



"Made to Measure" Process Instrumentation for Pressure and Temperature Measurement in the Food, Pharmaceutical, Bio-Technology, Chemical, Petro-Chemical, Power, Environmental and Maritime Industries.

SIL-Declaration

Functional Safety according IEC/EN 61508

HE_080

Manufacturer

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

for type series

**Diaphragm pressure gauge with switch function, type series BE2...
SIL 2 compliant**

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

As described in the datasheet, ambient and media temperature ranges are limited to -20.. +60 °C.
For devices with S3 safety case and liquid filling the temperature ranges are limited to -20.. +40 °C.

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 year
dangerous failure rate	$\lambda_{du}=2,54 \cdot 10^{-8}$ 1/h $\lambda_{dd}=6,40 \cdot 10^{-8}$ 1/h
safe failure rate	$\lambda_s=9,00 \cdot 10^{-8}$ 1/h
safe failure fraction	SFF=85,82%
probability of failure on demand	PF _D =1,12·10 ⁻⁴
safety integrity level	SIL 2

The regular proof test must check the accuracy at 0%, 50% and 100% of span to ensure that detectable failures are discovered.

Hude, 19.07.2017
LABOM Mess- und Regeltechnik GmbH

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Dr. T. Köster
R & D Manager