

Datasheet - PROTECT SELECT-SK

Programmable safety controllers / PROTECT SELECT



(Minor differences between the printed image and the original product may exist!)

Ordering details

Product type description	PROTECT SELECT-SK
Article number	101218030
EAN Code	
eCl@ss	27-37-19-01

Approval

Approval




Classification

Standards	ISO 13849-1, EN 62061, EN 60947-5-1, IEC 61508
PL	up e
Control category	bis 4
DC	Middle
CCF	> 65 points
PFH value	1.78 x 10 ⁻⁸ /
- notice	Valid for dual channel and 60% relay load
SIL	up 3

Mission time	20 Years																		
- notice	The PFH value is applicable for the combinations listed in the table for contact load (K) (current through enabling paths) and switching cycle number (n-op/y). In case of 365 operating days per year and a 24-hour operation, this results in the specified switching cycle times (t-cycle) for the relay contacts. Diverging applications on request.																		
	<table border="1"> <thead> <tr> <th>K</th> <th>n-op/y</th> <th>t-cycle</th> </tr> </thead> <tbody> <tr> <td>20 %</td> <td>525.800</td> <td>1,0 min</td> </tr> <tr> <td>40 %</td> <td>210.240</td> <td>2,5 min</td> </tr> <tr> <td>60 %</td> <td>75.067</td> <td>7,0 min</td> </tr> <tr> <td>80 %</td> <td>30.918</td> <td>17,0 min</td> </tr> <tr> <td>100 %</td> <td>12.223</td> <td>43,0 min</td> </tr> </tbody> </table>	K	n-op/y	t-cycle	20 %	525.800	1,0 min	40 %	210.240	2,5 min	60 %	75.067	7,0 min	80 %	30.918	17,0 min	100 %	12.223	43,0 min
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SFF	> 90																		
Hardware Error Tolerance	1																		
Demand rate	High continuously																		

Global Properties

Permanent light	PROTECT SELECT
Standards	EN 60204-1, EN 60947-5-1, EN 62061, ISO 13849-1, IEC 61508
Compliance with the Directives (Y/N) 	Yes
Climatic stress	EN 60068-2-1, EN 60068-2-2, EN 61496
Mounting	snaps onto standard DIN rail to EN 60715
Terminal designations	IEC/EN 60947-1, IEC 61131-2
Materials	
- Material of the housings	Polyamide / V0
- Material of the contacts	Tin
Weight	300
Start conditions	Automatic or Start button (Optional monitored)
Start input (Y/N)	Yes
Feedback circuit (Y/N)	Yes
Start-up test (Y/N)	Yes
Automatic reset function (Y/N)	Yes
Reset with edge detection (Y/N)	Yes

Mechanical data

Connection type	Screw connection
Cable section	
- Min. Cable section	0,25
- Max. Cable section	2.5
Pre-wired cable	rigid or flexible
Tightening torque for the terminals	0,6
Detachable terminals (Y/N)	Yes
Mechanical life	1.000.000 operations
Electrical lifetime	Derating curve available on request
resistance to shock	to IEC 60068-2-29
Resistance to vibration To EN 60068-2-6	to IEC 60068-2-6

Ambient conditions

Ambient temperature	
- Min. environmental temperature	-25
- Max. environmental temperature	+55
Storage and transport temperature	
- Min. Storage and transport temperature	-25

- Max. Storage and transport temperature	+75
Protection class	IP20
- Protection class-Enclosure	
- Protection class-Terminals	
- Protection class-Clearance	IP54
Air clearances and creepage distances To EN 50176	
- Rated impulse withstand voltage	0,8 / 4
- Overvoltage category	III
- Degree of pollution	2

Electromagnetic compatibility (EMC)

EMC rating	conforming to EMC Directive
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Electrical data

Cross circuit/short circuit recognition possible (Y/N)	Yes
Switch frequency	0,1
Operating current	500, plus Load current
Required rated short-circuit current To EN 60947-5-1	1000 A
Electronic protection (Y/N)	No
Device insulation	3 A slow blow
Supply voltage (stabilised PELV)	24 +/- 10

Inputs

Wire breakage detection (Y/N)	optional
Short-circuit recognition (Y/N)	optional
Earth connection detection (Y/N)	Yes
Switching thresholds	-3 ... 2 18 ... 28.8
Operating current	6 / 24
Input resistance	10

Outputs

Number of signalling outputs	bis 4
Signalling output	Y0 ... Y3
Design of control output	Limited short-circuit protection, p-type

Electrical data - Safety outputs

Fuse rating	4 A gL/gG D-fuse
Design of control output Q0/0N and Q1/1N	short-circuit proof, p-type / n-type
Design of control output Q2 and Q3	short-circuit proof, p-type
Residual current	< 2 at < 1
Operating current	0,1 A, ohmic
Test impulse width	typically 0,5 / 2
Test frequency	7.4

LED switching conditions display

LED switching conditions display (Y/N)	Yes
- Supply voltage	Yes

Miscellaneous data

Applications



Emergency-Stop button



Pull-wire emergency stop switches



Guard system



Safety sensor



Safety light curtain

Dimensions

Dimensions

- Width	52.5
- Height	100
- Depth	118

Keywords

Keywords PROTECT

Documents

Operating instructions and Declaration of conformity (pt) 1 MB, 20.02.2014

Code: mrl_protect-select_pt

Operating instructions and Declaration of conformity (pl) 1 MB, 15.10.2014

Code: mrl_protect-select_pl

Operating instructions and Declaration of conformity (it) 1 MB, 17.03.2014

Code: mrl_protect-select_it

Operating instructions and Declaration of conformity (en) 1 MB, 11.05.2016

Code: mrl_protect-select_en

Operating instructions and Declaration of conformity (de) 1 MB, 11.05.2016

Code: mrl_protect-select_de

Operating instructions and Declaration of conformity (nl) 1 MB, 17.03.2014

Code: mrl_protect-select_nl

Operating instructions and Declaration of conformity (jp) 1 MB, 17.03.2014

Code: mrl_protect-select_jp

Declaration of conformity (de) 366 kB, 01.12.2016

Code: KONFI_mrl_protect-select_de

Brochure (cs) 1 MB, 06.03.2012

Code: b_prsp02_cs

Brochure (pt) 6 MB, 18.11.2014

Code: b_prsp02_pt

Brochure (es) 5 MB, 24.09.2014

Code: b_prsp02_es

Brochure (fr) 6 MB, 18.11.2014

Code: b_prsp02_fr

Brochure (jp) 1 MB, 13.03.2013

Code: b_prsp02_jp

Brochure (de) 9 MB, 15.05.2014

Code: b_prsp02_de

Brochure (en) 6 MB, 09.07.2012

Code: b_prsp02_en

Brochure (it) 5 MB, 16.07.2014

Code: b_prsp02_it

TÜV certification (en, de) 235 kB, 15.11.2013

Code: z_prop01

CCC certification (cn) 1 MB, 14.03.2014

Code: q_prop01

CCC certification (en) 1 MB, 14.03.2014

Code: q_prop02

EAC certification (ru) 1 MB, 15.03.2018

Code: q_aesp01

Images

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The data and values have been checked thoroughly. Technical modifications and errors excepted.

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