




## Contact extension delayed 24VDC



Powering Business Worldwide™

**Part no.** ESR5-VE3-42  
**Article no.** 118706  
**Catalog No.**

### Delivery programme

Product range			Elektronische Sicherheitsrelais
Basic function			Time function Contact expansions
besondere Produktmerkmale			Rückmeldestrompfad
Betrieb			einkanalig überwacht
Supply voltage	$U_s$		24 V DC
Basic function			Time function Contact expansion
Approval			
suitable for applications to			Kat. 3 PL d according to EN ISO 13849-1 SILCL 2 according to IEC 62061 SIL 2 according to IEC 61508
Anzahl Freigabepfade nach EN 60204-1 Kategorie der Stopp-Funktionen			
Enable current paths to IEC/EN 60204-1 Stop category 1			4
Signal current paths			2
<b>Instructions</b>			The base unit determines the maximum stop category according to IEC 61508 and IEC 60204.

### Approvals

Product Standards	IEC/EN see Technical Data; UL 508; CSA-C22.2 No. 14-95; CE marking
UL File No.	E29184
UL Category Control No.	NKCR; NKCR7
CSA File No.	UL report applies to both US and Canada
CSA Class No.	3211-83; 3211-03
North America Certification	UL listed, certified by UL for use in Canada
Degree of Protection	IEC: IP20, UL/CSA Type: -

### General

Standards			EN ISO 13849-1, DIN EN 50178, DIN EN 60204-1, UL/CUL Listed
Ambient temperature		°C	
Operation	ø	°C	-20 - +55
Storage	ø	°C	-40 - +70
Duty factor		% DF	100
Degree of protection			
Protection type			to VDE 0470-1 Enclosure: IP20 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	$U_{imp}$	V AC	4000
Notes			Safe isolation, reinforced insulation and 6 kV between input current circuit/N/C contacts and enable contacts.
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	0,17
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 (AgSnO2)

### Input data

Rated operational voltage	U <sub>e</sub>	V	24 V DC
Permissible range			0.85 - 1.1 x U <sub>e</sub>
Current consumption		mA	normally at U <sub>e</sub> : AC: 94 DC: 94
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
OFF-delay	t <sub>RZ</sub>	s	0.3 - 3 +50%
Status indication		LED	Green

### Output data

Enable current paths to IEC/EN 60204-1 Stop category 1			4
Signal current paths			2
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>	50
Notes			Observe derating curve → Engineering
Inrush current		A	0.025 - 6 (N/O) 0.025 - 3 (N/C)
Maximum breaking power			
Resistive load (τ = 0 ms)			
24 V DC		W	144
Notes			for N/C contacts 65 - 66
48 V DC		W	288
Notes			for N/C contacts 65 - 66
110 V DC		W	77
220 V DC		W	88
250 V AC		VA	1500
Notes			for N/C contacts 65 - 66
Inductive load (τ = 40 ms)			
24 V DC		W	48
48 V DC		W	40
110 V DC		W	35
220 V DC		W	33
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
DC-13			
24 V		A	3 A bei 3600S/h
Short-circuit protective device			for output circuits, external: Fuse 10 A gL/gG (Enable current paths) Fuse 4 A gL/gG (Signal current paths)

### Electromagnetic compatibility (EMC)

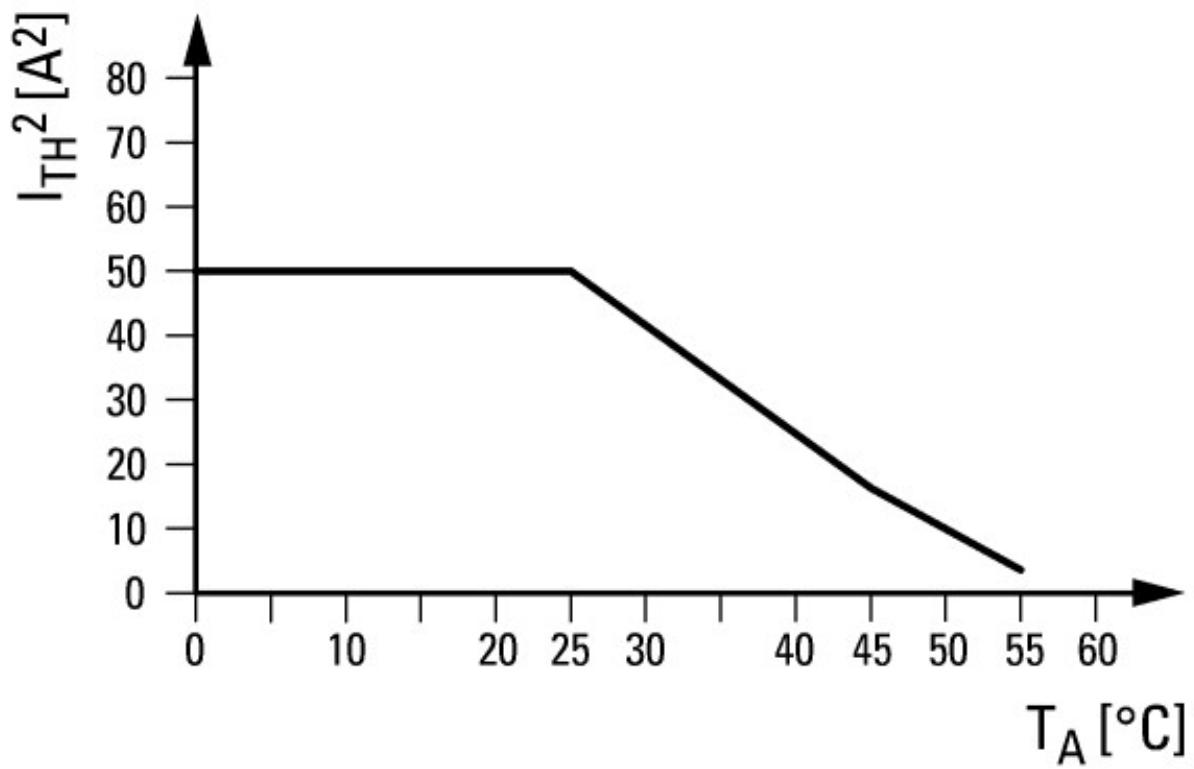
Emitted interference			In accordance with EN 61000-6-4
Interference immunity			according to EN 61000-6-2

## 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			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			0
Number of outputs, safety related, delayed, with contact			4
Number of outputs, safety related, undelayed, semiconductors			0
Number of outputs, safety related, delayed, semiconductors			0
Number of outputs, signalling function, undelayed, with contact			0
Number of outputs, signalling function, delayed, with contact			1
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			3
Type of safety acc. IEC 61496-1			-
Stop category acc. to IEC 60204			1
SIL according to IEC 61508			3
SIL according to IEC 62061			3
Performance level acc. to EN ISO 13849-1			D
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

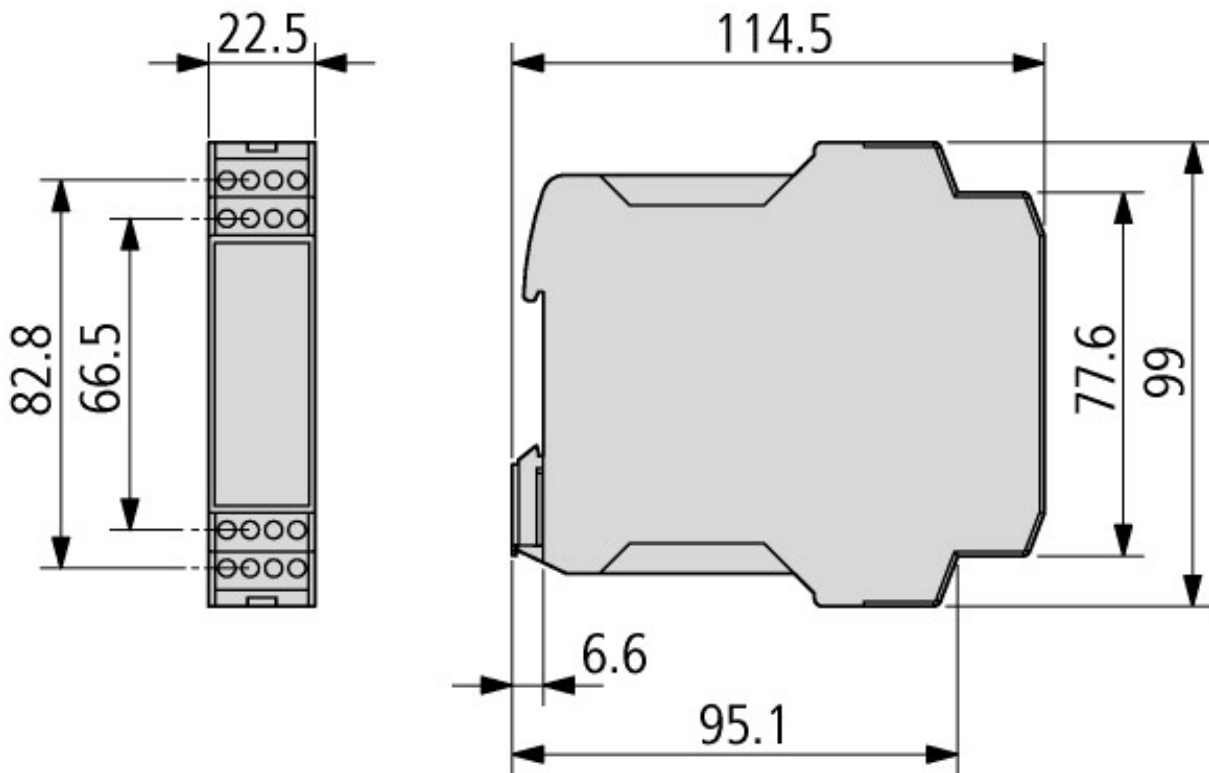
## Characteristics

PU05907001Z\*.pdf; PU05907001Z Sicherheitshandbuch



Derating-Kurve

### Dimensions



### Additional product information (links)

IL05013034Z Betriebsanleitung für den Elektroinstallateur

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[ftp://ftp.moeller.net/DOCUMENTATION/AWA\\_INSTRUCTIONS/IL05013034Z2011\\_01.pdf](ftp://ftp.moeller.net/DOCUMENTATION/AWA_INSTRUCTIONS/IL05013034Z2011_01.pdf)