

EMC SUPPRESSORS

SMALL DEVICE, BIG IMPACT

- Meets EMC guidelines
- Reduces voltage peaks
- Prevents coil short circuits

MURRELEKTRONIK SOLVES YOUR INTERFERENCE PROBLEMS

- Optimum interference results by adjusting your inductive load
- Prefabricated modules make it easy to install – reliably mounted every time
- Prevents operative failures and outages and increases availability
- Long service life of contacts and switching elements lower maintenance costs

THE RIGHT SUPPRESSION FOR ALL STANDARD INDUCTIVE LOADS

For Contactors

- Integrated system solutions for all standard contactors
- Universal suppressors for contactors or relays that snap in or stick to the mounting surface

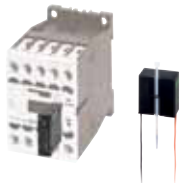
For Motors

- Suppression directly next to the interference source or inside the motor terminal box
- Motor connector has 10 poles and an earth connection point with integrated suppressor module and pre-wired cable
- Integrated system solutions for direct connection to the contactor
- Universal suppressors snap in next to the motor contactor

For Valves

- Suppressors are simply mounted between valve base and valve plug instead of the flat gasket

EMC Suppressors



For Contactors

ABB, General Electric, Eaton, Omron, Rockwell A. B.,
Schneider-Telemecanique, Siemens

Universal Suppressors

Page 1.9.1



For Motors – Installation on the Motor

RC 3 U, RC 3 R, RC 3 ST

Page 1.9.14



For Motors – Installation in the Cabinet

RC 3 BUR, HRC 3 AS, RC 3 RT

Page 1.9.17



For Valves

Form A, B, BI, C, CI

Page 1.9.18

EMC SUPPRESSORS

Suppressors for contactors



BC



A 16

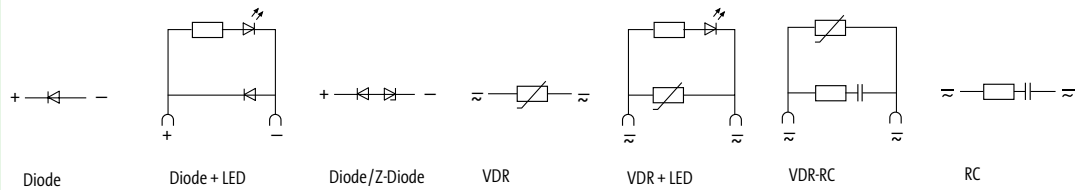


A 110

Approvals:



Circuit diagram



Appropriate contactors

B 6, BC 6, VB 6, KC 6

A 9...A 16

A 26...A 110

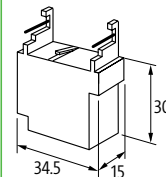
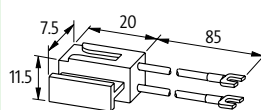
Ordering data

Voltage	Suppression	Approval	Art.-No.	Approval	Art.-No.	Approval	Art.-No.
24 ...240 V DC	Diode				26440		
24 V DC	Diode + LED						
	Diode/Z-Diode						
24 V AC/DC	VDR	CSA	26277				
	VDR + LED						
	RC						
48 V DC	Diode/Z-Diode						
48 V AC/DC	VDR	CSA	26278				
	RC						
110 V AC/DC	VDR						
	VDR + LED						
	VDR-RC						
	RC			CSA	21172	CSA	21173
230 V AC/DC	VDR	CSA	26079				
	VDR + LED						
	VDR-RC						
	VDR-RC + LED						
	RC			CSA	21172	CSA	21173
400 V AC/DC	VDR						
	RC						
415 V AC/DC	RC						

Technical data

Damping factor	~1,5 x U _N
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	self-securing cable forks

Dimension drawing



Notes

EMC SUPPRESSORS

Suppressors for contactors



Approvals:

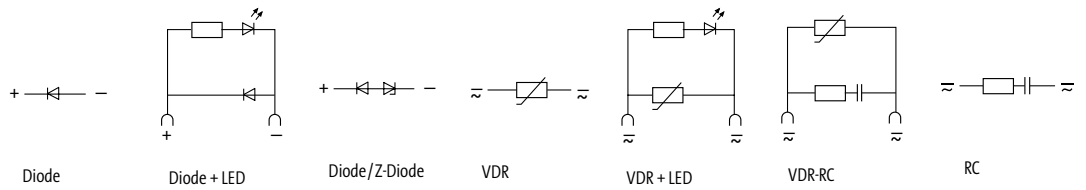
M



CL



Circuit diagram



Appropriate contactors

M

CL00, 01, 02, 25

CL03, 04, 45

CL05...10

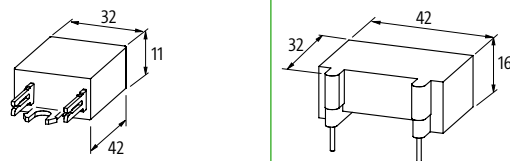
Ordering data

		Art.-No.	Art.-No.	Art.-No.	Art.-No.
Voltage	Suppression				
	24 ...240 V DC	Diode	2000-68300-110 0000	2000-69100-110 0000	2000-69200-110 0000
24 V DC	Diode + LED				
	Diode/Z-Diode				
24 V AC/DC	VDR	2000-68300-440 0000	2000-69100-440 0000	2000-69200-440 0000	2000-69100-440 0000
	VDR + LED				
	RC	2000-68300-430 0000	2000-69100-430 0000	2000-69200-430 0000	2000-69101-430 0000
48 V DC	Diode/Z-Diode				
48 V AC/DC	VDR	2000-68300-440 0000	2000-69100-440 0000	2000-69200-440 0000	2000-69100-440 0000
	RC	2000-68300-430 0000	2000-69100-430 0000	2000-69200-430 0000	2000-69101-430 0000
110 V AC/DC	VDR		2000-69100-740 0000	2000-69200-740 0000	2000-69100-740 0000
	VDR + LED				
	VDR-RC				
	RC		2000-69100-730 0000		
230 V AC/DC	VDR		2000-69100-242 0000	2000-69200-242 0000	
	VDR + LED				
	VDR-RC				
	VDR-RC + LED				
	RC			2000-69200-232 0000	2000-69101-232 0000
400 V AC/DC	VDR		2000-69100-542 0000	2000-69200-542 0000	2000-69100-542 0000
	RC				
415 V AC/DC	RC				

Technical data

Damping factor	$\sim 1,5 \times U_N$
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	plug contact

Dimension drawing



Notes

Art.-No. 2000-69200-110 0000 – also for CL05...10 DC-coils.

EMC SUPPRESSORS

Suppressors for contactors

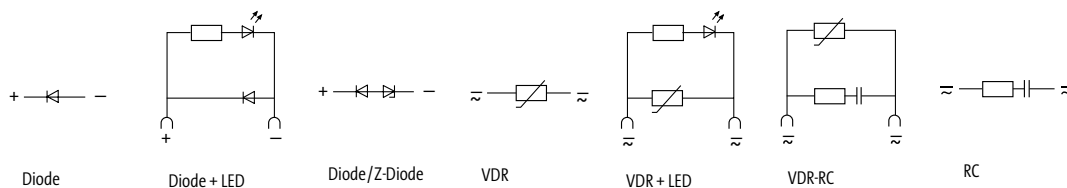
X-Start



Approvals:



Circuit diagram



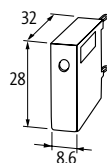
Appropriate contactors

		DIL M7...15 DIL MP20, DIL A	DIL M17...32	DIL M40...95
Ordering data		Art.-No.	Art.-No.	Art.-No.
Voltage	Suppression			
24 ...240 V DC	Diode			
24 V DC	Diode + LED			
	Diode/Z-Diode			
24 V AC/DC	VDR			
	VDR + LED	26013	26015	
	RC			
48 V DC	Diode/Z-Diode			
48 V AC	VDR + LED	26013	26015	
	RC			
110 V AC/DC	VDR			
	VDR + LED	26014		
	VDR-RC			
	RC	20007	20008	20009
230 V AC/DC	VDR			
	VDR + LED	26014		
	VDR-RC			
	VDR-RC + LED			
	RC	20007	20008	20009
400 V AC/DC	VDR			
	RC			

Technical data

Damping factor	~1,5 x U _N
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	plug contact

Dimension drawing



Notes

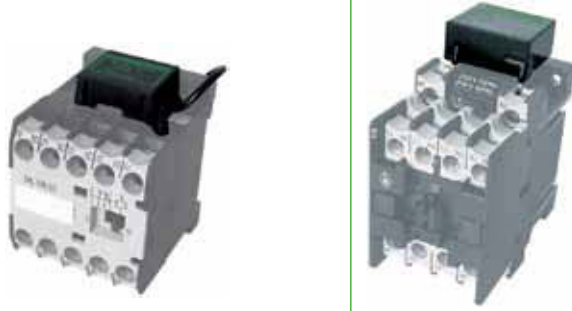
LED indicator for 24 V DC without suppression available on request.

EMC SUPPRESSORS

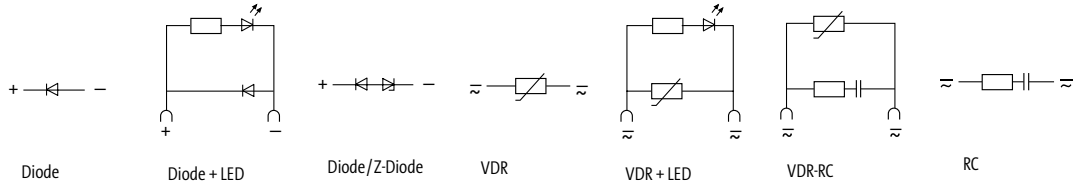
Suppressors for contactors



Approvals:



Circuit diagram



Appropriate contactors

DIL E...	DIL 3 - 4...M DIL 3 H, DIL 4 H	DIL 0 - 2...M DIL R...
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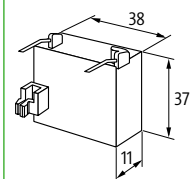
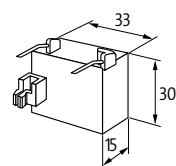
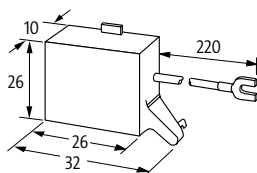
Ordering data

	Art.-No.	Art.-No.	Art.-No.
Voltage Suppression			Approval
24 ...240 V DC Diode			26080
24 V DC Diode + LED			
24 V DC Diode/Z-Diode			26081
24 V AC/DC VDR			
VDR + LED			
RC			
48 V DC Diode/Z-Diode			
48 V AC/DC VDR			
RC			
110V AC/DC VDR			
VDR + LED			
VDR-RC			
RC	21054	21073	21028
230V AC/DC VDR	26086		
VDR + LED			
VDR-RC			
VDR-RC + LED			
RC	21054	21073	21028
400V AC/DC VDR			
RC			

Technical data

Damping factor	$\sim 1,5 \times U_N$
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	self-securing cable forks plug contact

Dimension drawing



Notes

EMC SUPPRESSORS

Suppressors for contactors

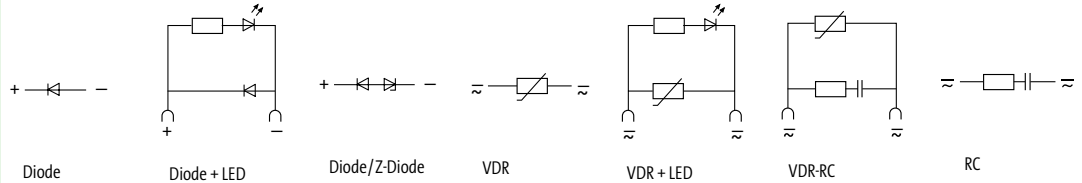
OMRON



Approvals:



Circuit diagram



Appropriate contactors

J7KNA

J7KN

J7KN

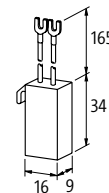
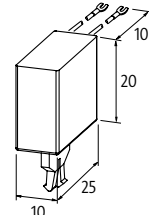
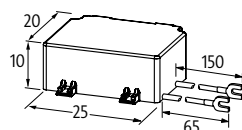
Ordering data

		Art.-No.	Art.-No.	Art.-No.
Voltage	Suppression			Approval
24 ...240 V DC	Diode			
24 V DC	Diode + LED			
	Diode/Z-Diode			
24 V AC/DC	VDR			cURus / CSA
	VDR + LED			
	RC	2000-68800-230 0000	2000-69000-230 0000	26400
48 V DC	Diode/Z-Diode			
48 V AC	VDR			cURus / CSA
	RC			26401
110 V AC/DC	VDR			
	VDR + LED			
	VDR-RC			
	RC	2000-68800-730 0000		
230 V AC/DC	VDR			cURus / CSA
	VDR + LED			
	VDR-RC			
	VDR-RC + LED			
	RC	2000-68800-232 0000		
400 V AC/DC	VDR			cURus / CSA
	RC			26404

Technical data

Damping factor	~1,5 x U _N
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	self-securing cable forks

Dimension drawing



Notes

Further types on request.

EMC SUPPRESSORS

Suppressors for contactors



I00-M

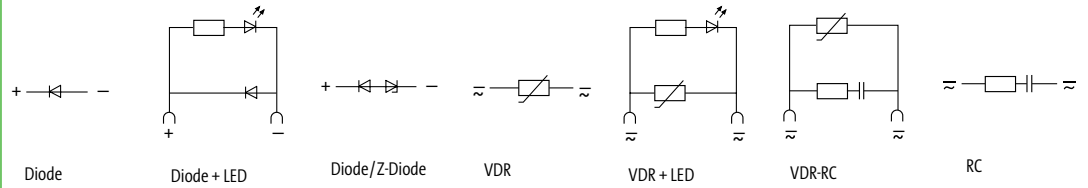


I00-C



Approvals:

Circuit diagram



Appropriate contactors

I00 M

I00-C09...C85

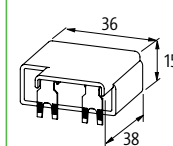
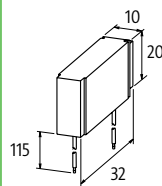
Ordering data

Voltage		Suppression	Approval	Art.-No.	Art.-No.
24 ...240 V DC	Diode				cURus / CSA 2000-68200-110 0000
24 V DC	Diode + LED				
24 V AC/DC	Diode /Z-Diode				
	RC				cURus / CSA 2000-68200-430 0000
	VDR	cURus / CSA	26375		cURus / CSA 2000-68200-440 0000
48V AC/DC	RC				cURus / CSA 2000-68200-430 0000
	VDR				cURus / CSA 2000-68200-440 0000
110V AC/DC	VDR				cURus / CSA 2000-68200-740 0000
	VDR + LED				
	VDR-RC				
	RC				cURus / CSA 2000-68200-132 0000
230 V AC/DC	VDR	cURus / CSA	26378		cURus / CSA 2000-68200-242 0000
	VDR + LED				
	VDR-RC				
	VDR-RC + LED				
	RC	cURus / CSA	21143		cURus / CSA 2000-68200-132 0000
400V AC/DC	RC				cURus / CSA 2000-68200-532 0000
	VDR				cURus / CSA 2000-68200-542 0000

Technical data

Damping factor	~1,5 x U _N
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	ferrule ends

Dimension drawing



Notes

EMC SUPPRESSORS

Suppressors for contactors



TeSys



TeSys



TeSys



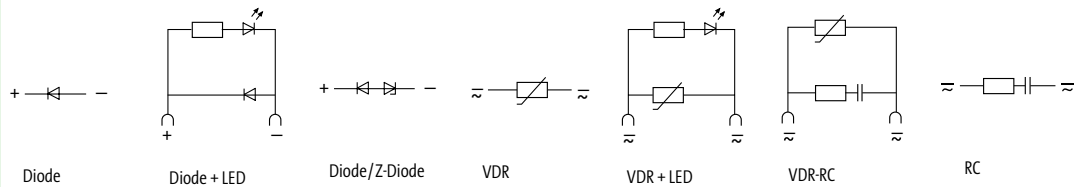
D



Approvals:



Circuit diagram



Appropriate contactors

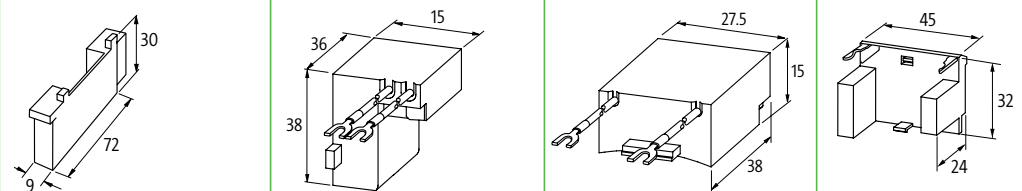
LC 1 D09...D38 LC 1 DT20, DT40, LC 2 D09...D38 AC-coil	LC 1 D09...D38 LC 1 DT20, DT40, LC 2 D09...D38 DC-coil	CA 2 DN, CA 3 DN serie „d“ LC 1 DT20, DT40, LC 2 D09...D38
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Ordering data	Art.-No.	Art.-No.	Art.-No.	Art.-No.
Voltage	Suppression	Approval	Approval	
24 ...240 V DC	Diode		cURus 2000-69300-110 0000	26481
24 V DC	Z-Diode	26476	cURus 2000-69300-520 0000	
24 V AC/DC	VDR	cURus 2000-69400-440 0000	cURus 2000-69300-440 0000	
	RC	cURus 2000-69400-430 0000	cURus 2000-69300-430 0000	21070
30...250 V DC	Z-Diode			
48 V AC/DC	VDR	cURus 2000-69400-440 0000	cURus 2000-69300-440 0000	
	VDR + LED			
	RC	cURus 2000-69400-430 0000	cURus 2000-69300-430 0000	21070
110V AC/DC	VDR	cURus 2000-69400-740 0000	cURus 2000-69300-740 0000	
	VDR + LED			
230V AC/DC	RC	21063 cURus 2000-69400-730 0000	cURus 2000-69300-730 0000	21071
	VDR	cURus 2000-69400-242 0000	cURus 2000-69300-242 0000	
	VDR + LED			
400V AC/DC	VDR-RC + LED			
	RC	21063 cURus 2000-69400-232 0000	cURus 2000-69300-232 0000	21060
	RC + LED			
400V AC/DC	VDR	cURus 2000-69400-542 0000		
	RC	cURus 2000-69400-532 0000		

Technical data

Damping factor	~1,5 x U _N
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	plug contact self-securing cable forks self-securing cable forks plug contact

Dimension drawing



Notes

EMC SUPPRESSORS

Suppressors for contactors

S00

S0

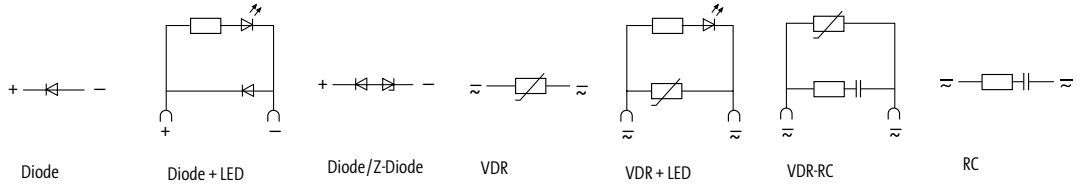
SIEMENS



Approvals:



Circuit diagram



Appropriate contactors

3 RT 20.15/16/17/18

3 RT 20.25/26/27/28

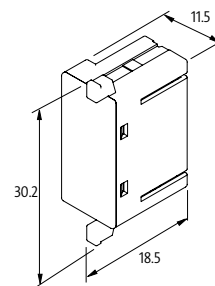
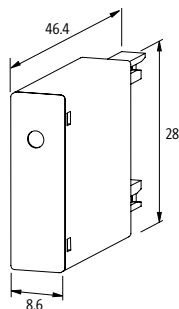
Ordering data

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Voltage	Suppression		
24 ...240 V DC	Diode	2000-68500-110 0000	
24 V DC	Diode + LED		2000-68400-201 0000
	Diode/Z-Diode		
24 V AC/DC	VDR	2000-68500-440 0000	2000-68400-440 0000
	VDR + LED	2000-68500-441 0000	2000-68400-441 0000
	RC	2000-68500-430 0000	2000-68400-430 0000
48 V AC/DC	VDR		
	RC	2000-68500-430 0000	2000-68400-430 0000
110 V AC/DC	VDR	2000-68500-740 0000	2000-68400-740 0000
	VDR + LED	2000-68500-741 0000	2000-68400-741 0000
	VDR-RC		
	RC	2000-68500-730 0000	2000-68400-730 0000
230V AC/DC	VDR	2000-68500-242 0000	2000-68400-242 0000
	VDR + LED	2000-68500-247 0000	
	RC	2000-68500-232 0000	2000-68400-232 0000
400V AC/DC	VDR	2000-68500-542 0000	2000-68400-542 0000
	RC	2000-68500-532 0000	2000-68400-532 0000

Technical data

Damping factor	$\sim 1,5 \times U_N$
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	plug contact

Dimension drawing



Notes

Suppressors for contactors

S2

S3

S6 - S12

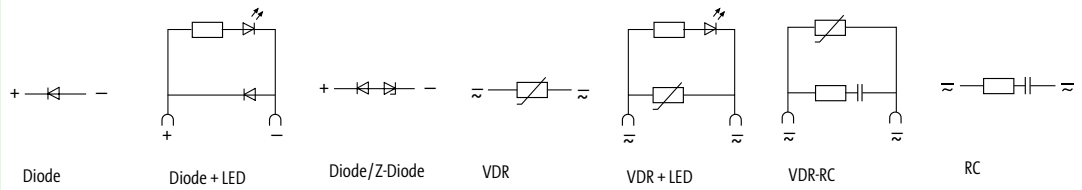
SIEMENS



Approvals:



Circuit diagram



Appropriate contactors

3 RT 1.3/1.4

3 RT 1.5/6/7

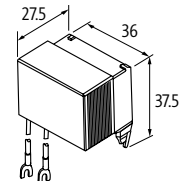
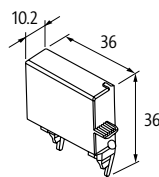
Ordering data

Voltage		Suppression	Approval	Art.-No.	Approval	Art.-No.	Art.-No.
24 V DC		Diode + LED					
		Diode + Z-Diode + LED					
		Diode/Z-Diode			UR / CSA	26521	
24 V AC/DC		VDR			UR / CSA	26524	
		VDR + LED					
		VDR-RC	UR / CSA	21215			21220
48 V DC		Diode/Z-Diode					
48 V AC/DC		VDR					
		VDR-RC					21220
110 V AC/DC		VDR					
		VDR + LED					
		VDR-RC					
		RC					
230 V AC/DC		VDR			UR / CSA	26526	
		VDR + LED					
		VDR-RC					
		RC	UR / CSA	21217			21222
400 V AC/DC		VDR					

Technical data

Damping factor	~1,5 x U _N
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	plug contact

Dimension drawing



Notes

EMC SUPPRESSORS

Suppressors for contactors

SIEMENS

Approvals:



S0 4



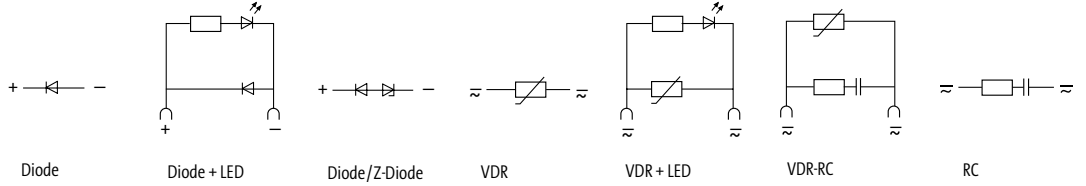
S0 1



3 TF/L-3 TF



Circuit diagram



Appropriate contactors

3 TH 3/4
3 TF 30...35, 3 TF 40...45

3 TH 3/4/8, 3 TF 30...45
3 TB 40...3 TB 44

3 TH 2, 3 TF 2
3 TH 20, 3 TF 20

Ordering data

Art.-No.

Art.-No.

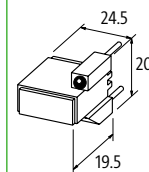
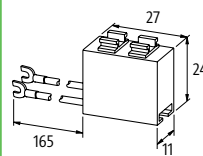
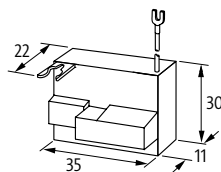
Art.-No.

Voltage	Suppression	Approval	Art.-No.	Approval	Art.-No.	Approval	Art.-No.
24...240 V DC	Diode		26588	UR / CSA	26283	cURus / CSA	26036
24V DC	Diode + LED			UR / CSA	26051	cURus / CSA	26530
	Diode/Z-Diode			UR / CSA	26051	cURus / CSA	26034
24V AC/DC	VDR	CSA	26576				
	VDR + LED			UR / CSA	22050		
	RC						
48V DC	Diode/Z-Diode						
48V AC/DC	VDR	CSA	26576			cURus / CSA	26038
	RC			UR / CSA	22051		
110 V AC/DC	VDR						
	VDR + LED						
	VDR-RC						
	RC			UR / CSA	22051		
230 V AC/DC	VDR	CSA	26578	UR / CSA	26317	cURus / CSA	26039
	VDR + LED						
	VDR-RC						
	RC			UR / CSA	22052		
	RC			UR / CSA	22054		
400 V AC/DC	VDR						
	RC			UR / CSA	22054		

Technical data

Damping factor	$\sim 1,5 \times U_N$
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	self-securing cable forks

Dimension drawing



Notes

EMC SUPPRESSORS

Suppressors

– universal

AO

AD

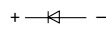
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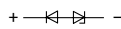
Approvals:



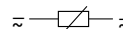
Circuit diagram



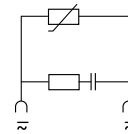
Diode



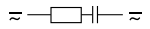
Diode/Z-Diode



VDR



VDR-RC



RC

Appropriate contactors

universal

universal

universal

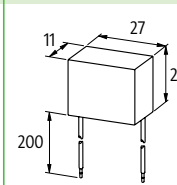
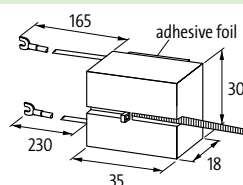
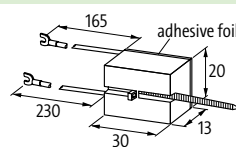
Ordering data

Ordering data		Art.-No.	Art.-No.	Art.-No.	sugg. coil valves		
Voltage	Suppression	Approval	Approval	Approval	AO	AD	CF
Max. 240 V DC	Diode	CSA 26001			15 W		
24 V DC	Z-Diode	CSA 26120	CSA 26073		25 W	75 W	
24 V AC/DC	VDR	cURus / CSA 26180	CSA 26720		50 VA/W	200 VA/W	
	RC			CSA 20680			20 VA
48 V AC/DC	VDR	cURus / CSA 26181			70 VA/W		
	RC	cURus / CSA 20001	cURus / CSA 20013		15 VA	15 VA	
110 V AC/DC	VDR	cURus / CSA 26182	CSA 26722		100 VA/W	200 VA/W	
	VDR-RC						
	RC						
230 V AC/DC	VDR	cURus / CSA 26183	CSA 26723		200 VA/W	200 VA/W	
	VDR	cURus / CSA 26184			200 VA/W		
	RC		CSA 20014	CSA 20682		25 VA	20 VA
	RC	cURus / CSA 20002	cURus / CSA 20010	CSA 20683	15 VA	75 VA	20 VA
	RC		cURus / CSA 20011	CSA 20687		100 VA	50 VA
400 V AC/DC	VDR		CSA 26724			200 VA/W	
	RC	cURus / CSA 20004	cURus / CSA 20012	CSA 20688	15 VA	100 VA	50 VA
	RC						

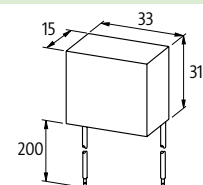
Technical data

Damping factor	ca. 1,5
Temperature range	-20...+70 °C
Material	plastic, flame retardant (UL 94)
Connection wires	self-securing cable forks

Dimension drawing



Form 1



²⁾ Form 2

Notes

Art.-No. 26184 – up to 300 V AC/DC

EMC SUPPRESSORS

Suppressors

– universal

H

RC-BUG 2

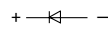
BU + UB



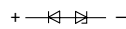
Approvals:



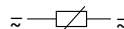
Circuit diagram



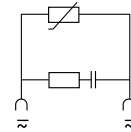
Diode



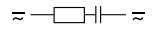
Diode/Z-Diode



VDR



VDR-RC



RC

Appropriate contactors

universal

universal

universal

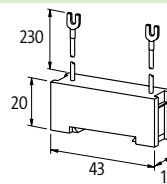
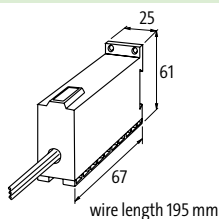
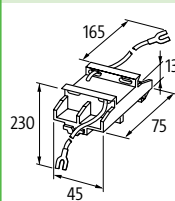
Ordering data

Ordering data		Art.-No.	Art.-No.	Art.-No.	sugg. coil valves		
Voltage	Suppression	Approval	Approval	Approval	H	RC-BUG 2	BU + UB
24 ...240 V DC	Diode	CSA 26097		CSA 26020	25 W		50 W
24 V DC	Z-Diode	CSA 26095		CSA 26130	25 W		50 W
24 V AC/DC	VDR	cURus / CSA 26090		cURus / CSA 26150	50 VA/W		50 VA/W
	RC						
48 V AC/DC	VDR						
	RC	CSA 20100			15 VA		
110 V AC/DC	VDR						
	VDR-RC						
	RC		CSA 26613			146 VA	
230 V AC/DC	VDR						
	VDR		CSA 26619	cURus / CSA 26155		100 VA/W	200 VA/W
	RC	CSA 20101	CSA 26614	CSA 20031	15 VA	146 VA	25 VA
	RC	CSA 20102		CSA 20033	25 VA		25 VA
	RC	CSA 20103		CSA 20034	75 VA		25 VA
400 V AC/DC	VDR						
	RC		CSA 26615	CSA 20032		146 VA	25 VA
	RC		CSA 26616			146 VA	

Technical data

Damping factor	ca. 1,5		
Temperature range	-20...+70 °C		
Material	plastic, flame retardant (UL 94)		
Mounting method	DIN-rail mounting (EN 60715)	with adapter ASA Art.-No. 20900, DIN-rail mounting (EN 60715)	
Connection wires	self-securing cable forks		

Dimension drawing



Notes

Art.-No. 20034 – without adapter, can be directly snapped onto DIN-rail, ASA adapter Art.-No. 20900 included in delivery.
Art.-No. 26616 – up to 600 V AC/DC

EMC SUPPRESSORS

Suppressors for motors

Mounting methods:

- on the motor terminal box
- inside the motor terminal box
- inside the distribution box
- on 35 mm DIN-rail acc. to EN 60715

Approvals:



RC 3 U

With M16 x 1,5



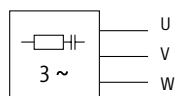
RC 3 BU



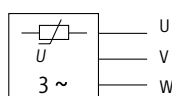
RC 3 BUG



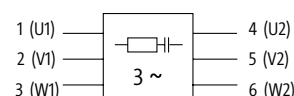
Circuit diagram



RC



VDR

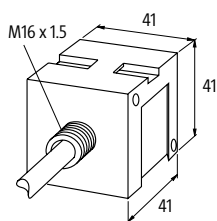


RC(1) per phase

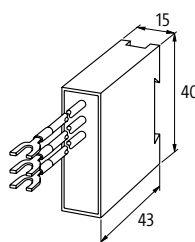
Ordering data		Art.-No.	Art.-No.	Art.-No.
Voltage	Motor rating	Suppression/Approval	Suppression/Approval	Suppression/Approval
3 x 400 V AC	4 kW	RC	23022	RC/cURus
	4 kW			VDR
	4 kW			VDR/cURus
	7,5 kW			VDR/cURus
	10 kW	RC	23011	VDR/cURus
	10 kW	RC-per phase	23043	
	20 kW			VDR/cURus
3 x 575 V AC	4 kW			RC/cURus
	7,5 kW	RC/cURus	23035	
	20 kW			
	45 kW			
3 x 690 V AC	4 kW			RC/v
	7,5 kW			
	20 kW			

Technical data

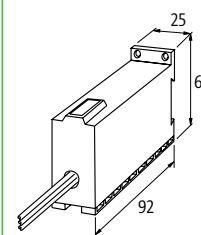
Frequency	for RC: 50...60 Hz		for VDR: 10...400 Hz
Material	plastic, flame retardant (UL 94)		
Potting compound	2-component epoxy		
Temperature range	-20...+60 °C		
Connection method	approx. 500 mm PVC cable 3 x 0,75 mm ² or 7 x 0,75 mm ²	approx. 200 mm single core 0,35 mm ² ; Art.-No. 23056 0,5 mm ² with self-securing M4 cable forks M4	approx. 500 mm single core 1 mm ²



For DIN-rail mounting use
2 x **Art.-No. 20900** adapter feet



For DIN-rail mounting use
1 x **Art.-No. 20900** adapter feet



For DIN-rail mounting use
2 x **Art.-No. 20900** adapter feet

Notes

Do not use RC motor suppressors on variable frequency drives.
1 x **Art.-No. 23103, 23043** required per phase.

EMC SUPPRESSORS

Suppressors for motors

Mounting methods:

- with M16 x 1.5 and M20 x 1.5
- on the motor terminal box with plug connectors

Approvals:



RC 3 R

With M16 x 1.5 screw



RC 3 R

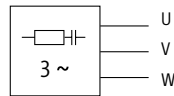
With M16 x 1.5 screw

RC 3 RG

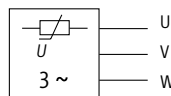
With M20 x 1.5 screw



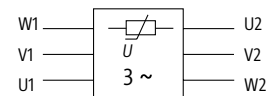
Circuit diagram



RC



VDR



VDR-(1) per phase

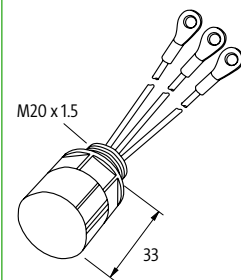
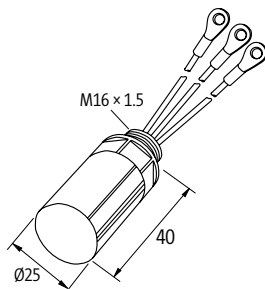
Ordering data

Ordering data		Art.-No.	Art.-No.	Art.-No.
3 x 400 V AC	Motor rating	Suppression/Approval	Suppression/Approval	Suppression/Approval
	4 kW	VDR/cURus	23170	RC/cURus
	4 kW			
	4 kW			
	7,5 kW	VDR	23171	
	10 kW			VDR
3 x 575 V AC	20 kW			23142
	4 kW	VDR/cURus	23172	VDR
	7,5 kW	VDR/cURus	23173	23144
	10 kW			RC/cURus
	20 kW			23141
	20 kW			VDR/cURus
3 x 690 V AC	7,5 kW	VDR	23174	23145
	20 kW			VDR/cURus
	20 kW			23146
	20 kW			VDR per phase
				23147
				VDR
				23149

Technical data

Frequency	for RC: 50...60 Hz		for VDR: 10...400 Hz
Material	plastic, flame retardant (UL 94)		
Potting compound	2-component epoxy		
Temperature range	-20...+60 °C		
Connection method	approx. 100 mm single core 0,5 mm ²		approx. 150 mm single core 1 mm ²
Ring terminals	isolated M6	isolated M4	isolated M6

Dimension drawing



Notes

Do not use RC motor suppressors on variable frequency drives.

Art.-No. 23174 – wire diameter 1.5 mm².

EMC SUPPRESSORS

Suppressors for motors

Mounting methods:

– on the motor terminal box with plug connectors

Approvals:



RC 3 ST

Connector with cable and integrated motor suppression
Cable outlet in the back

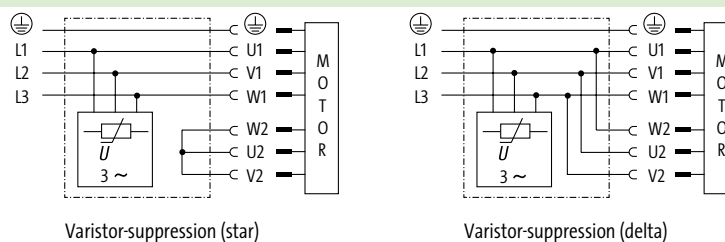


RC 3 ST

Connector with cable and integrated motor suppression
Cable outlet (right angle)



Circuit diagram



Varistor-suppression (star)

Varistor-suppression (delta)

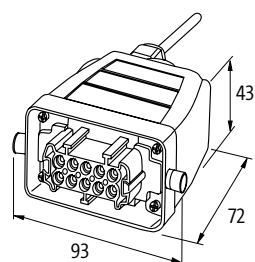
Ordering data

Voltage	Motor rating	Cable length	Suppression	Art.-No.	Suppression	Art.-No.
max.	5,5 kW	5 m	VDR/star	236139	VDR/star	236148
3 x 575 V AC	5,5 kW	8 m	VDR/star	236141	VDR/star	236149
	5,5 kW	10 m	VDR/star	236142		

Technical data

Frequency	10...400 Hz					
Plug connector	females, 10-pole + PE					
Housing	aluminium pressure diecasting					
Temperature range	-20...+60 °C					
Connection method	PUR cable black, 4 x 1.5 mm ² ; numbered wires, halogen free			PUR cable black, 4 x 1.5 mm ² ; numbered wires, DESINA® compliant		

Dimension drawing



(without compression gland)

Notes

EMC SUPPRESSORS

Suppressors for motors

Mounting methods:

- on 35 mm DIN-rail acc. to EN 60715
- bolted together, stacked
- DIN-rail mounting under the control gear

Approvals:



HRC 3



HRC 3 K



RC 3 BUC

Connects onto Siemens SIRIUS 3 RT 20 contactors, with screw terminal

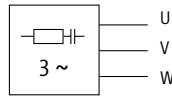


RC 3 BUC

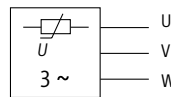
Connects onto Siemens SIRIUS 3 RT 20 contactors, with spring clamp terminal



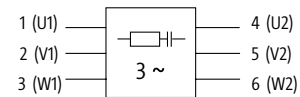
Circuit diagram



RC



VDR



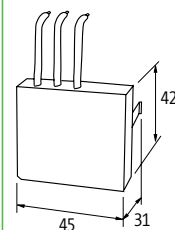
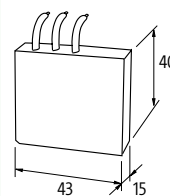
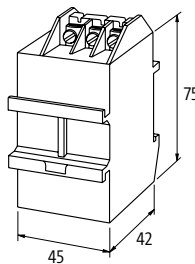
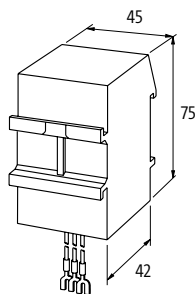
RC(1) per phase

Ordering data		Art.-No.	Art.-No.	Art.-No.	Art.-No.	
3 x 400 V AC	Motor rating	Suppression/Approval	Suppression/Approval	Suppression/Approval	Suppression/Approval	
	4 kW	RC/cURus	23004	RC	23005	
	4 kW	RC/cURus	233463			
	5,5 kW			RC/cURus	236082	
	7,5 kW				RC/cURus	23220
	10 kW	RC/cURus	23002	RC	23003	
	20 kW	RC-per phase/cURus	23009			
3 x 500 V AC +10 %	20 kW	VDR/cURus	23015			
	4 kW	RC/cURus	23000	RC	23001	
3 x 575 V AC	5,5 kW			RC/cURus	236082	
	7,5 kW	RC/cURus	23006	RC	23007	
	7,5 kW	RC/cURus	230563		RC/cURus	23220
	10 kW	VDR/cURus	23016			
	20 kW			RC	23018	
3 x 690 V AC	10 kW	RC	23017			

Technical data

Frequency	for RC: 50...60 Hz, for VDR: 10...400 Hz			
Material	plastic, flame retardant (UL 94)			
Potting compound	2-component epoxy			
Temperature range	-20...+60 °C			
Connection method	approx. 250 mm s. core (Art.-No. 23000: 300 mm) 0,5 mm ² (Art.-No. 23000: 1,5 mm ²) with self-securing M4 cable forks	3-pole terminal 2 x (0,75...2,5 mm ²) M4	wire (solid core) 2,0 mm ²	wire with ferrule ends 2,0 mm ²

Dimension drawing



Notes

Do not use RC motor suppressors on variable frequency drives.
Art.-No. 233463 and 230563 – with ferrule ends.

EMC SUPPRESSORS

Suppressors for motors

Mounting methods:

- DIN-rail mounting under the control gear
- fixes onto contactors
- available with integrated coil suppression

Approvals:



HRC 3 AS

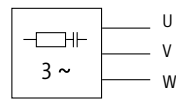


RC 3 RT

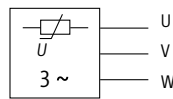
Connects onto Siemens SIRIUS 3 RT 10, 3 RT 20 contactors with screw terminal



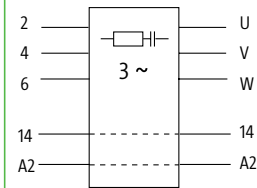
Circuit diagram



RC



VDR



Appropriate contactors

Motor contactors up to 5.5 kW from Siemens, Moeller, Sprecher + Schuh etc.

Siemens 3 RT 10

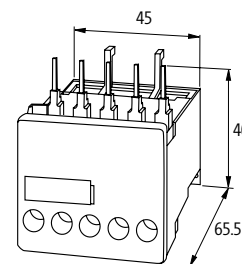
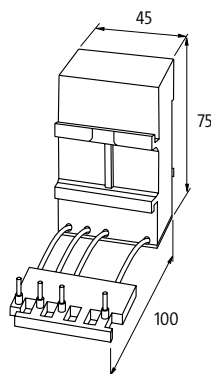
Ordering data

		Art.-No.	Art.-No.	Art.-No.
Voltage	Motor rating	Suppression motor + coil	Suppression motor + coil	Suppression/approval
3 x 400 V AC	5,5 kW	RC 23160	VDR 23163	RC/cURus / CSA 23180
	5,5 kW	RC + Diode 23151		
3 x 575 V AC	5,5 kW	RC 23161	VDR 23164	RC/cURus / CSA 23181
	5,5 kW		VDR + Diode 23157	

Technical data

Suppression coil	for RC: 230 V AC/20 VA, for RC + Diode: 24...230 V DC/36 W
Frequency	for RC: 50...60 Hz, for VDR: 10...400 Hz
Material	plastic, flame retardant (UL 94)
Temperature range	-20...+60 °C
Connection method	ferrules, load side securely fixed

Dimension drawing



Notes

Do not use RC motor suppressors on variable frequency drives.

EMC SUPPRESSORS

Suppressors for valves

- with LED
- with suppression

VBS

Form A
Pin spacing 18 mm
EN 175301-803 (ISO 4400)

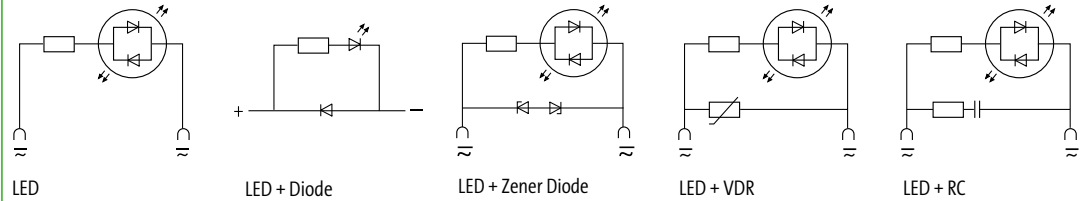


LBS

Form BI Industrial Standard
Pin spacing 11 mm



Circuit diagram



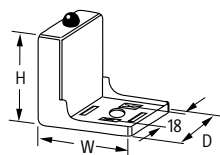
Ordering data

Voltage	Suppression	Art.-No.	Art.-No.	Switch off delay time [ms]	Switch off voltage peak [V]	Valve hold-on rating [W/ VA]
24 V DC	LED + Diode	¹⁾ 3124021	3124221	200	1	50
	LED	¹⁾ 3124015	3124215	-	-	50
	LED + Z-Diode	¹⁾ 3124033	3124233	20	55	100
	LED + VDR	¹⁾ 3124048	3124248	15	45	50
	LED + RC	3124068		20	105	10
	LED + RC		3124269	20	70	20
48 V AC/DC	LED	¹⁾ 3124017		-	-	50
	LED + VDR	¹⁾ 3124052		10	75	100
	LED + RC	²⁾ 3124071		20	90	30
110 V AC/DC	LED	3124018		-	-	50
	LED + VDR	3124046		10	235	100
	LED + RC	3124070		20	250	10
	LED + RC	²⁾ 3124072		20	250	25
230 V AC/DC	LED	3124016	3124216	-	-	50
	LED + VDR	3124049	3124249	15	360	100
	LED + RC	3124063	3124263	20	300	10
	LED + RC	²⁾ 3124064		20	300	25

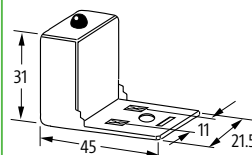
Technical data

Supply indicator	LED yellow
Contact material	silvered bronze
Protection	IP65 when fully mounted
Material	polyamide black, flame retardant, temperature resistant up to 130 °C
Temperature range	-20...+60 °C

Dimension drawing



Housing H x W x D: 37 x 45 x 30 mm
¹⁾Housing H x W x D: 37 x 39 x 30 mm
²⁾Housing H x W x D: 37 x 53 x 33 mm
 0° and 180° version on request



Note PIN arrangement (PE at cable outlet of connector)
 180° version on request

Notes

Do not use plug gasket when fitting adapter. Other LED colors on request.
 For double valves the VA 2 series is suitable (please inquire). At Art.-No. 3124021 and 3124221 polarity dependent

Suppressors for valves

- with LED
- with suppression

DAB/PBS

Form B/BI
Pin spacing 10/11 mm
EN 175301-803 (ISO 6952)

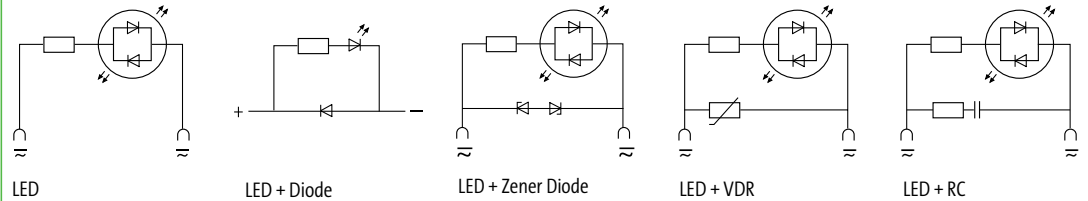


MVK/MVT

Form C/CI
Pin spacing 8/9.4 mm
EN 175301-803 (ISO 6952)



Circuit diagram

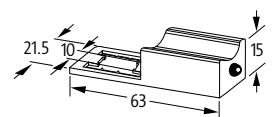


Ordering data		Art.-No.	Art.-No.	Art.-No.	Art.-No.	Switch off delay time	Switch off voltage peak	Valve hold-on rating
Voltage	Suppression	Form B	Form BI	Form C	Form CI	[ms]	[V]	[W/VA]
24 V DC	LED + Diode	3124871	3124121			200	1	50
24 V AC/DC	LED	3124875	3124115	3124811	3124815	-	-	50
	LED + Z-Diode	3124873	3124133	3124833	3124832	20	55	100
	LED + VDR		3124148			15	45	50
	LED + RC		3124169			20	70	20
110 V AC/DC	LED + RC		3124170			20	250	10
230 V AC/DC	LED		3124116			-	-	50
	LED + VDR					15	360	100
	LED + RC		3124163			20	300	10

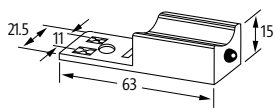
Technical data

Supply indicator	LED yellow
Contact material	silvered bronze
Protection	IP65 when fully mounted
Material	polyamide black, flame retardant, temperature resistant up to 130 °C
Temperature range	-20...+60 °C

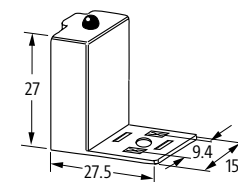
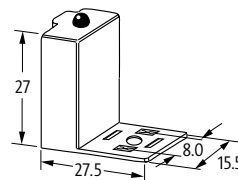
Dimension drawing



Suitable for 0° and 180° installation



Note PIN arrangement
(PE at cable outlet of connector)
180° version on request



0° and 180° version on request

Notes

Do not use plug gasket when fitting adapter. Other LED colors on request. Right-angle housing version with 10 mm pin spacing (DAR/DARU), on request. At Art.-No. **3124871** and **3124121** polarity dependent.