SIEMENS

Product data sheet

SIRIUS SAFETY RELAY WITH AUXILIARY CONTACTOR RELEASE CIRCUIT (RC), DC 24V, 90.0MM, SCREW TERMINAL, RC INSTANT.: 2S, RC DELAYED: 0, MC: 1NC, AUTOSTART / MONITORED START, BASIC DEVICE, MAX. ACHIEVABLE SIL: 2, PL: D

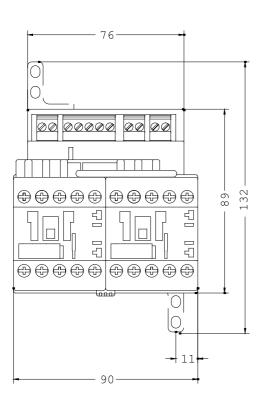
General technical details:		
product brand name		SIRIUS
product designation		safety relays
Design of the product		for EMERGENCY-STOP units
protection class IP / of the housing		IP20
Protection class IP / of the terminal		IP20
Protection against electrical shock		finger-safe
Insulation voltage / rated value	V	690
Ambient temperature		
during storage	°C	-40 +80
during operating	°C	-25 +60
Air pressure		
according to SN 31205	kPa	90 106
Relative humidity		
• during operating phase	%	10 95
Installation altitude / at a height over sea level / maximum	m	2,000
Resistance against vibration / according to IEC 60068-2-6		5 500 Hz: 0,075 mm
Resistance against shock		5g / 11 ms
Impulse voltage resistance / rated value	V	6,000
EMC emitted interference		IEC 60947-5-1, IEC 60000-4-3, IEC 60000-4-5, IEC 60000-4-6
Installation environment relating to EMC		This product is suitable for Class A environments only. It can cause undesired radio-frequency interference in residential environments. If this is the case, the user must take appropriate measures.
Item designation		
 according to DIN 40719 extendable after IEC 204-2 / according to IEC 750 		КТ
according to DIN EN 61346-2		F
Contact reliability		one incorrect switching operation of 100 million switching operations (17 V, 5 mA)

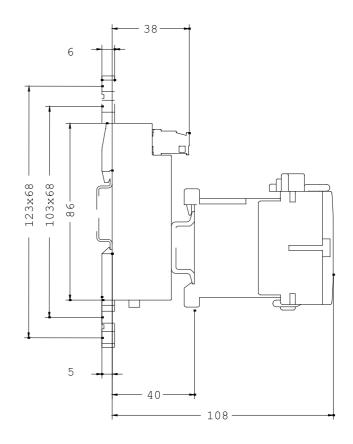
	-	
Number of sensor inputs		
1-channel or 2-channel	-	1
Design of the cascading		none
Type of the safety-related wiring / of the inputs	-	single-channel and two-channel
Product feature / transverse contact-secure		Yes
Safety Integrity Level (SIL)		
according to IEC 61508	_	SIL2
SIL claim limit (for a subsystem) / according to EN 62061		2
Performance Level (PL)		
according to ISO 13849-1		d
Category / according to EN 954-1		3
Category / according to ISO 13849-1		3
Hardware fault tolerance / according to IEC 61508		1
Safety device type / according to IEC 61508-2		Туре В
Probability of dangerous failure per hour (PFHD) / with high demand rate / according to EN 62061	1/h	0.11E-7
T1 value / for proof test interval or service life / according to IEC 61508	а	20
Number of outputs / as contact-affected switching element		
 as NC contact / for reporting function / instantaneous switching 		1
 as NO contact / safety-related / instantaneous switching 		2
as NO contact / safety-related / delayed switching		0
Number of outputs / as contact-less semiconductor switching element		
• safety-related		
delayed switching		0
• non-delayed		0
for reporting function		
delayed switching		0
• non-delayed		0
Stop category / according to DIN EN 60204-1		0
General technical details:		
Design of the input		
 cascading-input/functional switching 		No
feedback input		Yes
• start input		Yes
Design of the electrical connection / jumper socket		Yes
Operating cycles / maximum	1/h	1,000
Switching capacity current		
of NO contacts of relay outputs		

• at DC-13		
• at 24 V	А	10
• at 115 V	А	1
• at 230 V	А	0.3
• at AC-15		
• at 115 V	А	6
• at 230 V	А	6
 of NC contacts of relay outputs 		
• at DC-13		
• at 24 V	А	10
• at 115 V	А	1
• at 230 V	А	0.3
• at AC-15		
• at 115 V	А	6
• at 230 V	А	6
Mechanical operating cycles as operating time / typical	-	30,000,000
Max. permissible voltage for safe isolation / between electronic evaluation device and enabling circuit / according to EN 60947-1	V	400
Design of the fuse link / for short-circuit protection of the NO contacts of the relay outputs / required	-	gL/gG: 10 A
Resistance to direct current / of the cable / maximum	Ω	250
Cable length / between sensor and electronic evaluation device / with Cu 1.5 mm ² and 150 nF/km / maximum	m	2,000
Make time / with automatic start	-	
• typical	ms	100
• for DC / maximum	ms	200
Make time / with automatic start / after mains power cut	-	
• typical	ms	350
• maximum	ms	500
Make time / with monitored start		
• maximum	ms	100
• typical	ms	60
Backslide delay time / after opening of the safety circuits / typical	ms	30
Backslide delay time / at mains power cut		
• typical	ms	100
• maximum	ms	120
Recovery time / after opening of the safety circuits / typical	ms	20
Recovery time / after mains power cut / typical	s	0.02
Recovery time / after mains power cut / typical Pulse duration	S	0.02
	s	0.02 20

a of the according optropoly / minimum	•	0.02
of the cascading-entrance / minimum	S	0.02
Control circuit:		
Type of voltage / of the controlled supply voltage		DC
Control supply voltage / 1 / for DC / rated value	V	24
operating range factor control supply voltage rated value / of the magnet coil		
• for DC		0.85 1.1
Auxiliary circuit:		
Contact reliability / of the auxiliary contacts		< 1 error per 100 million operating cycles
Installation/mounting/dimensions:		
mounting position		any
Type of mounting		screw and snap-on mounting
Width	mm	90
Height	mm	132
Depth	mm	108
Connections:		
Design of the electrical connection		screw-type terminals
Type of the connectable conductor cross-section		
• solid		1x (0.2 2.5 mm²), 2x (0.2 1.0 mm²)
• finely stranded		
with wire end processing		1x (0.25 2.5 mm²), 2x (0.25 1.0 mm²)
Type of the connectable conductor cross-section / for AWG conductors		
• solid		2x (24 18)
• stranded		2x (24 18)
Product Function:		
Product function		
light barrier monitoring		No
standstill monitoring		No
protective door monitoring		Yes
• automatic start		Yes
 magnetic switch monitoring Normally closed contact-Normally open contact 		No
rotation speed monitoring		No
laser scanner monitoring		No
monitored start-up		Yes
light grid monitoring		No

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