



Overview

Safety

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Compact safety magnetic sensors



		MC36CH_M5	MC36CH_A2	MC36CH_M5L	MC36CH_A2L
Switching distance	Switch on distance S_{ao}	5 mm		5 mm	
	Switch off distance S_{ar}	15 mm		15 mm	
Connection type	M8 plug left exit	▼		▼	
	M8 plug right exit	▼		▼	
	Cable left exit		▼		▼
	Cable right exit		▼		▼
	Cable		▼		▼
Reed switch outputs	1NO				
	1NC + 1NO		▼		▼
	2NO		▼		▼
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)		-25° to +80°C (-13° to +176°F)	
	Degree protection	IP67		IP67	
Electrical data	Switching voltage	12-24 VAC/DC		12-24 VAC/DC	
	Switching current	250 mA	250 mA	250 mA	250 mA
	Switching power	6 W	6 W	6 W	6 W
Housing	Style	Cubic		Cubic	
	Length	36 mm / 1,41"		36 mm / 1,41"	
	Width	26 mm / 1,02"		26 mm / 1,02"	
	Height	13 mm / 0,51"		13 mm / 0,51"	
	Diameter				
	Material	PBT		PBT	
Actuator	MC36CM	▼		▼	
	CLSA2 (for M18)				
	CLSA3 (for M30)				
Approvals	CE, cULus	CE, cULus	CE, cULus	CE, cULus	

Safety magnetic sensors



		SMSA2P10	SMSA2(3)P02	SMSA2P03	SMSA3P03
Switching distance	Switch on distance S_{ao}	16 mm	15 mm	16 mm	16 mm
	Switch off distance S_{ar}	20 mm		20 mm	
Connection type	M8 plug left exit				
	M8 plug right exit				
	Cable left exit				
	Cable right exit				
	Cable	▼	▼	▼	▼
Reed switch outputs	1 NO	▼			
	1 NC + 1 NO		▼		
	2 NO			▼	▼
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)		-25° to +70°C (-13° to +158°F)	
	Degree protection	IP67	IP67	IP67	IP67
Electrical data	Switching voltage	100 VAC		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	M18 or M30	M18	M30
	Material	PBT		PBT	
Actuator	MC36CM				
	CLSA2 (for M18)	▼	▼	▼	▼
	CLSA3 (for M30)		▼	▼	▼
Approvals	CE	CE (UL on request for M18)	CE	CE	

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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	

Safety

Limit switches - Safety hinge - I

								
		PS21S	PS21H	PS21R	PS31S	PS31R	PS42S	
Actuation	External actuator key	▼			▼		▼	
	External hinge		▼					
	Hinge mount							
	Pull wire			▼		▼		
	Electromagnetic interlock							
Reset	No reset			▼		▼		
	Manual reset			▼		▼		
Interlock	Electrical							
	Mechanical							
Contact outputs	1NC + 1NO	▼	▼	▼	▼	▼	▼	
	2NC	▼	▼	▼	▼	▼	▼	
	2NC + 1NO				▼	▼		
	2NC + 2NO							
	1NC + 2NO				▼	▼		
	3NC				▼	▼		
	3NC + 1NO							
	2NC operated by solenoid							
	1NO operated by solenoid							
	1NO operated by key							
1NC 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	IP66	IP65	IP66	IP65	IP66	IP66
Approvals	CE, UL, CSA, RoHS		CE, UL, CSA, RoHS		CE, UL, CSA, RoHS		CE, UL, CSA, RoHS	

Electromagnetic safety interlock



	PS42H	PS42R	PS43S	PS43R	PS38H_T1	PS38H_T2	ESI_E			ESI_M			
	▼		▼				▼			▼			
		▼		▼	▼	▼							
		▼		▼					▼				
		▼		▼							▼		
	▼	▼	▼	▼									
	▼	▼	▼	▼									
			▼	▼									
			▼	▼									
			▼	▼	▼								
								ESI1	ESI2	ESI3	ESI1	ESI2	ESI3
									ESI2	ESI3		ESI2	ESI3
								ESI1	ESI2		ESI1	ESI2	
								ESI1		ESI3	ESI1		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					
RoHS	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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