

Reference	BS EN 954-1		BS EN ISO 13849-1					
	Category still used in BS EN ISO 13849-1		MTTF _d [Years] (single channel) (70° C)		max PL (performance Level)		DC (for the device internal)	
	Device + outputs in stop cat.0 <small>(Input-circuits/Device)</small>	Device + outputs in stop cat.1	Channel with output in stop cat.0	Channel with output in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1
Safety Modules:								
XPSMP11123P	4	-	83.9	-	$\underline{\Delta}e^{**}$	-	99.22%	-
XPSMP11123	4	-	83.9	-	$\underline{\Delta}e^{**}$	-	99.22%	-
XPSAC3421P	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAC3721P	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAC5121P	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAC3721	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAC1321	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAC5121	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAC3421	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAC1321P	3	-	315.5	-	$\underline{\Delta}d$	-	99.99%	-
XPSAF5130	4	-	349.1	-	$\underline{\Delta}e$	-	99.99%	-
XPSAF5130P	4	-	349.1	-	$\underline{\Delta}e$	-	99.99%	-
XPSAFL5130P	3 / 4 ***	-	219.4	-	$\underline{\Delta}d/e^{***}$	-	99.99%	-
XPSAFL5130	3 / 4 ***	-	219.4	-	$\underline{\Delta}d/e^{***}$	-	99.99%	-
XPSAK371144P	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAK351144P	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAK371144	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAK351144	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAK361144	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAK311144	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAK311144P	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAK361144P	4	-	191.5	-	$\underline{\Delta}e$	-	99.99%	-
XPSAR351144	4	-	1085.0	-	$\underline{\Delta}e$	-	99.99%	-
XPSAR371144	4	-	1085.0	-	$\underline{\Delta}e$	-	99.99%	-
XPSAR311144	4	-	1085.0	-	$\underline{\Delta}e$	-	99.99%	-
XPSAR351144P	4	-	1085.0	-	$\underline{\Delta}e$	-	99.99%	-
XPSAR371144P	4	-	1085.0	-	$\underline{\Delta}e$	-	99.99%	-
XPSAR311144P	4	-	1085.0	-	$\underline{\Delta}e$	-	99.99%	-
XPSAT5110	4	3	171.8	63.2	$\underline{\Delta}e$	$\underline{\Delta}d$	99.99%	96.41%
XPSAT3410	4	3	171.8	63.2	$\underline{\Delta}e$	$\underline{\Delta}d$	99.99%	96.41%
XPSAT3710	4	3	171.8	63.2	$\underline{\Delta}e$	$\underline{\Delta}d$	99.99%	96.41%
XPSAT5110T100	4	3	171.8	63.2	$\underline{\Delta}e$	$\underline{\Delta}d$	99.99%	96.41%

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	Device + outputs in stop cat.0 (Input-circuits/Device)	Device + outputs in stop cat.1	Channel with output in stop cat.0	Channel with output in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1
XPSATE5110	4	3	164.4	63.8	△e	△d	99.99%	98.16%
XPSATE5110P	4	3	164.4	63.8	△e	△d	99.99%	98.16%
XPSATE3410	4	3	164.4	63.8	△e	△d	99.99%	98.16%
XPSATE3410P	4	3	164.4	63.8	△e	△d	99.99%	98.16%
XPSATE3710	4	3	164.4	63.8	△e	△d	99.99%	98.16%
XPSATE3710P	4	3	164.4	63.8	△e	△d	99.99%	98.16%
XPSAV11113P	4		83.9		△e **		99.22%	
XPSAV11113T050	4		83.9		△e **		99.22%	
XPSAV11113	4		83.9		△e **		99.22%	
XPSAX5120	3	-	570.5	-	△d	-	99.99%	-
XPSBC1110	4	-	156.5	-	△e	-	99.99%	-
XPSBC3110	4	-	156.5	-	△e	-	99.99%	-
XPSBC3410	4	-	156.5	-	△e	-	99.99%	-
XPSBC3710	4	-	156.5	-	△e	-	99.99%	-
XPSBF1132	4	-	93.4	-	△e **	-	99.74%	-
XPSBF1132P	4	-	93.4	-	△e **	-	99.74%	-
XPSFB3411	4	-	60.3	-	△e	-	99.99%	-
XPSFB3711	4	-	60.3	-	△e	-	99.99%	-
XPSFB5111	4	-	60.3	-	△e	-	99.99%	-
XPSFB5311	4	-	60.3	-	△e	-	99.99%	-
XPSDA5142	4	-	93.5	-	△e	-	99.99%	-
XPSDA3442	4	-	93.5	-	△e	-	99.99%	-
XPSDA3742	4	-	93.5	-	△e	-	99.99%	-
XPSDMB1132P	4	-	94.7	-	△e **	-	99.74%	-
XPSDMB1132	4	-	94.7	-	△e **	-	99.74%	-
XPSDME1132TS220	4	-	93.8	-	△e **	-	99.74%	-
XPSDME1132	4	-	93.8	-	△e **	-	99.74%	-
XPSDME1132P	4	-	93.8	-	△e **	-	99.74%	-
XPSCM1144P	2	-	17.4	-	△c	-	99.89%	-
XPSCM1144	2	-	17.4	-	△c	-	99.89%	-

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	Device + outputs in stop cat.0 (Input-circuits/Device)	Device + outputs in stop cat.1	Channel with output in stop cat.0	Channel with output in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1
XPSECM3431	4 *	-	645.2	-	<u>Δ</u> e *	-	0.00%	-
XPSECM5131	4 *	-	645.2	-	<u>Δ</u> e *	-	0.00%	-
XPSECM3731	4 *	-	645.2	-	<u>Δ</u> e *	-	0.00%	-
		-		-		-		-
XPSECP5131	4 *	-	645.2	-	<u>Δ</u> e *	-	0.00%	-
XPSECP3431	4 *	-	645.2	-	<u>Δ</u> e *	-	0.00%	-
XPSECP3731	4 *	-	645.2	-	<u>Δ</u> e *	-	0.00%	-
XPSOT3444	4 *	-	115.7	-	<u>Δ</u> e *	-	99.99%	-
XPSOT3744	4 *	-	115.7	-	<u>Δ</u> e *	-	99.99%	-
XPSPVT1180	4 *	-	39.0	-	<u>Δ</u> e *	-	99.14%	-
XPSPVK3484	4 *	-	431.0	-	<u>Δ</u> e *	-	99.99%	-
XPSPVK3784	4 *	-	431.0	-	<u>Δ</u> e *	-	99.99%	-
XPSPVK1184	4 *	-	431.0	-	<u>Δ</u> e *	-	99.99%	-
XPSVN1142	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN1142HS	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN1142LFP	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN3442	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN3442HS	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN3442LFP	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN3742	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN3742HS	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVN3742LFP	3	-	149.8	-	<u>Δ</u> d	-	98.84%	-
XPSVNE1142P	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-
XPSVNE1142HSP	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-
XPSVNE1142LFP	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-
XPSVNE3442P	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-
XPSVNE3442HSP	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-
XPSVNE3442LFP	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-
XPSVNE3742P	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-
XPSVNE3742HSP	3	-	154.5	-	<u>Δ</u> d	-	99.14%	-

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	Device + outputs in stop cat.0 (Input-circuits/Device)	Device + outputs in stop cat.1	Channel with output in stop cat.0	Channel with output in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1
XPSTSA3442P	3	-	126	-	d	-	60-90%	-
XPSTSA3742P	3	-	126	-	d	-	60-90%	-
XPSTSA5142P	3	-	126	-	d	-	60-90%	-
XPSTSW3742P	3	-	126	-	d	-	60-90%	-
XPSTSW3442P	3	-	126	-	d	-	60-90%	-
XPSTSW5142P	3	-	126	-	d	-	60-90%	-
XPSVC1132	4	-	93.0	-	$\underline{\Delta}e^{**}$	-	99.75%	-
XPSVC1132P	4	-	93.0	-	$\underline{\Delta}e^{**}$	-	99.75%	-
Safety Controller:								
XPSMC16X (using the transistor outputs)	4		76.6		$\underline{\Delta}e^{**}$		99.62%	
XPSMC16X (using the relay outputs)	4		78.5		$\underline{\Delta}e^{**}$		99.61%	
XPSMC32X (using the transistor outputs)	4		76.6		$\underline{\Delta}e^{**}$		99.62%	
XPSMC32X (using the relay outputs)	4		78.5		$\underline{\Delta}e^{**}$		99.61%	
XPSMC16Z. (using the transistor outputs)	4		76.6		$\underline{\Delta}e^{**}$		99.56%	
XPSMC16Z. (using the relay outputs)	4		78.1		$\underline{\Delta}e^{**}$		99.55%	
XPSMC32Z. (using the transistor outputs)	4		76.6		$\underline{\Delta}e^{**}$		99.56%	
XPSMC32Z. (using the relay outputs)	4		78.1		$\underline{\Delta}e^{**}$		99.55%	
ASi Safety:								
ASISAFEMON1	4		451		$\underline{\Delta}e^{**}$			
ASISAFEMON1B	4		451		$\underline{\Delta}e^{**}$			
ASISAFEMON2	4		451		$\underline{\Delta}e^{**}$			
ASISAFEMON2B	4		451		$\underline{\Delta}e^{**}$			
ASISSLB5	4		incl. in monitor		$\underline{\Delta}e^{**}$		incl. in monitor	
ASISSLB4	4		incl. in monitor		$\underline{\Delta}e^{**}$		incl. in monitor	

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	Device + outputs in stop cat.0 (Input-circuits/Device)	Device + outputs in stop cat.1	Channel with output in stop cat.0	Channel with output in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1
ASISSLC2	4		incl. in monitor		△e **		incl. in monitor	
ASISSLC1	4		incl. in monitor		△e **		incl. in monitor	
ASISSLLS	4		incl. in monitor		△e **		incl. in monitor	
ASISEA1C	4		incl. in monitor		△e **		incl. in monitor	
ASISEK1C	4		incl. in monitor		△e **		incl. in monitor	
ASISSLE4	4		incl. in monitor		△e **		incl. in monitor	
ASISSLE5	4		incl. in monitor		△e **		incl. in monitor	
The calculations for safety interfaces are included in the monitor and must not be considered separately.								
Safety PLC								
XPSMF3022	4		102.4		△e **		99.70%	
XPSMF31222	4		102.4		△e **		99.70%	
XPSMF3502	4		84.5		△e **		99.69%	
XPSMF4000	4		109.5		△e **		99.56%	
XPSMF4002	4		109.5		△e **		99.56%	
XPSMF4020	4		109.5		△e **		99.56%	
XPSMF4022	4		109.5		△e **		99.56%	
XPSMF4040	4		109.5		△e **		99.56%	
XPSMF4042	4		109.5		△e **		99.56%	
XPSMFCPU22	4	-	122.8	-	△e **	-	99.54%	-
XPSMFDI3201	4	-	928.3	-	△e **	-	99.49%	-
XPSMFDI2401	4	-	896.8	-	△e **	-	99.33%	-
XPSMFCIO2401	4	-	239.2	-	△e **	-	9.28%	-
XPSMFDIO241601	4		352.6		△e **		99.75%	
XPSMFD0801	4		145.2		△e **		99.31%	
XPSMFAI801	4	-	252.5	-	△e **	-	99.12%	-
XPSMFAO801	4	-	250.2	-	△e **	-	99.75%	-
XPSMFPS01	4	-	980.9	-	△e **	-	99.90%	-
XPSMFGEH01	4	-	1409.3	-	△e **	-	99.90%	-
XPSMF1DI1601	4	-	198.5	-	△e **	-	99.53%	-
XPSMF2DO401	4		155.1		△e **		99.50%	
XPSMF2DO801	4		159.4		△e **		99.52%	
XPSMF2DO1601	4		177.8		△e **		99.48%	
XPSMF2DO1602	4		149.3		△e **		99.53%	

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	Device + outputs in stop cat.0 <small>(Input-circuits/Device)</small>	Device + outputs in stop cat.1	Channel with output in stop cat.0	Channel with output in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1
XPSMF3AIO8401	4	-	117.8	-	Δe^{**}	-	99.50%	-
XPSMF3DIO16801	4		121.1		Δe^{**}		- 99.36%	
XPSMF3DIO20802	4		163.5		Δe^{**}		- 99.47%	
XPSMF3DIO8801	4		122.5		Δe^{**}		- 99.54%	
Quantum Safety								
140 CPU 651 60S	3		89		d		>95%	
140 CPU 671 60S	3		89		d		>95%	
140 SDI 953 00S	3		616		d		>99%	
140 SDO 953 00S	3		507		d		>99%	
140 SAI 940 00S	3		556		d		>99%	

Reference	BS EN 62061 / BS EN 61508						BS EN 61508	
	PFH _D (Dangerous Failure per Hour) (70°C)		SIL Claim Limit - max SIL achievable by circuit incorporating this component (Safety Integrity Level)					
	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	T1 [hours]	HFT	SFF[%]	Not for Machinery! PFD [Failure on demand]
Safety Modules:								
XPSMP11123P	6.495E-09	-	△3 **	-		1	99.38%	
XPSMP11123	6.495E-09	-	△3 **	-		1	99.38%	
XPSAC3421P	1.752E-09	-	△2	-		1	99.99%	
XPSAC3721P	1.752E-09	-	△2	-		1	99.99%	
XPSAC5121P	1.752E-09	-	△2	-		1	99.99%	
XPSAC3721	1.752E-09	-	△2	-		1	99.99%	
XPSAC1321	1.752E-09	-	△2	-		1	99.99%	
XPSAC5121	1.752E-09	-	△2	-		1	99.99%	
XPSAC3421	1.752E-09	-	△2	-		1	99.99%	
XPSAC1321P	1.752E-09	-	△2	-		1	99.99%	
XPSAF5130	3.194E-09	-	△3	-		1	99.99%	
XPSAF5130P	3.193E-09	-	△3	-		1	99.99%	
XPSAFL5130P	4.183E-09	-	△2/3***	-		1	99.99%	
XPSAFL5130	4.183E-09	-	△2/3***	-		1	99.99%	
XPSAK371144P	5.960E-09	-	△3	-		1	99.99%	
XPSAK351144P	5.960E-09	-	△3	-		1	99.99%	
XPSAK371144	5.960E-09	-	△3	-		1	99.99%	
XPSAK351144	5.960E-09	-	△3	-		1	99.99%	
XPSAK361144	5.960E-09	-	△3	-		1	99.99%	
XPSAK311144	5.960E-09	-	△3	-		1	99.99%	
XPSAK311144P	5.960E-09	-	△3	-		1	99.99%	
XPSAK361144P	5.960E-09	-	△3	-		1	99.99%	
XPSAR351144	6.801E-10	-	△3	-		1	99.99%	
XPSAR371144	6.801E-10	-	△3	-		1	99.99%	
XPSAR311144	6.801E-10	-	△3	-		1	99.99%	
XPSAR351144P	6.801E-10	-	△3	-		1	99.99%	
XPSAR371144P	6.801E-10	-	△3	-		1	99.99%	
XPSAR311144P	6.801E-10	-	△3	-		1	99.99%	
XPSAT5110	5.309E-09	1.741E-08	△3	_ 2		1	99,99%/96,56%	
XPSAT3410	5.309E-09	1.741E-08	△3	_ 2		1	99,99%/96,56%	
XPSAT3710	5.309E-09	1.741E-08	△3	_ 2		1	99,99%/96,56%	
XPSAT5110T100	5.309E-09	1.741E-08	△3	_ 2		1	99,99%/96,56%	

Reference	BS EN 62061 / BS EN 61508						BS EN 61508	
	PFH _D (Dangerous Failure per Hour) (70°C)		SIL Claim Limit - max SIL achievable by circuit incorporating this component (Safety Integrity Level)				Low demand mode:	
	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	T1 [hours]	HFT	SFF[%]	Not for Machinery! PFD [Failure on demand]
XPSATE5110	5.277E-09	1.655E-08	△3	△2		1	99,99%/98,56%	
XPSATE5110P	5.277E-09	1.655E-08	△3	△2		1	99,99%/98,56%	
XPSATE3410	5.277E-09	1.655E-08	△3	△2		1	99,99%/98,56%	
XPSATE3410P	5.277E-09	1.655E-08	△3	△2		1	99,99%/98,56%	
XPSATE3710	5.277E-09	1.655E-08	△3	△2		1	99,99%/98,56%	
XPSATE3710P	5.277E-09	1.655E-08	△3	△2		1	99,99%/98,56%	
XPSAV11113P	6.495E-09		△3 **			1	99.55%	
XPSAV11113T050	6.495E-09		△3 **			1	99.55%	
XPSAV11113	6.495E-09		△3 **			1	99.55%	
XPSAX5120	2.799E-10	-	△2	-		1	99.99%	
XPSBA3420	1.14E-06	-	no SIL	-		0	17.56%	
XPSBA3720	1.14E-06	-	no SIL	-		0	17.56%	
XPSBA5120	1.14E-06	-	no SIL	-		0	17.56%	
XPSBC1110	6.961E-09	-	△3	-		1	99.99%	
XPSBC3110	6.961E-09	-	△3	-		1	99.99%	
XPSBC3410	6.961E-09	-	△3	-		1	99.99%	
XPSBC3710	6.961E-09	-	△3	-				
XPSBF1132	2.388E-09	-	△3 **	-		1	99.81%	
XPSBF1132P	2.388E-09	-	△3 **	-		1	99.81%	
XPSFB3411	9.768E-09	-	△3	-		1	99.99%	
XPSFB3711	9.768E-09	-	△3	-		1	99.99%	
XPSFB5111	9.768E-09	-	△3	-		1	99.99%	
XPSFB5311	9.768E-09	-	△3	-		1	99.99%	
XPSDA5142	6.530E-09	-	△3	-		1	99.99%	
XPSDA3442	6.530E-09	-	△3	-		1	99.99%	
XPSDA3742	6.530E-09	-	△3	-		1	99.99%	
XPSDMB1132P	2.228E-09	-	△3 **	-		1	99.81%	
XPSDMB1132	2.228E-09	-	△3 **	-		1	99.81%	
XPSDME1132TS220	2.285E-09	-	△3 **	-		1	99.81%	
XPSDME1132	2.285E-09	-	△3 **	-		1	99.81%	
XPSDME1132P	2.285E-09	-	△3 **	-		1	99.81%	

Reference	BS EN 62061 / BS EN 61508						BS EN 61508	
	PFH _D (Dangerous Failure per Hour) (70°C)		SIL Claim Limit - max SIL achievable by circuit incorporating this component (Safety Integrity Level)				SFF[%]	Low demand mode: Not for Machinery! PFD [Failure on demand]
	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	T1[hours]	HFT		
XPSCM1144P	7.302E-09	-	△1	-		0	99.90%	
XPSCM1144	7.302E-09	-	△1	-		0	99.90%	
XPSECM3431	1.770E-09	-	△3 *	-		1	57.70%	
XPSECM5131	1.770E-09	-	△3 *	-		1	57.70%	
XPSECM3731	1.770E-09	-	△3 *	-		1	57.70%	
		-		-				
XPSECP5131	3.803E-09	-	△3 *	-		1	59.82%	
XPSECP3431	3.803E-09	-	△3 *	-		1	59.82%	
XPSECP3731	3.803E-09	-	△3 *	-		1	59.82%	
XPSOT3444	2.749E-09	-	△3*	-		1	99.99%	
XPSOT3744	2.749E-09	-	△3*	-		1	99.99%	
XPSPVT1180	5.659E-08	-	△3*	-		1	99.03%	
XPSPVK3484	1.886E-09	-	△3*	-		1	99.99%	
XPSPVK3784	1.886E-09	-	△3*	-		1	99.99%	
XPSPVK1184	1.886E-09	-	△3*	-		1	99.99%	
XPSVN1142	7.756E-09	-	△2	-		1	99.22%	
XPSVN1142HS	7.756E-09	-	△2	-		1	99.22%	
XPSVN1142LF	7.756E-09	-	△2	-		1	99.22%	
XPSVN3442	7.756E-09	-	△2	-		1	99.22%	
XPSVN3442HS	7.756E-09	-	△2	-		1	99.22%	
XPSVN3442LF	7.756E-09	-	△2	-		1	99.22%	
XPSVN3742	7.756E-09	-	△2	-		1	99.22%	
XPSVN3742HS	7.756E-09	-	△2	-		1	99.22%	
XPSVN3742LF	7.756E-09	-	△2	-		1	99.22%	
XPSVNE1142P	7.454E-09	-	△2	-		1	99.48%	
XPSVNE1142HSP	7.454E-09	-	△2	-		1	99.48%	
XPSVNE1142LFP	7.454E-09	-	△2	-		1	99.48%	
XPSVNE3442P	7.454E-09	-	△2	-		1	99.48%	
XPSVNE3442HSP	7.454E-09	-	△2	-		1	99.48%	
XPSVNE3442LFP	7.454E-09	-	△2	-		1	99.48%	
XPSVNE3742P	7.454E-09	-	△2	-		1	99.48%	
XPSVNE3742HSP	7.454E-09	-	△2	-		1	99.48%	
XPSTSA3442P	1.3E-07	-	2	-		1	60-90%	
XPSTSA3742P	1.3E-07	-	2	-		1	60-90%	

Reference	BS EN 62061 / BS EN 61508						BS EN 61508	
	PFH _D (Dangerous Failure per Hour) (70°C)		SIL Claim Limit - max SIL achievable by circuit incorporating this component (Safety Integrity Level)				Low demand mode:	
	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	T1 [hours]	HFT	SFF[%]	Not for Machinery! PFD [Failure on demand]
XPSTSA5142P	1.3E-07	-	2	-		1	60-90%	
XPSTSW3742P	1.3E-07	-	2	-		1	60-90%	
XPSTSW3442P	1.3E-07	-	2	-		1	60-90%	
XPSTSW5142P	1.3E-07	-	2	-		1	60-90%	
XPSVC1132	2.389E-09	-	△3 **	-		1	99.83%	
XPSVC1132P	2.389E-09	-	△3 **	-		1	99.83%	
Safety Controller:								
XPSMC16X (using the transistor outputs)	1.288E-08		3 **			1	99.88%	
XPSMC16X (using the relay outputs)	1.251E-08		3 **			1	99.89%	
XPSMC32X (using the transistor outputs)	1.288E-08		3 **			1	99.89%	
XPSMC32X (using the relay outputs)	1.251E-08		3 **			1	99.90%	
XPSMC16Z. (using the transistor outputs)	1.289E-08		3 **			1	99.86%	
XPSMC16Z. (using the relay outputs)	1.260E-08		3 **			1	99.87%	
XPSMC32Z. (using the transistor outputs)	1.289E-08		3 **			1	99.88%	
XPSMC32Z. (using the relay outputs)	1.260E-08		3 **			1	99.88%	
ASi Safety:								
ASISAFEMON1	9.0E-09		3 **			87600	1	
ASISAFEMON1B	9.0E-09		3 **			87600	1	
ASISAFEMON2	9.0E-09		3 **			87600	1	
ASISAFEMON2B	9.0E-09		3 **			87600	1	
ASISSLB5	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
ASISSLB4	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
ASISSLC2	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
ASISSLC1	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	

Reference	BS EN 62061 / BS EN 61508					BS EN 61508		
	PFH _D (Dangerous Failure per Hour) (70°C)		SIL Claim Limit - max SIL achievable by circuit incorporating this component (Safety Integrity Level)			Low demand mode:		
	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	T1 [hours]	HFT	SFF[%]	Not for Machinery! PFD [Failure on demand]
ASISSLLS	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
ASISEA1C	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
ASISEK1C	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
ASISSLE4	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
ASISSLE5	incl. in monitor		3 **		incl. in monitor	1	incl. in monitor	
Safety PLC								
XPSMF3022	3.927E-09		3 **		87600		99.86%	4.159E-05
XPSMF31222	3.927E-09		3 **		87600		99.86%	4.159E-05
XPSMF3502	5.665E-09		3 **		87600		99.86%	5.460E-05
XPSMF4000	4.722E-09		3 **		87600		99.80%	8.565E-05
XPSMF4002	4.722E-09		3 **		87600		99.80%	8.565E-05
XPSMF4020	4.722E-09		3 **		87600		99.80%	8.565E-05
XPSMF4022	4.722E-09		3 **		87600		99.80%	8.565E-05
XPSMF4040	4.722E-09		3 **		87600		99.80%	8.565E-05
XPSMF4042	4.722E-09		3 **		87600		99.80%	8.565E-05
XPSMFCPU22	4.367E-09	-	3 **	-	87600		99.77%	4.884E-05
XPSMFDI3201	6.378E-10	-	3 **	-	87600		99.75%	2.821E-05
XPSMFDI2401	8.702E-10	-	3 **	-	87600		99.82%	3.842E-05
XPSMFCIO2401	3.287E-09	-	3 **	-	87600		99.66%	5.993E-05
XPSMFDIO241601	1.096E-09		3 **		87600		99.87%	3.711E-05
XPSMFD0801	6.241E-09		3 **		26280		99.66%	4.181E-05
XPSMFAI801	4.148E-09	-	3 **	-	87600		99.62%	1.747E-05
XPSMFAO801	1.836E-09	-	3 **	-	87600		99.89%	2.682E-05
XPSMFPS01	1.164E-10	-	3 **	-	87600		99.99%	6.028E-06
XPSMFGEH01	8.100E-11	-	3 **	-	87600		99.95%	4.196E-06
XPSMF1DI1601	2.773E-09	-	3 **	-	87600		99.79%	3.684E-05
XPSMF2DO401	4.271E-09		3 **		87600		99.77%	5.192E-05
XPSMF2DO801	1.730E-09		3 **		26280		99.79%	2.241E-05
XPSMF2DO1601	3.903E-09		3 **		87600		99.77%	3.626E-05
XPSMF2DO1602	4.629E-09		3 **		26280		99.80%	2.413E-05
XPSMF3AIO8401	5.160E-09	-	3 **	-	87600		99.78%	8.575E-05
XPSMF3DIO16801	6.189E-09		3 **		87600		99.72%	6.655E-05
XPSMF3DIO20802	4.247E-09		3 **		87600		99.77%	5.108E-05
XPSMF3DIO8801	6.582E-09		3 **		87600		99.79%	4.604E-05

Reference	BS EN 62061 / BS EN 61508						BS EN 61508	
	PFH _D (Dangerous Failure per Hour) (70°C)		SIL Claim Limit - max SIL achievable by circuit incorporating this component (Safety Integrity Level)					
	Device + outputs in stop cat.0	Device + outputs in stop cat.1	Device + outputs in stop cat.0	Device + outputs in stop cat.1	T1 [hours]	HFT	SFF[%]	Not for Machinery! PFD [Failure on demand]
Quantum Safety								
140 CPU 651 60S	6.000E-09		2		87600		>97%	1.100E-04
140 CPU 671 60S	6.000E-09		2		87600		>97%	1.100E-04
140 SDI 953 00S	2.000E-09		2		87600		>99,9%	2.000E-05
140 SDO 953 00S	2.000E-09		2		87600		>99,9%	2.000E-05
140 SAI 940 00S	2.000E-09		2		87600		>99,9%	2.000E-05

* Up to this value only in full connection with the basis module.

** Device contains complex electronic and/or embedded software.

*** Cat.4 only with additional measures for the inputs circuits.

The calculations of the MTTF_d and PFH_D values (except for the Safety PLCs and the ASi Safety monitors) given in this table are based on the I values from RDF2000 for 70°C.

The DC is given for the device internal; the DC regarding the connected sensors and actuators is not always the same! It depends also on the users wiring and may be different from the value of the internal DC.

1 year = 365 days x 24hours = 8760 hours

3 years = 3 x 365 days x 24hours = 26280 hours

10 years = 10 x 365 days x 24hours = 87600 hours

The information provided in this documentation contains general descriptions and/or technical characteristics of the performance of the products contained herein. This documentation is not intended as a substitute for and is not to be used for determining suitability or reliability of these products for specific user applications. It is the duty of any such user or integrator to perform the appropriate and complete risk analysis, evaluation and testing of the products with respect to the relevant specific application or use thereof. Neither Schneider Electric nor any of its affiliates or subsidiaries shall be responsible or liable for misuse of the information contained herein.