

## SIL-Declaration

Manufacturer      LABOM Mess- und Regeltechnik GmbH  
 Im Gewerbepark 13, 27798 Hude, Germany

### Functional Safety according to IEC/EN 61508

For type series      SIL 2 compliant gas expansion thermometer with electrical contact device,  
 Type series FU...

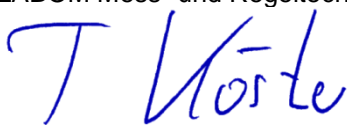
In accordance with the specifications and safety instructions the devices are suitable for use in safety related systems as per IEC/EN 61508.

Individual devices are part of an overall safety related system.

|                                  |  |
|----------------------------------|--|
| operation mode                   | low demand mode  |
| safety function                  | switching initiators   |
| architecture                     | 1oo1   |
| subsystem type                   | A  |
| hardware fault tolerance         | HFT = 0  |
| proof test interval              | $T_1=1$ Jahr   |
| dangerous failure rate           | $\lambda_{du}=4,01 \cdot 10^{-8}$ 1/h<br>$\lambda_{dd}=1,22 \cdot 10^{-7}$ 1/h |
| safe failure rate                | $\lambda_s=1,63 \cdot 10^{-7}$ 1/h   |
| safe failure fraction            | SFF=87,70%   |
| probability of failure on demand | PFD= $1,77 \cdot 10^{-4}$  |
| safety integrity level           | SIL 2  |

The regular proof test must ensure that detectable failures are discovered.

Hude, 23.12.2019  
 LABOM Mess- und Regeltechnik GmbH



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