



Figure similar

SIRIUS SAFETY RELAY ADVANCED EXPANSION UNIT INPUT
EXTENSION FOR ONE ADDITIONAL 2-CHANNEL OR TWO 1-
CHANNEL SENSORS US = 24 V DC SCREW CONNECTION

General technical data:	
product brand name	SIRIUS
Product designation	safety relays
Design of the product	Expansion unit
Protection class IP of the enclosure	IP20
Protection against electrical shock	finger-safe
Insulation voltage Rated value	50 V
Ambient temperature	
• during storage	-40 ... +80 °C
• during operation	-25 ... +60 °C
Air pressure acc. 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 acc. to IEC 60068-2-6	5 ... 500 Hz: 0,75 mm
Shock resistance	10g / 11 ms
Surge voltage resistance Rated value	800 V
EMC emitted interference	IEC 60947-5-1, Class A
Installation environment regarding 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.
Overvoltage category	Installation category III
Degree of pollution	3
Equipment marking acc. to DIN EN 61346-2	F
Number of sensor inputs 1-channel or 2-channel	1

Type of the safety-related wiring of the inputs	single-channel and two-channel
Product property cross-circuit-proof	Yes
Safety Integrity Level (SIL) acc. to IEC 61508	SIL3
Performance level (PL) acc. to EN ISO 13849-1	e
Category acc. to EN ISO 13849-1	4
PFHD with high demand rate acc. to EN 62061	0.000000001 1/h
Average probability of failure on demand (PFDavg) with low demand rate acc. to IEC 61508	0.000007 1/y
T1 value for proof test interval or service life acc. to IEC 61508	20 y
Hardware fault tolerance acc. to IEC 61508	1
Safety device type acc. to IEC 61508-2	Type B
Number of outputs as contact-affected switching element	
• as NC contact	
— for signaling function instantaneous contact	0
— for signaling function delayed switching	0
— safety-related instantaneous contact	0
— safety-related delayed switching	0
• as NO contact	
— for signaling function instantaneous contact	0
— for signaling function delayed switching	0
— safety-related instantaneous contact	0
— safety-related delayed switching	0
Stop category acc. to DIN EN 60204-1	0

General technical data:

Design of input Start input	Yes
Type of electrical connection Plug-in socket	No
Cable length between sensor and electronic evaluation device with Cu 1.5 mm ² and 150 nF/km maximum	4 000 m
Make time with automatic start	
• typical	60 ms
• for DC maximum	60 ms
Make time with automatic start after power failure	
• typical	6 500 ms
• maximum	6 500 ms
Make time with monitored start	
• maximum	60 ms
• typical	60 ms

Backslide delay time after opening of the safety circuits typical	40 ms
Recovery time after opening of the safety circuits typical	30 ms
Pulse duration	
• of the sensor input minimum	60 ms
• of the ON pushbutton input minimum	0.15 s

Control circuit/ Control:

Type of voltage of the control supply voltage	DC
Control supply voltage	
• for DC	
— Rated value	24 V
Operating range factor control supply voltage rated value of the magnet coil	
• for DC	0.8 ... 1.2
Active power loss typical	1.2 W

Installation/ mounting/ dimensions:

mounting position	any
Required spacing for grounded parts at the side	5 mm
Required spacing with side-by-side mounting at the side	0 mm
Mounting type	screw and snap-on mounting
Width	17.5 mm
Height	100 mm
Depth	121.6 mm

Connections/ Terminals:

Type of electrical connection	screw-type terminals
Type of connectable conductor cross-section	
• solid	1x (0.5 ... 2.5 mm²), 2x (1.0 ... 1.5 mm²)
• finely stranded	
— with core end processing	1x (0.5 ... 2.5 mm²), 2x (0.5 ... 1.0 mm²)
Type of connectable conductor cross-section for AWG conductors	
• solid	1x (20 ... 14), 2x (18 ... 16)

Product Function:

Product function parameterizable	Sensor floating / sensor non-floating, monitored start / autostart, 1-channel / 2-channel sensor connection, cross-circuit detection, startup testing, antivalent sensors, 2-hand switches
Suitability for operation Device connector 3ZY12	Yes
Suitability for interaction press control	No
Suitability for use	
• safety switch	Yes

- Monitoring of floating sensors
- Monitoring of non-floating sensors
- magnetically operated switch monitoring
- safety-related circuits

Yes
Yes
Yes
Yes

Certificates/ approvals:

Certificate of suitability

- TÜV (German technical inspectorate) certificate
- UL approval

Yes
Yes

General Product Approval	EMC	Functional Safety/Safety of Machinery	Declaration of Conformity
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[Type Examination](#)



Test Certificates	other
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[Type Test Certificates/Test Report](#)

[Confirmation](#)

Further information

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

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

Industry Mall (Online ordering system)

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

Cax online generator

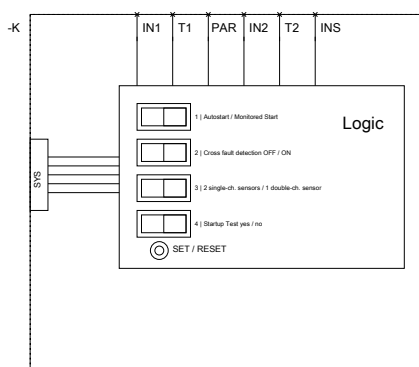
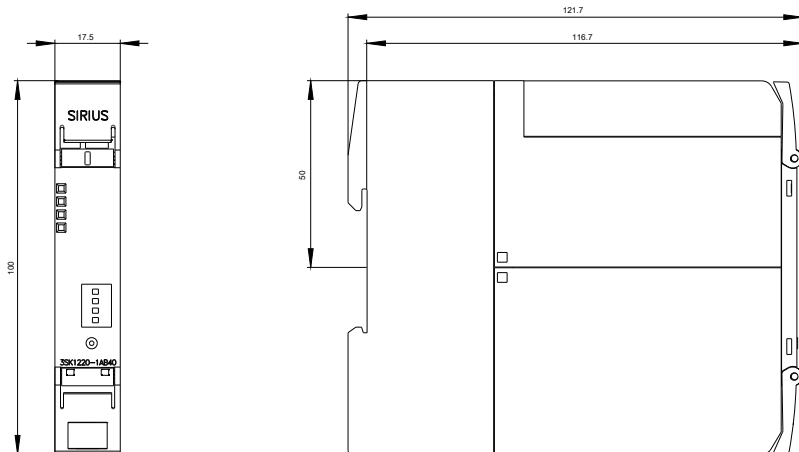
<http://support.automation.siemens.com/WW/CAXorder/default.aspx?lang=en&mlfb=3SK12201AB40>

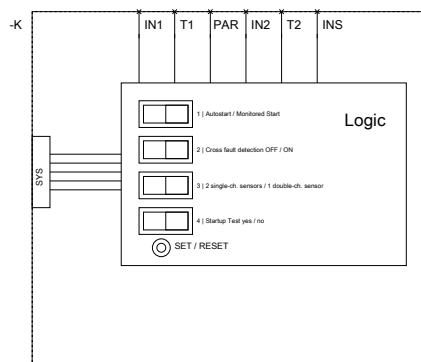
Service&Support (Manuals, Certificates, Characteristics, FAQs,...)

<https://support.industry.siemens.com/cs/ww/en/ps/3SK12201AB40>

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

http://www.automation.siemens.com/bilddb/cax_de.aspx?mlfb=3SK12201AB40&lang=en





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