



Overview

Safety

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Compact safety magnetic sensors



		MC36CH_M5	MC36CH_A2	MC88CH_M5	MC88CH_A2	MC88CH_T1
Switching distance	Sao: 5mm; Sar: 15mm	With MC36CM			With MC88CM1	
	Sao: 8mm; Sar: 18mm				With MC88CM2	
	Sao: 18mm; Sar: 30mm				With MC88CM3	
	Sao: 15mm; Sar: 20mm					
	Sao: 16 mm; Sar: 20mm					
Connection type	M8 plug left exit	▼		▼		
	M8 plug right exit	▼		▼		
	Cable left exit		▼		▼	
	Cable right exit		▼		▼	
	Pigtail M12 left exit					▼
	Pigtail M12 right exit					▼
	Cable					
Reed switch outputs	1 NO					
	1 NC + 1 NO	▼	▼	▼	▼	▼
	2 NO	▼	▼	▼	▼	▼
	2 NO + 1 NC				▼	
LED indication	With LED		▼		▼	
	No LED		▼		▼	
Safety parameters	Electrical life cycle	700.000 operations @ 250 mA resistive load				
	B10d (for each channel)	80.000.000 of operations				
Environmental	Operating temperature	-25° to +80°C (-13° to +176°F)				
	Protection degree	IP67	IP67	IP67	IP67	IP67
Electrical data	Switching voltage	12-24 VAC/DC				
	Switching current	250 mA	250 mA	250 mA	250 mA	250 mA
	Switching power	6 W	6 W	6 W	6 W	6 W
Housing	Style	Cubic - miniature			Cubic - standard	
	Length	36 mm / 1,41"			88 mm / 3,46"	
	Width	26 mm / 1,02"			25 mm / 0,98"	
	Height	13 mm / 0,51"			13 mm / 0,51"	
	Diameter					
	Material	PBT			PBT	
Actuator	MC36CM		▼			
	MC88CM1, MC88CM2, MC88CM3				▼	
	CLSA2 (for M18)					
	CLSA3 (for M30)					
Approvals	CE, cULus	CE, cULus	CE, cULus	CE, cULus	CE, cULus	

Safety magnetic sensors



		SMSA2P10	SMSA2(3)P02	SMSA2P03	SMSA3P03
Switching distance	Sao: 5mm; Sar: 15mm				
	Sao: 8mm; Sar: 18mm				
	Sao: 18mm; Sar: 30mm				
	Sao: 15mm; Sar: 20mm		With CLSA2/CLSA3		
	Sao: 16 mm; Sar: 20mm	With CLSA2		With CLSA2	With CLSA3
Connection type	M8 plug left exit				
	M8 plug right exit				
	Cable left exit				
	Cable right exit				
	Pigtail M12 left exit				
	Pigtail M12 right exit				
	Cable	▼	▼	▼	▼
Reed switch outputs	1 NO	▼			
	1 NC + 1 NO		▼		
	2 NO			▼	▼
	2 NO + 1 NC				
LED indication	With LED		(on request on M18)		
	No LED	▼	▼	▼	▼
Safety parameters	Electrical life cycle				
	B10d (for each channel)				
Environmental	Operating temperature	-25° to +70°C (-13° to +158°F)			
	Protection degree	IP67	IP67	IP67	IP67
Electrical data * CE version	Switching voltage	100 VAC			
	Switching current	250 mA	250 mA	250 mA	250 mA
	Switching power	5 VA	5 VA	5 VA	5 VA
Housing	Style	Cylindrical		Cylindrical	
	Length	38 mm / 1,49"	38 mm / 1,49" 42 mm / 1,65"	38 mm / 1,49"	42 mm / 1,65"
	Width				
	Height				
	Diameter	M18 x 1	M18 x 1 or M30 x 1.5	M18 x 1	M30 x 1.5
	Material	PBT		PBT	
Actuator	MC36CM				
	MC88CM1, MC88CM2, MC88CM3				
	CLSA2 (for M18)	▼	▼	▼	
	CLSA3 (for M30)		▼		▼
Approvals	CE	CE (UL on request for M18)	CE	CE	

Overview

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Safety modules



		SMS20	SMS31	SMSA31	SM2H21	SME41
Safety functions	Emergency stop	▼	▼			
	Safety magnetic switch	▼	▼	▼		
	Safety limit switch	▼	▼	▼		
	Safety hinge	▼	▼	▼		
	Electromechanical interlock	▼	▼			
	Lift levelling	▼	▼			
	Two-hand controls				▼	
	ESPE type 2					
	ESPE type 4					
	Safety mats					
	Expansion relay unit		in combination with SME41			
Safety outputs	NO relay outputs	2	3	3	2	4
	OSSD delayed outputs					
	OSSD instantaneous outputs					
Auxiliary outputs	NC relay outputs		1	1	1	1
	OSSD outputs					
	PNP output				1	
Start mode	Manual	▼	▼	▼		
	Automatic	▼	▼	▼		
	Monitored manual	▼	▼	▼		
Connection type	Pluggable screw terminals	▼	▼	▼	▼	▼
	Fix screw terminals					
Safety parameters	Safety	Cat. 4 - PL e as EN ISO 13849				
	MTTFD	420,8	420,8	420,8	422,1	363,4
	PFHD	1,85 E-10	1,85 E-10	1,85 E-10	1,35 E-10	1,59 E-10
	DCavg	99%	99%	99%	99%	99%
Power supply	24 VDC/AC	▼	▼	▼	▼	▼
Dimensions	Width	17,5 mm / 0,69"				
	Height	110,8 mm / 4,36"				
	Depth	121,1 mm / 4,77"				
Approvals		CE, UL, TÜV, RoHS EN 81-20, EN 81-50	CE, UL, TÜV, RoHS EN 81-20, EN 81-50	CE, TÜV, cULus, RoHS	CE, TÜV, cULus, RoHS	CE, TÜV, cULus, RoHS

Safety modules



		CM22D0A	CM30D1A	CM40D0A	CL20D2A
Safety functions	Emergency stop	▼	▼	▼	▼
	Safety magnetic switch	▼	▼	▼	▼
	Safety limit switch	▼	▼	▼	▼
	Safety hinge	▼	▼	▼	-
	Electromechanical interlock	▼	▼	▼	-
	Lift levelling				▼
	Two-hand controls				
	ESPE type 2	▼	▼	▼	
	ESPE type 4	▼	▼	▼	
	Safety mats	▼	▼	▼	
	Expansion relay unit	in combination with SME41			
	Safety outputs	NO relay outputs			
OSSD delayed outputs		2 / -			
OSSD instantaneous outputs		2 / 3 / 4	3	4	2
Auxiliary outputs	NC relay outputs	-	-		-
	OSSD outputs	- / 1 / -	1		2
	PNP output				
Start mode	Manual	▼	▼	▼	▼
	Automatic	▼	▼	▼	▼
	Monitored manual	▼	▼	▼	▼
Connection type	Pluggable screw terminals				
	Fix screw terminals	▼	▼	▼	▼
Safety parameters	Safety	Cat. 4 - PL e as EN 13849 / SIL3 as IEC 61508 / SILCL3 as IEC 62061			
	MTTFD	2403	2403	2403	1268
	PFHD	1,89 E-09	1,89 E-09	1,89 E-09	3,58 E-09
	DCavg	99%	99%	99%	99%
Power supply	24 VDC	▼	▼	▼	▼
Dimensions	Width	17,5 mm / 0,69"			
	Height	90 mm / 3,54"			
	Depth	63 mm / 2,48"			
Approvals		CE, TÜV, cULus, RoHS	CE, TÜV, cULus, RoHS	CE, TÜV, cULus, RoHS	CE, TÜV, cULus, RoHS EN 81-20, EN 81-50

Overview









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Limit switches - Safety hinge - E



		PS21S	PS21H	PS21R	PS31S	PS31R	P
Actuation	External actuator key	▼			▼		
	External hinge		▼				
	Hinge mount						
	Pull wire			▼		▼	
	Electromagnetic interlock						
Reset	No reset			▼		▼	
	Manual reset			▼		▼	
Interlock	Electrical						
	Mechanical						
Contact outputs	1 NC + 1 NO	▼	▼	▼	▼	▼	
	2 NC	▼	▼	▼	▼	▼	
	2 NC + 1 NO				▼	▼	
	2 NC + 2 NO						
	1 NC + 2 NO				▼	▼	
	3 NC				▼	▼	
	3 NC + 1 NO						
	2 NC operated by solenoid						
	1 NO operated by solenoid						
	1 NO operated by key						
1 NC operated by key							
Rated operational current	I _e /AC-15 230 VAC					3,1 A	
	I _e /DC-13 24 VDC					2,8 A	
Safety parameters	Mechanical durability					1.000.000 of operations	
	B10d					2.000.000 of operations	
Housing	Width		30 mm / 1,18"		40 mm / 1,57"		
	Plastic	▼	▼				
	Metal			▼	▼	▼	
	Protection degree	IP65	IP65	IP66	IP66	IP66	
Approvals	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS

Electromagnetic safety interlock

							
PS42S	PS42R	PS43S	PS43R	PS38H_T1	PS38H_T2	ESI_E	ESI_M
▼		▼				▼	▼
	▼		▼	▼	▼		
	▼		▼			▼	
	▼		▼				▼
▼	▼	▼	▼				
▼	▼	▼	▼				
		▼	▼		▼		
		▼	▼	▼			
						ESI1	ESI1
						ESI2	ESI2
						ESI3	ESI3
						ESI1	ESI1
						ESI2	ESI2
						ESI3	ESI3
				4 A		4 A	4 A
				2 A		4 A	4 A
				1.000.000 of operations		1.000.000 of operations	
				2.000.000 of operations		4.000.000 of operations	
50 mm / 1,97"		60 mm / 2,36"		60 mm / 2,36"		40 mm / 1,57"	
▼	▼	▼	▼	▼	▼	▼	▼
IP66	IP66	IP66	IP66	IP67		IP65	
CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS	CE, UL, CSA, RoHS		CE, cULus, IMQ, RoHS	

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