SIL DECLARATION OF CONFORMITY
MANUFATURER DECLARATION

As manufacturer

PR electronics A/S
Lerbakken 10
DK-8410 Rønde

hereby declares that the following product:

Type: 5335/5337, 6335/6337 and 7501 (Resistance input)

is suitable for the use in safety instrumented systems up to a Safety Integrity Level of **SIL 1** if the appropriate instructions are observed.

The reliability data summarized in the following table is the result of a **hardware assessment** according to IEC61508 carried out on the temperature transmitters 5335/5337, 6335/6337 and 7501. The hardware assessment consists of an FMEDA done by Exida.
The 5335/5337, 6335/6337 and 7501 temperature transmitters are considered to be Type B components with a hardware fault tolerance (HFT) of 0.

5337 – Resistance input types e.g. RTD, Potentiometer:

Failure category	Siemens SN 29500 [FIT]
Fail Safe Detected (λ_{SD})	**0**
Fail Safe Undetected (λ_{SU})	**0**
Fail Dangerous Detected (λ_{DD})	**203**
Fail Dangerous Detected (λ_{dd})	144
Fail Annunciation Detected (λ_{AD})	0
Fail High (λ_{H})	17
Fail Low (λ_{L})	42
Fail Dangerous Undetected (λ_{DU})	**71**
Fail Annunciation Undetected (λ_{AU})	1
No effect	122
No part	65
Total failure rate of the safety function (λ_{Total})	**274**
Safe failure fraction (SFF)	**74%**
DC_D	**74%**
SIL AC [4]	**SIL 1**

A sensor subsystem consisting of a temperature transmitter together with a suitable sensor such as RTD or potentiometer, *may* be suitable for use in safety instrumented systems up to SIL 2, however the failure rates of the sensor must be taken into account when making the necessary calculations for the resulting subsystem.

Roende, 21 Januar 2022

S. Lindemann

Stig Lindemann, CTO
Manufacturer's signature