



## Contact extension 24V AC/DC




Powering Business Worldwide™

**Part no.** ESR5-NE-51-24VAC-DC  
**Article no.** 118707

**Catalog No.**

### Delivery programme

Product range			Elektronische Sicherheitsrelais
Basic function			Contact expansions
besondere Produktmerkmale			Basisisolierung
Betrieb			einkanalig
Supply voltage	U <sub>s</sub>		24 V DC 24 V AC, 50/60 Hz
Basic function			Contact expansion
Approval			
suitable for applications to			Cat. 4 PL e according to EN ISO 13849-1 SILCL 3 according to IEC 62061 SIL 3 according to IEC 61508
Anzahl Freigabepfade nach EN 60204-1 Kategorie der Stopp-Funktionen			
Enable current paths to IEC/EN 60204-1 Stop category 0			5
Signal current paths			1
<b>Instructions</b>			The base unit determines the maximum stop category according to IEC 61508 and IEC 60204.

### Approvals

Product Standards  
 UL File No.  
 UL Category Control No.  
 CSA File No.  
 CSA Class No.  
 North America Certification  
 Degree of Protection

IEC/EN see Technical Data; UL 508; CSA-C22.2 No. 14-95; CE marking  
 E29184  
 NKCR; NKCR7  
 UL report applies to both US and Canada  
 3211-83; 3211-03  
 UL listed, certified by UL for use in Canada  
 IEC: IP20, UL/CSA Type: -

### General

Standards			EN ISO 13849-1, DIN EN 50178, EN 60204-1, UL/CUL
Ambient temperature		°C	
Operation	θ	°C	-20 - +55
Storage	θ	°C	-40 - +70
Duty factor		% DF	100
Degree of protection			
Protection type			to VDE 0470-1 Enclosure: IP40 Terminals: IP20 Installation location: ≥ IP54
Busbar tag shroud			According to EN 50274 With vertical actuation from the front Finger- and back-of-hand proof
Mounting position			As required
Clearances and creepage distances between circuits			
Basic isolation			according to DIN EN 50178:1998-04
Rated impulse withstand voltage	U <sub>imp</sub>	V AC	4000
Notes			Safe isolation, reinforced insulation and 6 kV between A1/A2, 11/12, 23/24, 71/72 and 33/34, 43/44, 53/54, 63/64.
Pollution degree			2

Overvoltage category			III
Stripping length		mm	7
Conductor cross-section		mm <sup>2</sup>	0.2 - 2.5 (AWG 24-12)
Weight		kg	0,22
Terminal screw		Nm	
Standard screwdriver		mm	0.6 x 3.5
Max. tightening torque		Nm	0.6
Material			Housing: polyamide PA not reinforced Contacts: Material: silver tin oxide, gold plated (AgSnO <sub>2</sub> , 0.2 μm Au)

### Input data

Rated operational voltage	U <sub>e</sub>	V	24 V AC, 24 V DC
Permissible range			0.85 - 1.1 x U <sub>e</sub>
Current consumption		mA	normally at U <sub>e</sub> : AC: 92 DC: 92
Pick-up time	t <sub>A</sub>	ms	at U <sub>e</sub> in automatic mode: normally 20 at U <sub>e</sub> in manual mode: normally 20
Reset time	t <sub>R</sub>	ms	normally at U <sub>e</sub> 20
Status indication		LED	Green

### Output data

Enable current paths to IEC/EN 60204-1 Stop category 0			5
Signal current paths			1
Switching voltage			15 - 250 V AC 15 - 250 V DC
Limiting continuous current		A	N/O: 6 N/C: 3
Quadratic summation current		A <sup>2</sup>	72
Notes			Observe derating curve → Engineering
Inrush current		A	0.025 - 6
Maximum breaking power			
Resistive load (τ = 0 ms)			
24 V DC		W	144
Notes			for N/C contact 11/12 71/72
48 V DC		W	288
Notes			for N/C contact 11/12 71/72
110 V DC		W	110
220 V DC		W	88
250 V AC		VA	1500
Notes			for N/C contact 11/12 71/72
Inductive load (τ = 40 ms)			
24 V DC		W	42
48 V DC		W	42
110 V DC		W	42
220 V DC		W	42
Minimum switching capacity		W	0.4
Lifespan, mechanical	Operations		10,000,000
Maximum operating frequency		Ops/h	3600
Switching capacity			
			In accordance with IEC 60947-5-1
AC-15			
230 V		A	4 A bei 360 S/h 3 A bei 3600S/h
DC-13			
24 V		A	4 A bei 360 S/h 2.5 A bei 3600S/h
Short-circuit protective device			for output circuits, external: Fuse 6 A gL/gG

## Electromagnetic compatibility (EMC)

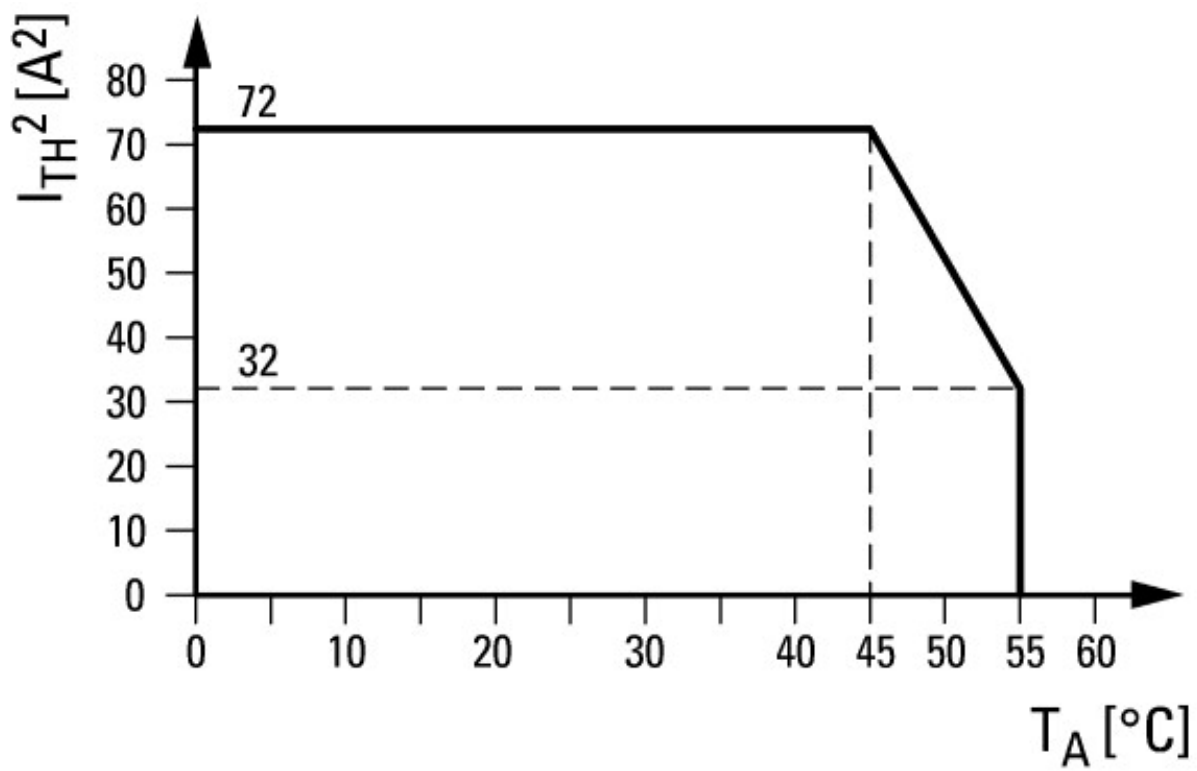
Emitted interference			In accordance with EN 61000-6-4
Interference immunity			according to EN 61000-6-2

## Technical data ETIM 4.0

Model			Expansion device
Suitable for monitoring of position switches			No
Suitable for monitoring of emergency-stop circuits			No
Suitable for monitoring of valves			No
Suitable for monitoring of optoelectronic protection equipment			No
Suitable for monitoring of tactile sensors			No
Suitable for monitoring of magnetic switches			No
Suitable for monitoring of proximity switches			No
Type of electric connection			Screw connection
Rail mounting possible			Yes
Rated control supply voltage Us at AC 50HZ		V	0 - 0
Rated control supply voltage Us at AC 60HZ		V	0 - 0
Rated control supply voltage Us at DC		V	0 - 0
Voltage type for actuating			AC/DC
With detachable clamps			Yes
Evaluation inputs			-
With start input			No
With muting function			No
With feedback circuit			Yes
Number of outputs, safety related, undelayed, with contact			5
Number of outputs, safety related, delayed, with contact			0
Number of outputs, safety related, undelayed, semiconductors			0
Number of outputs, safety related, delayed, semiconductors			0
Number of outputs, signalling function, undelayed, with contact			1
Number of outputs, signalling function, delayed, with contact			0
Number of outputs, signalling function, undelayed, semiconductors			0
Number of outputs, signalling function, delayed, semiconductors			0
Suited for safety functions			Yes
Category according to EN 954-1			4
Type of safety acc. IEC 61496-1			-
Stop category acc. to IEC 60204			0
SIL according to IEC 61508			3
SIL according to IEC 62061			3
Performance level acc. to EN ISO 13849-1			E
With approval for TÜV			Yes
With approval for BG BIA			No
With approval according to UL			Yes
Width		mm	22.5
Height		mm	114.5
Depth		mm	99

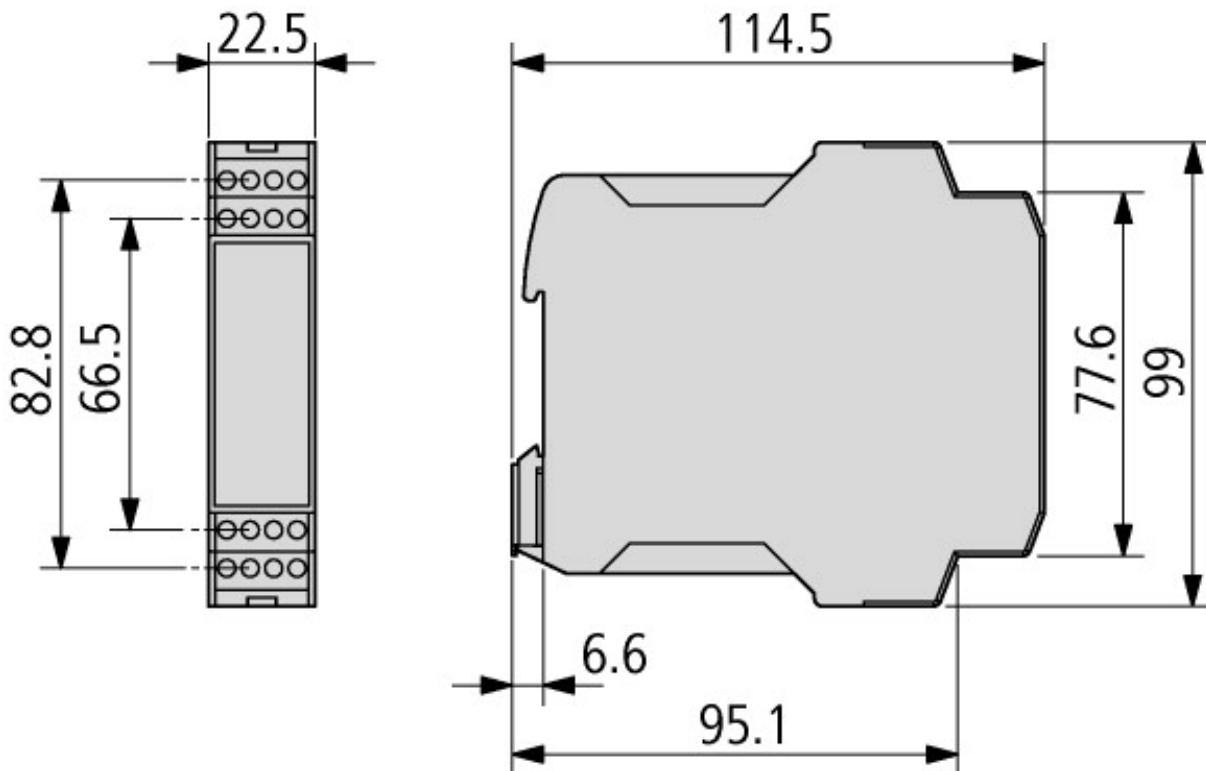
## Characteristics

PU05907001Z\*.pdf; PU05907001Z Sicherheitshandbuch



Derating-Kurve

### Dimensions



### Additional product information (links)

IL05013035Z Betriebsanleitung für den Elektroinstallateur

IL05013035Z Betriebsanleitung für den Elektroinstallateur

[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05013035Z2011\\_01.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013035Z2011_01.pdf)