



MTBF –Calculation
(MIL-HDBK-217)
30°C

12/2004

Item No.	Article Description	MTBF / h 30°C	MTBF / a 30°C
	<i>Fieldbus coupler</i>		
750-301	PROFIBUS DP/FMS 1.5 MBd	1379196	157,33
750-303	PROFIBUS DP/FMS 12 MBd	1332445	152,00
750-304	INTERBUS 500 kBaud	1542877	176,01
750-305	CAN CAL	1361545	155,32
750-306	DeviceNet	1631854	186,16
750-307	CANopen	1361545	155,32
750-310	CC-Link	1327722	151,46
750-312	MODBUS RS485 (150-19200 Baud)	971204	110,79
750-314	MODBUS (RS232, 150-19200 Bd)	973738	111,08
750-315	MODBUS (RS485, 1.2-115.2 kBd)	1203225	137,26
750-316	MODBUS (RS232, 1.2-115.2 kBd)	1207117	137,70
750-319	Lon-Works	1157501	132,04
750-333	PROFIBUS DP/V1 12 Mbaud	1371347	156,44
750-337	CANopen	1526438	174,13
750-339	Fire-Wire	960624	109,59
750-341	Ethernet TCP-IP 10/100MBit	1438828	164,14
750-342	EtherNet TCP-IP 10MBit	1551614	177,00
750-343	PROFIBUS DP ECO 12 MBaud	1549811	176,80
750-344	INTERBUS ECO 500 kBit	1973671	225,15
750-345	INTERBUS ECO 2MBaud	1978748	225,73
750-346	DeviceNet ECO	2365856	269,89
750-347	CANopen ECO MSS	1760563	200,84
750-348	CANopen ECO	2023718	230,86
	<i>Digital Input Modules</i>		
750-400	2DI 24V DC 3.0ms	12038040	1373,26
750-401	2DI 24V DC 0.2ms	12083132	1378,41
750-402	4DI 24V DC 3.0ms	9898050	1129,14
750-403	4DI 24V DC 0.2ms	10509721	1198,92
750-404	up/down counter 100kHz	4126945	470,79
750-405	2DI 230V AC	10921800	1245,93
750-406	2DI 120V AC	10890873	1242,41
750-408	4DI 24V DC 3.0ms low side switch	11063171	1262,05
750-409	4DI 24V DC 0.2ms low side switch	11054610	1261,08
750-410	2DI 24V DC 3.0ms proximity switch	11617100	1325,25
750-411	2DI 24V DC 0.2ms proximity switch	11140820	1270,92
750-412	2DI 48V DC 3.0ms	13053126	1489,06
750-414	4DI 5V DC 0.2ms	13266119	1513,36
750-415	4DI 24V AC /DC 20ms	12884937	1469,88
750-418	2DI 24V DC, 3.0ms ,diagn., acknol.	7052853	804,57
750-419	2DI 24V DC ,0.2ms , diagn.	7535632	859,65
750-422	4DI 24V DC, pulse extension	8580745	978,87
750-423	4DI 24V AC/DC ,50ms, power contacts	8504125	970,13
750-424	2DI 24V DC, intruder detection	5773672	658,64
750-425	2DI Namur	2901799	331,03
750-427	2DI 110V DC	8028260	915,84

750-430	8DI 24V DC 3.0ms	7251632	827,25
750-431	8DI 24V DC 0.2ms	6641196	757,61
750-435	1DI NAMUR EEx i	8912656	1016,73
	<i>Analogue Input Modules</i>		
750-452	2AI 0-20mA differential input	2544206	290,24
750-453	4AI 0-20mA single ended	2459964	280,63
750-454	2AI 4-20mA differential input	2306858	263,16
750-455	4AI 4-20mA single ended	2459964	280,63
750-456	2AI $\pm 10V$ DC	2882334	328,80
750-457	4AI $\pm 10V$ DC single ended	2502377	285,46
750-459	4AI 0-10V DC single ended	2502377	285,46
750-461	2AI Resistance Temperature Device	2106194	240,27
750-465	2AI 0-20mA single ended	2144598	244,65
750-466	2AI 4-20mA single ended	2186175	249,39
750-467	2AI 0-10V DC single ended	2422070	276,30
750-468	4AI 0-10V DC single ended	2374225	270,84
750-469	2AI thermocouple (TC) diagn.	2470051	281,78
750-472	2AI 0-20mA 16 Bit single ended	3799536	433,44
750-474	2AI 4-20mA 16 Bit single ended	3799536	433,44
750-475	2AI 0-1A AC/DC differential input	1769317	201,84
750-476	2AI $\pm 10V$ DC 16 Bit single ended	4384426	500,16
750-478	2AI 0-10V DC 16 Bit single ended	4384426	500,16
750-479	2AI $\pm 10V$ DC differential measurement input	3743496	427,05
750-480	2AI 0-20mA differential measurement input	3636893	414,89
750-485	2AI 4-20mA EEx i	3419505	390,09
750-492	2AI 4-20mA differential measurement input	3636893	414,89
	<i>Digital Output Modules</i>		
750-501	2DO 24V DC 0.5A	8676790	989,82
750-502	2DO 24V DC 2.0A	8744316	997,53
750-504	4DO 24V DC 0.5A	7309941	833,90
750-506	2DO 24V DC 0.5A diagn.	7336757	836,96
750-507	2DO 24V DC 2.0A diagn.	7336757	836,96
750-509	2DO 230V AC 0.3A SSR	5846927	667,00
750-512	2DO 230V AC 2.0A Relais 2 NO	7104087	810,41
750-513	2DO 230V AC 2.0A Relais 2NO pot.free	7519362	857,79
750-514	2DO 125V AC 0.5A Relais 2CO pot.free	7170414	817,98
750-516	4DO 24V DC 0.5A low side switch	9292817	1060,10
750-517	2DO 230V AC 1.0A Relais 2CO pot.free	9482268	1081,71
750-519	4DO 5V DC, 20mA	9387909	1070,95
750-522	2DO 230V AC ,3A, 30s, SSR	8009612	913,72
750-523	1DO 230V AC 16A rel. 1NO pot.free	5467768	623,75
750-530	8DO 24V DC 0.5A	3416351	389,73
750-535	2DO 24V DC EEx i	5412720	617,47
	<i>Analogue Output Modules</i>		
750-550	2AO 0-10V DC	2522323	287,74
750-552	2AO 0-20mA	3930663	448,40
750-554	2AO 4-20mA	2934366	334,75
750-556	2AO $\pm 10V$ DC	2803398	319,80
750-557	4AO $\pm 10V$ DC	2270251	258,98

750-559	4AO 0-10V DC	2336285	266,52
750-585	2AO 0-20mA EEx i	2438192	278,14
	<i>System Modules</i>		
750-600	End module	431034495	49171,18
750-601	Supply module 24V DC/fuse	20907380	2385,05
750-602	Supply module 24V DC	325732906	37158,67
750-604	Field side connection module	431034495	49171,18
750-609	Supply module 230 V AC / fuse	7250580	827,13
750-610	Supply module 24 V DC / fuse / diagn.	11791063	1345,09
750-611	Supply module 230V AC / fuse / diagn.	8499787	969,63
750-612	Supply module 0-230V AC/DC	325732906	37158,67
750-613	Internal system supply module 24V DC	7633588	870,82
750-614	Field side connection module, 0-230 V AC/DC	431034495	49171,18
750-615	Supply module 120V AC / fuse	7177205	818,75
750-616	Separation module	431034495	49171,18
750-621	Separation module with contacts	431034495	49171,18
750-622	Binary spacer module with power supply	4412478	503,36
750-624	Overvoltage protection, field side power supply	74404764	8487,88
750-625	Supply module 24V DC Eexi	6151575	701,75
750-626	Filter module, system & field side power supply	33025098	3761,41
	<i>Special Modules</i>		
750-635	Digital pulse interface	5772672	658,53
750-638	up/down counter, 500kHz	9402031	1072,56
750-650	Serial interface RS 232 C	2481882	283,13
750-653	Serial interface RS 485	2607766	297,49
	<i>Fieldbus Controller</i>		
750-804	Interbus-Controller	1942577	221,60
750-806	DeviceNet-Controller	1764135	201,25
750-812	MODBUS-Controller RS 485 (150-19200 Baud)	1831066	208,88
750-814	MODBUS-Controller RS 232 (150-19200 Baud)	1372985	156,63
750-815	MODBUS-Controller RS 485 (1.2-115.2 kBaud)	1545739	176,33
750-816	MODBUS-Controller RS 232 (1.2-115.2 kBaud)	1206054	137,58
750-819	LON-Works Controller	1639103	186,98
750-833	PROFIBUS DP/V1 -Controller	1323084	150,93
750-837	CANopen-Controller	1995769	227,67
750-841	ETHERNET-Controller 100MBit/s	1485465	169,46
750-842	ETHERNET-Controller 10MBit/s	1107027	126,29
	<i>IPC</i>		
758-870	IPC	224792	