








SIRIUS safety relay safety-oriented Standstill monitoring 400 V AC, 45 mm  
Spring-type terminal EC instantaneous: 3 NO + 1 NC EC delayed: 0 SC: 3  
Auto-start Basic unit max. error category EN 954-1: 4 Maximum achievable  
PL according to EN 13849-1: Maximum achievable SIL according to IEC  
61508: 3

product brand name	SIRIUS
product designation	Standstill monitor
design of the product	for safe stoppage monitoring
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	690 V
ambient temperature	
• during storage	-40 ... +75 °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	10 ... 55 Hz: 0.35 mm
shock resistance	8g / 10 ms
surge voltage resistance rated value	6 000 V
EMC emitted interference	IEC 61000-6-2, IEC 61000-6-3
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	
• 1-channel or 2-channel	1
design of the cascading	none
type of the safety-related wiring of the inputs	measuring inputs
product feature cross-circuit-proof	No
Safety Integrity Level (SIL)	
• according to IEC 61508	3
• according to IEC 62061	3
• for delayed release circuit according to IEC 61508	SIL3
SIL Claim Limit (subsystem) according to EN 62061	3
performance level (PL)	
• according to ISO 13849-1	e
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 B
PFHD with high demand rate according to EN 62061	1.5E-9 1/h
Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508	0.002 1/y

<b>T1 value for proof test interval or service life according to IEC 61508</b>	20 a
<b>number of outputs as contact-affected switching element</b>	
• as NC contact	
— for signaling function instantaneous contact	2
• as NO contact	
— safety-related instantaneous contact	4
— safety-related delayed switching	0
<b>number of outputs as contact-less semiconductor switching element</b>	
• safety-related	
— delayed switching	0
— instantaneous contact	0
• for signaling function	
— delayed switching	0
— instantaneous contact	2
<b>stop category according to EN 60204-1</b>	0
<b>Inputs</b>	
<b>design of input</b>	
• cascading input/functional switching	No
• feedback input	Yes
• start input	No
<b>voltage measuring range at the measurement inputs at AC</b>	
• according to UL maximum	600 V
• maximum	690 V
<b>input resistance at the measurement inputs</b>	500 kΩ
<b>adjustable response value voltage for standstill detection</b>	20 ... 400 mV
<b>Outputs</b>	
<b>type of electrical connection plug-in socket</b>	Yes
<b>operating frequency maximum</b>	1 200 1/h
<b>switching capacity current</b>	
• of semiconductor outputs	
— for signaling function at DC-13 at 24 V	0.1 A
• of the NO contacts of the relay outputs at DC-13	
— at 24 V	2 A
• of the NO contacts of the relay outputs at AC-15	
— at 115 V	3 A
— at 230 V	3 A
• of the NC contacts of the relay outputs at DC-13	
— at 24 V	2 A
• of the NC contacts of the relay outputs at AC-15	
— at 115 V	2 A
— at 230 V	2 A
<b>thermal current of the switching element with contacts maximum</b>	5 A
<b>electrical endurance (operating cycles) typical</b>	200 000
<b>mechanical service life (operating cycles) typical</b>	50 000 000
<b>design of the fuse link for short-circuit protection of the NO contacts of the relay outputs required</b>	quick: 5 A
<b>Times</b>	
<b>adjustable downtime</b>	0.2 ... 6 s
<b>Control circuit/ Control</b>	
<b>type of voltage of the control supply voltage</b>	AC
<b>control supply voltage frequency</b>	
• 1 rated value	50 Hz
• 2 rated value	60 Hz
<b>control supply voltage 1 at AC</b>	
• at 50 Hz rated value	400 V
• at 60 Hz rated value	400 V
<b>operating range factor control supply voltage rated value of magnet coil</b>	

<ul style="list-style-type: none"><li>• at AC<ul style="list-style-type: none"><li>— at 50 Hz</li><li>— at 60 Hz</li></ul></li></ul>	0.8 ... 1.1 0.8 ... 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<ul style="list-style-type: none"><li>— with core end processing</li><li>— without core end processing</li></ul></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 (20 ... 16)		
Product Function			
product function			
<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>• magnetically operated switch monitoring NC-NO</li><li>• rotation speed monitoring</li><li>• laser scanner monitoring</li><li>• monitored start-up</li><li>• light array monitoring</li><li>• magnetically operated switch monitoring NC-NC</li><li>• EMERGENCY OFF function</li><li>• pressure-sensitive mat monitoring</li></ul>	No Yes No No No No No No No No No No		
suitability for interaction press control	No		
suitability for use			
<ul style="list-style-type: none"><li>• safety 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 switch monitoring</li><li>• safety-related circuits</li></ul>	Yes No No No No No Yes		
Certificates/ approvals			
certificate of suitability	UL, CSA, EN 60204-1, EN ISO 12100, EN 954-1, IEC 61508		
<ul style="list-style-type: none"><li>• TÜV (German technical inspectorate) certificate</li><li>• UL approval</li><li>• BG BIA approval</li></ul>	Yes Yes Yes		
General Product Approval		Functional Safety/Safety of Machinery	Declaration of Conformity
			
		<a href="#">Type Examination Certificate</a>	
		EG-Konf.	
Declaration of Conformity	Test Certificates	other	Railway

#### Further information

**Siemens has decided to exit the Russian market (see here).**

<https://press.siemens.com/global/en/pressrelease/siemens-wind-down-russian-business>

**Siemens is working on the renewal of the current EAC certificates.**

Please contact your local Siemens office on the status of validity of the EAC certification if you intend to import or offer to supply these products to an EAC relevant market (other than the sanctioned EAEU member states Russia or Belarus).

**Information on the packaging**

<https://support.industry.siemens.com/cs/ww/en/view/109813875>

**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=3TK2810-0JA02>

**Cax online generator**

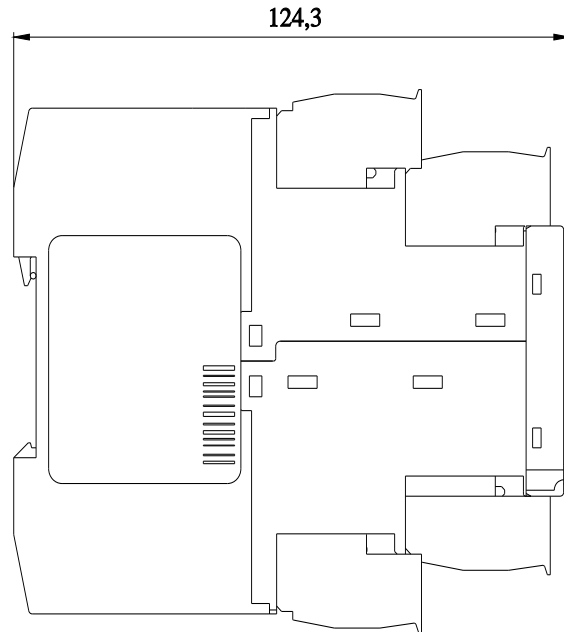
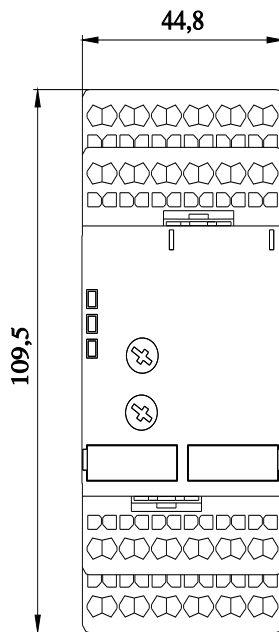
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3TK2810-0JA02>

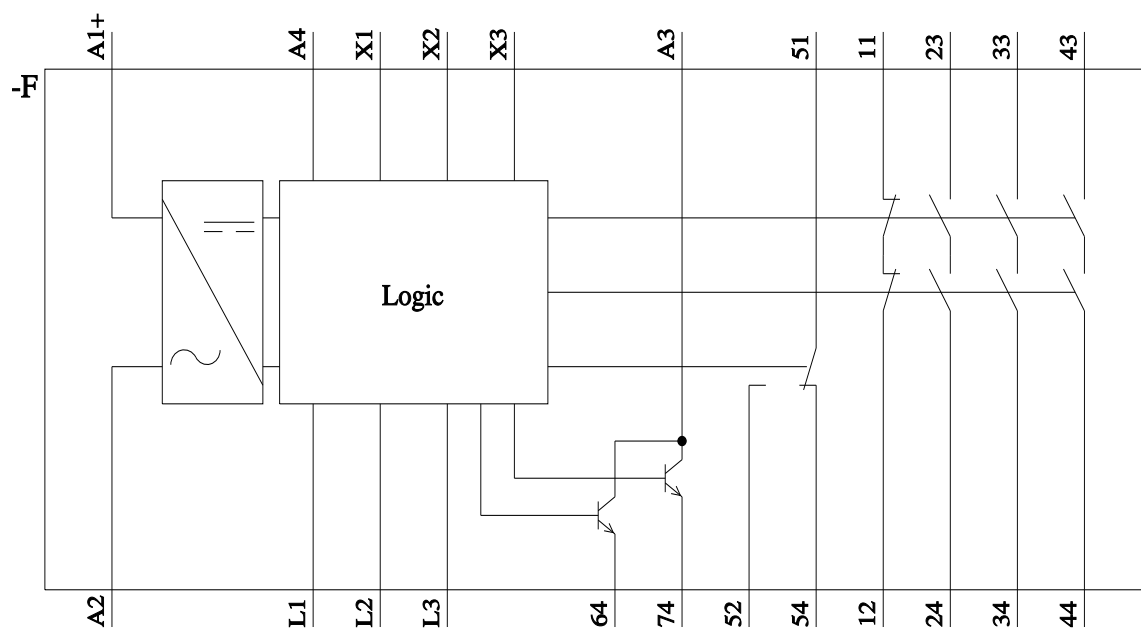
**Service&Support (Manuals, Certificates, Characteristics, FAQs,...)**

<https://support.industry.siemens.com/cs/ww/en/ps/3TK2810-0JA02>

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

[http://www.automation.siemens.com/bilddb/cax\\_de.aspx?mlfb=3TK2810-0JA02&lang=en](http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3TK2810-0JA02&lang=en)





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