

# SIL DECLARATION OF CONFORMITY

## MANUFACTURER DECLARATION

As manufacturer

**PR electronics A/S**  
**Lerbakken 10**  
**DK-8410 Rønde**

hereby declares that the following products:

Type: 4179 / 4184  
 From serial no.: 181752500

are suitable for the use in safety instrumented systems up to a Safety Integrity Level of SIL 2<sup>1</sup> if the appropriate instructions are observed.

The reliability data summarized in the following table are the result of a hardware assessment according to IEC 61508 carried out on the 4179 / 4184. The hardware assessment consists of an FMEDA done by Exida.

The 4179 and 4184 are considered to be a Type B component with a hardware fault tolerance (HFT) of 0.

Product	$\lambda_{Safe}$	$\lambda_{DD}$	$\lambda_{DU}$	SFF
4179	0	443	39	91%
4184	0	468	46	91%

Example calculations<sup>2,3</sup>:

Product	PFH	Proof test interval	
		T[Proof] = 1 year	T[Proof] = 5 years
4179	PFH = 3.91 E-08 1/h	PFD <sub>AVG</sub> = 1.97 E-04	PFD <sub>AVG</sub> = 8.73 E-04
4184	PFH = 4.6 E-08 1/h	PFD <sub>AVG</sub> = 2.31 E-04	PFD <sub>AVG</sub> = 1.03 E-03

<sup>1</sup> 4179: For T[Proof] = 1 year

4184: For T[Proof] = 5 years

<sup>2</sup> Refer to FMEDA report section 5.1 for assumptions used for the calculations.

<sup>3</sup> Using a proof test coverage of 99%

Roende, 8 March 2019



Stig Lindemann, CTO  
 Manufacturer's signature