

People for Process Automation

SIL-16001

SIL Declaration of Conformity

Functional Safety according to IEC 61508

Endress+Hauser Yamanashi Co., Ltd.

862-1 Mitsukunugi, Sakaigawa-cho, Fuefuki-shi, Yamanashi Prefecture, 406-0846 Japan

Declares as manufacturer, that the level gauge

Proservo NMS

is suitable for the use in safety-instrumented system according to IEC 61508 / IEC 61511, if the functional safety manual SD00337G/08 and following characteristics are observed:

| Product | Analogue output 4 to 20 mA | Alarm relay contact output |
|-------------------------------|------------------------------------|------------------------------------|
| Safety functions | Level Range, | Level MAX, Level MIN, |
| | Error related to level measurement | Error related to level measurement |
| SIL ³⁾ | 2 | |
| HFT | 0 | |
| Device type | Туре В | |
| SFF | 94% | 95% |
| PFD_{avg} ($T_i = 1$ year) | 3.63 x 10 ⁻⁴ | 2.71 x 10 ⁻⁴ |
| Proof test interval | Recommended: 2 year | |
| λ s ¹⁾ | 679.19 FIT | 635.33 FIT |
| $\lambda_{D}^{(1)}$ | 679.19 FIT | 635.33 FIT |
| $\lambda_{DU}^{1)}$ | 82.97 FIT | 61.77 FIT |
| MTBF ²⁾ | 84 years | 89 years |

²⁾ according to Siemens SN29500, including faults outside the safety function

³⁾ consideration according to IEC 61511-1 clause 11.4.4

The device, including software and the modification process, was passed on the basis of proven-in-use.

Yamanashi, 1 June 2016 Endress+Hauser Yamanashi Co.,Ltd.

mou

(General Manager)