

***NMS 5abCDefghijklm. PROSERVO Tank Gauge.***

XP-AIS/II/1/CD/T4 Ta= +60 °C – Ex421-439; Entity  
DIP/III,III/1/EFG/T4 Ta= +60° C – Ex421-439; Entity  
XP-AIS/II/1/IIB/T4 Ta= +60 °C – Ex421-439; Entity  
XP-ANI/II/2/CD/T4 Ta= +60 °C – Ex421-439; Entity; Type 4X

- a = Pressure rating 1, 2, 3, 4, 5 or 6.
- b = Protection class 5 or N.
- c = Measuring Function A, B, C, D, E, F, G, H or J.
- d = Primary (digital) output A, B, C, D, F, G, H, J, L, M, N, P or Q.
- e = Secondary output 0, 1, 2, 3, 4, 5 or A.
- f = Signal input from field units 0, 1, 2, 3, 4, 5 or 6.
- g = Measuring range, wire material A, B, C, G, H, J, K, L or M.
- h = Cable entry E, F, G, H, J, K, L or M.
- i = Process connection A, C, E, G, J, L, N, Q or S.
- j = Power supply 3 or 4.
- k = Displacer shape/diameter/material B, D, K, N, R, S, T, U, V or W.
- l = O-ring, chamber finishing 0, 1, 2, 3, 4, 5, 7, 8 or A.
- m = Options A, C, D, E, G, H, J, L, M, N, P, Q, R, S, T or U.

Entity/Nonincendive Field Wiring Parameters:

Protection Class P:

U<sub>o</sub> = 11.3 V, I<sub>o</sub> = 81.6 mA, P<sub>o</sub> = 406 mW, C<sub>o</sub> = 1.3 µF, L<sub>o</sub> = 4.0 mH

Protection Class N:

U<sub>o</sub> = 28.7 V, I<sub>o</sub> = 113 mA, P<sub>o</sub> = 810 mW, C<sub>o</sub> = 165 nF, L<sub>o</sub> = 2.5 mH

**NRF 560-abCDe. Promonitor Tank Side Monitor.**

XP/II/1/ABCD/T4 Ta= +60 °C

DIP/II,III/1/EFG/T4 Ta= +60 °C; Type 4X

a = 4

b = Cable entry: A, B, C or D.

c = Power supply: 3 or 4.

d = Mounting bracket: 0 or 1.

e = Painting: 0.

**NRF 561-abCDefg. Promonitor Tank Side Monitor.**

XP/II/1/ABCD/T4 Ta= +60 °C

DIP/II,III/1/EFG/T4 Ta= +60 °C; Type 4X

a = 4.

b = Digital output: A, B, C, D, E, F or J.

c = Sensor input: 0 or 1.

d = Cable entry: A, B, C or D.

e = Power supply: 3 or 4.

f = Mounting bracket: 0 or 1.

g = Painting: 0.

## Equipment Ratings:

The NMS53 PROSERVO Tank Gauge is Explosionproof with Intrinsically Safe Connections to Class I, Division 1, Groups C & D and Class I, Zone 1, Group IIB; Explosionproof with Nonincendive Field Wiring to Class I, Division 2, Groups C & D; Dust Ignition-Proof for use in Class II & III, Division 1, Groups E, F & G Indoor and Outdoor (Type 4X) Hazardous (Classified) Locations.

The NRF560 version and NRF561 version PROMONITOR Tank Side Monitor is Explosionproof for use in Class I, Division 1, Groups A, B, C & D; Dust Ignition-Proof for use in Class II & III, Division 1, Groups E, F & G Indoor and Outdoor (Type 4X) Hazardous (Classified) Locations.

## FM Approved for:

Endress + Hauser Yamanashi Co., Ltd.  
Yamanashi Operation Center  
862-1 Mitsukunugi Sakaigawa-cho  
Fuefuki-shi, Yamanashi Prefecture  
406-0846 Japan



This certifies that the equipment described has been found to comply with the following Approval Standards and other documents:

Class 3600	1998
Class 3610	2010
Class 3611	2004
Class 3615	1989
Class 3810	1989
ANSI/NEMA 250	1991


Original Project ID: 3002536

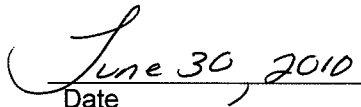
Approval Granted: July 1, 1999

Subsequent Revision Reports / Date Approval Amended

Report Number	Date	Report Number	Date
3009718	March 29, 2001		
3009096	November 26, 2001		
3020373	May 19, 2004		
041110	December 2, 2004		
071018	October 30, 2007		
090209	December 2, 2004		
100408	June 30, 2010		

FM Approvals LLC

  
Richard P. Ferron, P.E.  
Group Manager, Assistance Vice President

  
Date