

RE: ANSI/NACE MR0175/ISO 15156:2015 Test Results**Address**

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The following is a summary of laboratory tests United Electric Controls (UE) performed on the ONE Series electronic switch and transmitter product line, particularly the P17 sensor (0-1000 psi) as a representative sensor covering all pressure ranges offered. The test was conducted in a manner equal to those in *Table A.2 Environmental and material limits for austenitic stainless steels used for any equipment or components of ANSI/NACE MR0175/ISO 15156:2015 Part 3: Annex A, page 14.*

Media conditions for testing:

- Pressure – 1 atm hydrogen sulfide (H₂S)
- pH – 3.5
- Chloride content – varied from 50 to 1000 mg/L
- Temperature – varied from 75 to 200°F
- Duration of test – 30 days

The tested P17 sensor is a supplier-sourced sub-assembly constructed of 316L stainless steel wetted materials that do not meet the temper and hardness guidelines for wetted metallic materials from ANSI/NACE MR0175/ISO 15156:2015 for H₂S containing environments in oil & gas production, due to the impact upon product performance. Visual inspection of the wetted material post testing indicates that the effect on the material, in terms of defects or cracking, was minimal, suggesting suitability for use under the specific test conditions.

The ANSI/NACE MR0175/ISO 15156-2015 standard allows for qualification of materials via laboratory testing per the customer/end user's application environmental conditions. The test conditions described above are within Level 1 and 2 of *Annex E (Nominated Sets of Test Conditions)* outlined in the standard.

Please note that per the ANSI/NACE MR0175/ISO 15156-2015 standard, it is the end user's responsibility to ensure that wetted metallic materials are suitable for the intended application. The test conditions and results provided herewith are intended to be informative to assist end-users in making decisions regarding material suitability. If you require additional information or further evaluation under specific conditions, please contact UE Sales Application Engineering at insidesales@ueonline.com.