

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 2¹ 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	λ_{Safe}	λ_{DD}	λ_{DU}	SFF
4179	0	443	39	91%
4184	0	468	46	91%

Example calculations^{2,3}:

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

¹ 4179: For T[Proof] = 1 year

4184: For T[Proof] = 5 years

² Refer to FMEDA report section 5.1 for assumptions used for the calculations.

³ Using a proof test coverage of 99%

Roende, 8 March 2019



Stig Lindemann, CTO
Manufacturer's signature