

SIRIUS SAFETY RELAY WITH RELAY RELEASE CIRCUITS (RC),  
DC 24V, 45.0MM, SPRING-LOADED TERMINAL,  
RC INSTANT.: 2S, 2OE, RC DELAYED: 0,  
MK: 0, PRESS CONTROL UNIT,  
MAX. ACHIEVABLE SIL: 3, PL: E

**General technical details:**

<b>product brand name</b>		SIRIUS
<b>Product designation</b>		safety relays
<b>Design of the product</b>		for press control units
<b>protection type IP / of the enclosure</b>		IP20
<b>Protection class IP / of the terminal</b>		IP20
<b>Protection against electrical shock</b>		finger-safe
<b>Insulation voltage / rated value</b>	V	300
<b>Ambient temperature</b>		
• during storage	°C	-40 ... +80
• during operating	°C	-25 ... +60
<b>Air pressure</b>		
• according to SN 31205	kPa	90 ... 106
<b>Relative humidity</b>		
• during operating phase	%	10 ... 95
<b>Installation altitude / at a height over sea level / maximum</b>	m	2,000
<b>Resistance against vibration / according to IEC 60068-2-6</b>		5 ... 500 Hz: 0,075 mm
<b>Resistance against shock</b>		8g / 10 ms
<b>Impulse voltage resistance / rated value</b>	V	4,000
<b>EMC emitted interference</b>		EN 60947-5-1
<b>Installation environment relating to EMC</b>		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.
<b>Reference code</b>		
• according to DIN 40719 extended according to IEC 204-2 / according to IEC 750		KT
• according to DIN EN 61346-2		F
<b>Number of sensor inputs</b>		
• 2-channel		1
<b>Design of the cascading</b>		none

Type of the safety-related wiring / of the inputs		two-channel
Product feature / transverse contact-secure		Yes
Safety Integrity Level (SIL) • according to IEC 61508		SIL3
SIL claim limit (for a subsystem) / according to EN 62061		3
Performance Level (PL) • according to EN ISO 13849-1		e
Category / according to EN 954-1		4
Category / according to EN ISO 13849-1		4
Hardware fault tolerance / according to IEC 61508		1
Safety device type / according to IEC 61508-2		Type A
PFHD / with high demand rate / according to EN 62061	1/h	0.14E-8
T1 value / for proof test interval or service life / according to IEC 61508	a	20
Number of outputs / as contact-affected switching element • as NC contact / for reporting function / instantaneous switching • as NO contact / safety-related / instantaneous switching • as NO contact / safety-related / delayed switching		0 4 0
Number of outputs / as contact-less semiconductor switching element • safety-related • delayed switching • non-delayed • for reporting function • delayed switching • non-delayed		0 0 0 0 0
Stop category / according to DIN EN 60204-1		0

#### General technical details:

Design of the input • cascading-input/functional switching • feedback input • start input		No Yes No
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 • at 115 V • at 230 V	A A A	6 0.2 0.1

<ul style="list-style-type: none"> <li>• at AC-15 <ul style="list-style-type: none"> <li>• at 115 V</li> <li>• at 230 V</li> </ul> </li> <li>• of NC contacts of relay outputs <ul style="list-style-type: none"> <li>• at DC-13 <ul style="list-style-type: none"> <li>• at 24 V</li> <li>• at 115 V</li> <li>• at 230 V</li> </ul> </li> <li>• at AC-15 <ul style="list-style-type: none"> <li>• at 115 V</li> <li>• at 230 V</li> </ul> </li> </ul> </li> </ul>	A	5
	A	5
	A	6
	A	0.2
	A	0.1
	A	5
	A	5
<b>Thermal current / of the contact-affected switching element / maximum</b>	A	6
<b>Electrical operating cycles as operating time / typical</b>		100,000
<b>Mechanical operating cycles as operating time / typical</b>		10,000,000
<b>Design of the fuse link / for short-circuit protection of the NO contacts of the relay outputs / required</b>		gL/gG: 6 A, or quick: 10 A
<b>Resistance to direct current / of the cable / maximum</b>	Ω	30
<b>Cable length / between sensor and electronic evaluation device / with Cu 1.5 mm<sup>2</sup> and 150 nF/km / maximum</b>	m	1,000
<b>Make time / with automatic start</b>		
<ul style="list-style-type: none"> <li>• for DC / maximum</li> </ul>	ms	100
<b>Recovery time / after opening of the safety circuits / typical</b>	ms	250

#### Control circuit:

<b>Voltage type / of control feed voltage</b>		DC
<b>Control supply voltage / 1 / for DC / rated value</b>	V	24
<b>operating range factor control supply voltage rated value / of the magnet coil</b>		
<ul style="list-style-type: none"> <li>• at 50 Hz <ul style="list-style-type: none"> <li>• for AC</li> </ul> </li> <li>• at 60 Hz <ul style="list-style-type: none"> <li>• for AC</li> </ul> </li> <li>• for DC</li> </ul>		0.85 ... 1.1
		0.85 ... 1.1
		0.85 ... 1.1

#### Installation/mounting/dimensions:

<b>mounting position</b>		any
<b>Mounting type</b>		screw and snap-on mounting
<b>Width</b>	mm	45
<b>Height</b>	mm	138.5
<b>Depth</b>	mm	120

## Connections:

<b>Design of the electrical connection</b>	spring-loaded terminals
<b>Type of the connectable conductor cross-section</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	2x (0.25 ... 1.5 mm <sup>2</sup> )
<ul style="list-style-type: none"> <li>• finely stranded                             <ul style="list-style-type: none"> <li>• with wire end processing</li> <li>• without wire end processing</li> </ul> </li> </ul>	2 x (0.25 ... 1.5 mm <sup>2</sup> ) 2x (0.25 ... 1.5 mm <sup>2</sup> )
<b>Type of the connectable conductor cross-sections / for AWG conductors</b>	
<ul style="list-style-type: none"> <li>• solid</li> </ul>	2x (24 ... 16)
<ul style="list-style-type: none"> <li>• stranded</li> </ul>	2x (24 ... 16)

## Product Function:

<b>Product function</b>	
<ul style="list-style-type: none"> <li>• light barrier monitoring</li> <li>• standstill monitoring</li> <li>• protective door monitoring</li> <li>• automatic start</li> <li>• magnetic switch monitoring Normally closed contact-Normally open contact</li> <li>• rotation speed monitoring</li> <li>• laser scanner monitoring</li> <li>• monitored start-up</li> <li>• light grid monitoring</li> <li>• magnetic switch monitoring Normally closed contact-Normally closed contact</li> <li>• emergency stop function</li> <li>• step mat monitoring</li> </ul>	No No No No No No No No No No No No
<b>Suitability for interaction / pressing control</b>	Yes
<b>Acceptability for application</b>	
<ul style="list-style-type: none"> <li>• monitoring of floating sensors</li> <li>• monitoring of non-floating sensors</li> <li>• safety cut-out switch</li> <li>• position switch monitoring</li> <li>• EMERGENCY-OFF circuit monitoring</li> <li>• valve monitoring</li> <li>• tactile sensor monitoring</li> <li>• magnetically operated switches monitoring</li> <li>• safety-related circuits</li> </ul>	Yes No Yes Yes No No No No No Yes

## Certificates/approvals:

<b>Verification of suitability</b>		BG, SUVA, UL, CSA, EN 60204-1, EN ISO 12100, EN 954-1, IEC 61508, EN 574
• TÜV (German technical inspectorate) certificate		Yes
• UL-registration		Yes
• BG BIA certificate		Yes

<b>General Product Approval</b>	<b>EMC</b>	<b>Functional Safety / Safety of Machinery</b>
---------------------------------	------------	--



<b>Declaration of Conformity</b>	<b>Test Certificates</b>	<b>other</b>	
----------------------------------	--------------------------	--------------	--



[Special Test Certificate](#)

[Confirmation](#)

[Environmental Confirmations](#)

**Further information:**

**Information- and Downloadcenter (Catalogs, Brochures,...)**

<http://www.siemens.com/industrial-controls/catalogs>

**Industry Mall (Online ordering system)**

<http://www.siemens.com/industrial-controls/mall>

**Cax online generator:**

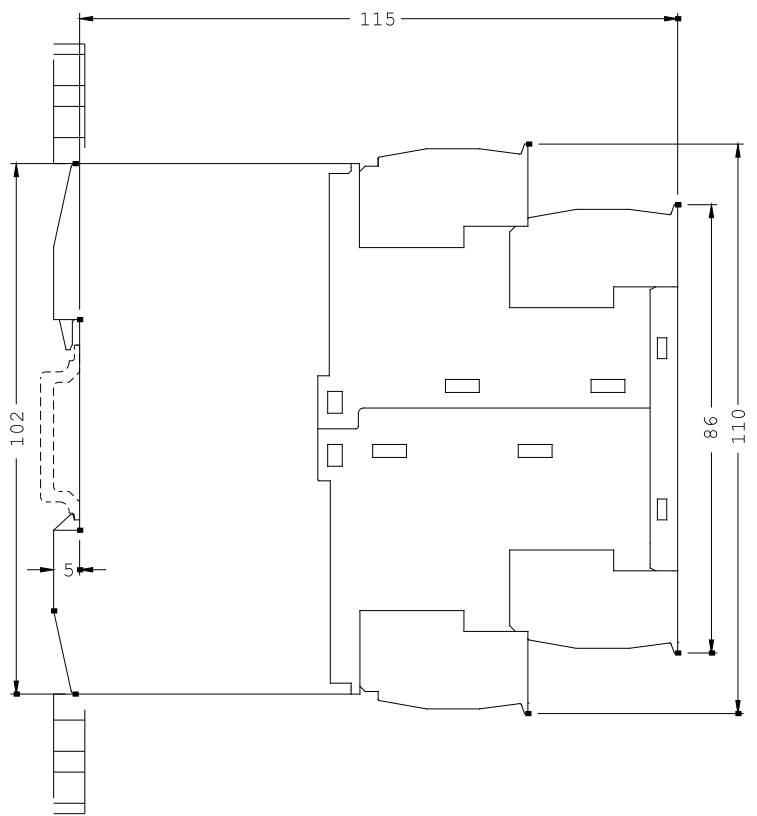
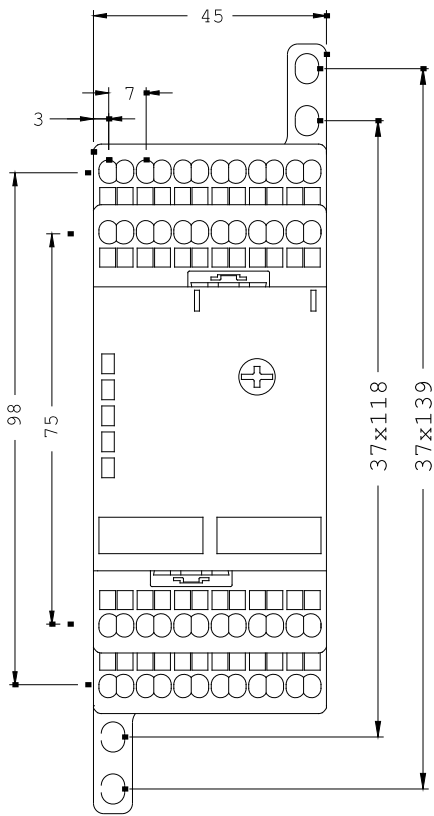
<http://www.siemens.com/cax>

**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<http://support.automation.siemens.com/WW/view/en/3TK2834-2BB40/all>

**Image database (product images, 2D dimension drawings, 3D models, device circuit diagrams, ...)**

[http://www.automation.siemens.com/bilddb/cax\\_en.aspx?mlfb=3TK2834-2BB40](http://www.automation.siemens.com/bilddb/cax_en.aspx?mlfb=3TK2834-2BB40)



last change:

Jul 28, 2014