

!!! Phased-out product !!! The preferred successor is 3SK; SIRIUS safety relay with relay enabling circuits (EC) 24 V DC, 45 mm Spring-type terminal EC instantaneous: 2 NO + 2 NC EC delayed: 0 SC: 0 Press control device maximum achieved SIL: 3, PL: e

product brand name	SIRIUS
product designation	safety relays
design of the product	for press control units
General technical data	
protection class IP of the enclosure	IP20
protection class IP of the terminal	IP20
touch protection against electrical shock	finger-safe
insulation voltage rated value	300 V
ambient temperature	
• during storage	-40 ... +80 °C
• during operation	-25 ... +60 °C
air pressure according to SN 31205	90 ... 106 kPa
relative humidity during operation	10 ... 95 %
installation altitude at height above sea level maximum	2 000 m
vibration resistance according to IEC 60068-2-6	5 ... 500 Hz: 0,075 mm
shock resistance	8g / 10 ms
surge voltage resistance rated value	4 000 V
EMC emitted interference	EN 60947-5-1
installation environment regarding EMC	This product is suitable for Class A environments only. In household environments, this device can cause unwanted radio interference. The user is required to implement appropriate measures in this case.
reference code according to DIN 40719 extended	KT
according to IEC 204-2 according to IEC 750	
reference code according to EN 61346-2	F
number of sensor inputs	
• 2-channel	1
design of the cascading	none
type of the safety-related wiring of the inputs	two-channel
product feature cross-circuit-proof	Yes
Safety Integrity Level (SIL)	
• according to IEC 61508	3
SIL Claim Limit (subsystem) according to EN 62061	3
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	0.0000000014 1/h
T1 value for proof test interval or service life according to IEC 61508	20 y
number of outputs as contact-affected switching element	
• as NC contact	
— for signaling function instantaneous contact	0

- as NO contact
  - safety-related instantaneous contact
  - safety-related delayed switching
- number of outputs as contact-less semiconductor switching element**
- safety-related
  - delayed switching
  - instantaneous contact
- for signaling function
  - delayed switching
  - instantaneous contact
- stop category according to EN 60204-1**

4  
0  
  
0  
0  
  
0  
0  
0

#### Inputs

##### design of input

- cascading input/functional switching
- feedback input
- start input

No  
Yes  
No

#### Outputs

##### type of electrical connection plug-in socket

Yes

##### operating frequency maximum

1 000 1/h

##### switching capacity current

###### • of the NO contacts of the relay outputs at DC-13

- at 24 V
- at 115 V
- at 230 V

6 A  
0.2 A  
0.1 A

###### • of the NO contacts of the relay outputs at AC-15

- at 115 V
- at 230 V

5 A  
5 A

###### • of the NC contacts of the relay outputs at DC-13

- at 24 V
- at 115 V
- at 230 V

6 A  
0.2 A  
0.1 A

###### • of the NC contacts of the relay outputs at AC-15

- at 115 V
- at 230 V

5 A  
5 A

##### thermal current of the switching element with contacts maximum

6 A

##### electrical endurance (operating cycles) typical

100 000

##### mechanical service life (operating cycles) typical

10 000 000

##### design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required

gL/gG: 6 A, or quick: 10 A

##### DC resistance of the cable maximum

30 Ω

##### wire length between sensor and electronics

1 000 m

##### evaluation device with Cu 1.5 mm<sup>2</sup> and 150 nF/km maximum

#### Times

##### make time with automatic start

- at DC maximum

100 ms

##### recovery time after opening of the safety circuits typical

250 ms

#### Control circuit/ Control

##### type of voltage of the control supply voltage

DC

##### control supply voltage 1

- at DC rated value

24 V

##### operating range factor control supply voltage rated value of magnet coil

- at AC

- at 50 Hz
- at 60 Hz

0.85 ... 1.1  
0.85 ... 1.1

- at DC

0.85 ... 1.1

#### Installation/ mounting/ dimensions

##### mounting position

any

##### fastening method

screw and snap-on mounting

##### width

45 mm

height	138.5 mm		
depth	120 mm		
Connections/ Terminals			
type of electrical connection	spring-loaded terminals		
type of connectable conductor cross-sections			
<ul style="list-style-type: none"><li>• solid</li></ul>	2x (0.25 ... 1.5 mm²)		
<ul style="list-style-type: none"><li>• finely stranded</li><li>— with core end processing</li><li>— without core end processing</li></ul>	2 x (0.25 ... 1.5 mm²) 2x (0.25 ... 1.5 mm²)		
type of connectable conductor cross-sections at AWG cables			
<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			
product function			
<ul style="list-style-type: none"><li>• light barrier monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• standstill monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• protective door monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• automatic start</li></ul>	No		
<ul style="list-style-type: none"><li>• magnetically operated switch monitoring NC-NO</li></ul>	No		
<ul style="list-style-type: none"><li>• rotation speed monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• laser scanner monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• monitored start-up</li></ul>	No		
<ul style="list-style-type: none"><li>• light array monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• magnetically operated switch monitoring NC-NC</li></ul>	No		
<ul style="list-style-type: none"><li>• EMERGENCY OFF function</li></ul>	No		
<ul style="list-style-type: none"><li>• pressure-sensitive mat monitoring</li></ul>	No		
suitability for interaction press control	Yes		
suitability for use			
<ul style="list-style-type: none"><li>• monitoring of floating sensors</li></ul>	Yes		
<ul style="list-style-type: none"><li>• monitoring of non-floating sensors</li></ul>	No		
<ul style="list-style-type: none"><li>• safety switch</li></ul>	Yes		
<ul style="list-style-type: none"><li>• position switch monitoring</li></ul>	Yes		
<ul style="list-style-type: none"><li>• EMERGENCY-OFF circuit monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• valve monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• tactile sensor monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• magnetically operated switch monitoring</li></ul>	No		
<ul style="list-style-type: none"><li>• safety-related circuits</li></ul>	Yes		
Certificates/ approvals			
certificate of suitability	BG, SUVA, UL, CSA, EN 60204-1, EN ISO 12100, EN 954-1, IEC 61508, EN 574		
<ul style="list-style-type: none"><li>• TÜV (German technical inspectorate) certificate</li></ul>	Yes		
<ul style="list-style-type: none"><li>• UL approval</li></ul>	Yes		
<ul style="list-style-type: none"><li>• BG BIA approval</li></ul>	Yes		
General Product Approval		EMC	Functional Safety/Safety of Machinery



[Type Examination Certificate](#)

Test Certificates	other
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[Special Test Certificate](#)

[Confirmation](#)

#### Further information

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

<https://www.siemens.com/ic10>

Industry Mall (Online ordering system)

<https://mall.industry.siemens.com/mall/en/en/Catalog/product?mlfb=3TK2834-2BB40>

Cax online generator

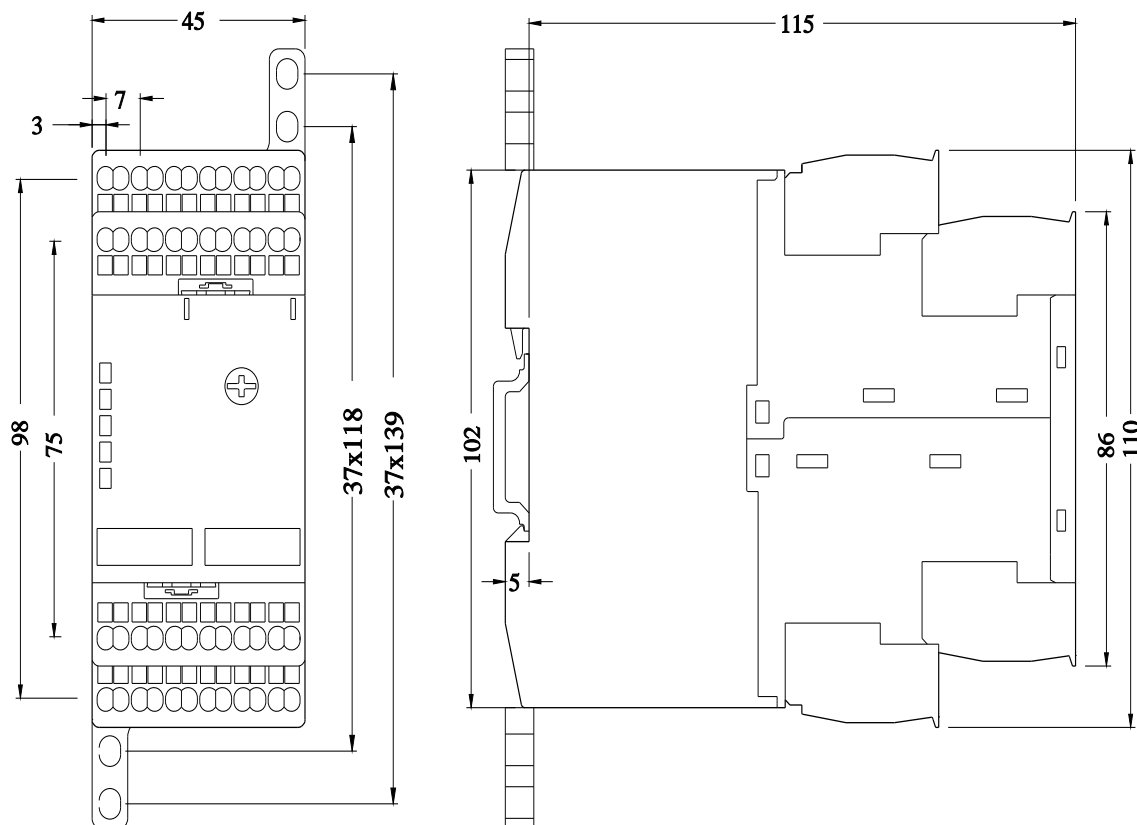
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TK2834-2BB40>

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

<https://support.industry.siemens.com/cs/ww/en/ps/3TK2834-2BB40>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TK2834-2BB40&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TK2834-2BB40&lang=en)



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