

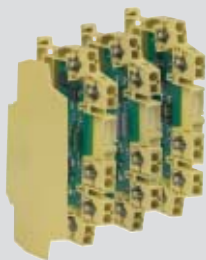


6 mm wide surge protective modular terminal block, 2-pole, with cage clamp connection. Earthing via DIN rail or terminal.

DEHNconnect RK is a 6 mm wide surge protective modular terminal block. With 5 cage clamp spring pressure connections, 2 lines can be protected and, additionally, the equipotential bonding to the terminal equipment can be established. Thanks to the snap-in fixing device at the supporting foot, the device is safely earthed via the DIN rail. For reducing the wiring,

- Min. installation width (only 6 mm)
- Quick installation with jumper bar (accessories)
- Spring pressure connection system

even jumper bars can be plugged into the protected side of the arrester and thus transmit signals. As the arresters are only enclosed on one side for space-saving reasons, a covering plate should be used at the end of every SPD block.



DCO RK

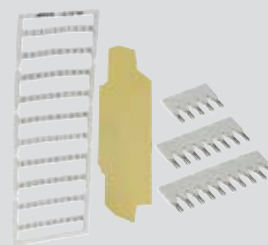
DEHNconnect RK is available in two performance classes:

DCO RK M ...:

Surge arrester with energy-coordinated protection stages

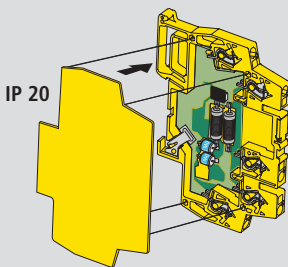
DCO RK E (D) ...:

Surge arrester with diodes only, for improving the electromagnetic compatibility (EMC) of terminal systems



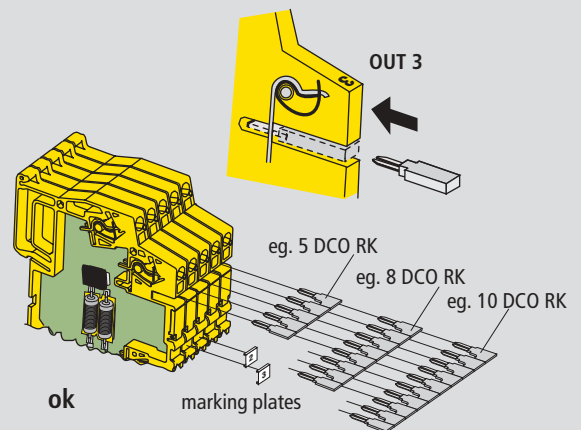
DCO RK Accessories

A wide range of accessories like jumper bars, marking plates or covering plates complete DCO RK to a system easy to operate, which has been designed especially for use in industrial systems.



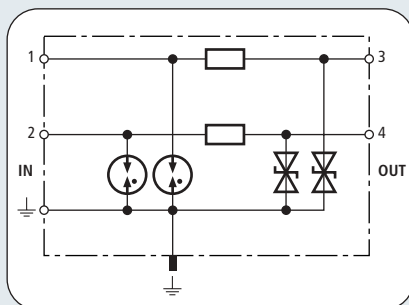
DCO RK with covering plate

In order to minimise the width, the enclosure has no wall on one side. For protection against electrical shock, the arrester can be closed with a covering plate (accessories). If several devices are arranged next to each other, one covering plate could be sufficient.

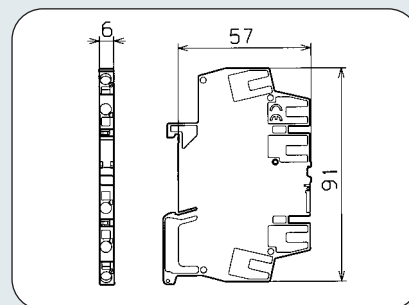


Application of the jumper bars

State controls of switch contacts in industrial environments are often fed by a common power supply. Using several DCO RK units the wiring can be minimised by bridging the feeding signal on the protected side (accessories).



Energy-coordinated gas discharge tubes and diodes to earth



Dimension drawing DCO RK ME

- Standard protection in modular terminal blocks
- Low series impedance
- For use according to the lightning protection zones concept at boundaries 0_B – 2 and higher

2-stage surge arrester for protection of 2 single wires with common reference potential as well as unbalanced interfaces.

	DCO RK ME 12	DCO RK ME 24	DCO RK ME 48	DCO RK ME 110
Nominal voltage U_N	12 V	24 V	48 V	110 V
Max. continuous dc voltage U_c	14 V	33 V	55 V	170 V
Max. continuous ac voltage U_c	9.5 V	23 V	38.5 V	120 V
Nominal current I_L	0.5 A	0.5 A	0.5 A	0.5 A
C2 Total nominal discharge current (8/20) I_n	10 kA	10 kA	10 kA	10 kA
C2 Nominal discharge current (8/20) per line I_n	5 kA	5 kA	5 kA	5 kA
Voltage protection level line-line at I_n C2 U_p	≤ 55 V	≤ 110 V	≤ 175 V	≤ 500 V
Voltage protection level line-PG at I_n C2 U_p	≤ 40 V	≤ 65 V	≤ 100 V	≤ 270 V
Voltage protection level line-line at 1 kV/μs C3 U_p	≤ 36 V	≤ 90 V	≤ 160 V	≤ 460 V
Voltage prot. level line-PG at 1 kV/μs: line/Pg U_p	≤ 19 V	≤ 45 V	≤ 80 V	≤ 230 V
Coordination characteristics KK	X/1	X/1	X/1	X/2
Series impedance per line	1.8 Ohm	1.8 Ohm	1.8 Ohm	1.8 Ohm
Bandwidth line-PG f_G	2.5 MHz	6 MHz	10 MHz	16 MHz
Parasitic capacitance line-line C	≤ 1.2 nF	≤ 0.5 nF	≤ 0.3 nF	≤ 0.2 nF
Parasitic capacitance line-PG C	≤ 2.4 nF	≤ 1 nF	≤ 0.6 nF	≤ 0.4 nF
Response time line-line t_a	≤ 1 ns	≤ 1 ns	≤ 1 ns	≤ 1 ns
Response time line-PG t_a	≤ 1 ns	≤ 1 ns	≤ 1 ns	≤ 1 ns
Operating temperature range	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C
Degree of protection	IP 00, with cover IP 20	IP 00, with cover IP 20	IP 00, with cover IP 20	IP 00, with cover IP 20
Mounting on	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715
Connection input/output	spring / spring	spring / spring	spring / spring	spring / spring
Cross-sectional area, solid	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²
Cross-sectional area, flexible	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²
Earthing via	DIN rail / terminal	DIN rail / terminal	DIN rail / terminal	DIN rail / terminal
Enclosure material	polyamide PA 6.6	polyamide PA 6.6	polyamide PA 6.6	polyamide PA 6.6
Colour	yellow	yellow	yellow	yellow
Test standards	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21

Ordering information				
Type	DCO RK ME 12	DCO RK ME 24	DCO RK ME 48	DCO RK ME 110
Part No.	919 920	919 921	919 922	919 923
Packing unit	1 pc(s)	1 pc(s)	1 pc(s)	1 pc(s)

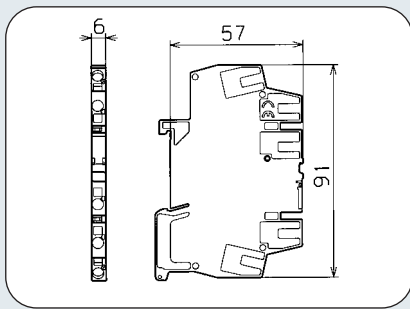
Accessory Part for DEHNconnect RK



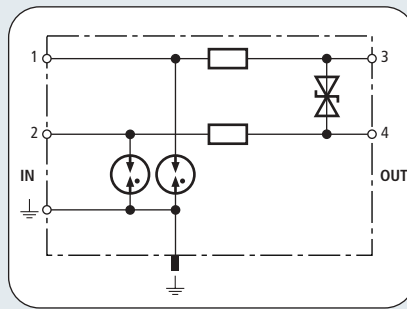
Covering Plate

For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979



Dimension drawing DCO RK MD 12 / MD 24



Protective circuit free of leakage currents to earth, energy-coordinated.



- Standard protection in modular terminal blocks
- Low series impedance
- For use according to the lightning protection zones concept at boundaries $O_B - 2$ and higher

2-stage surge arrester for protection of a floating two-core conductor as well as balanced interfaces.

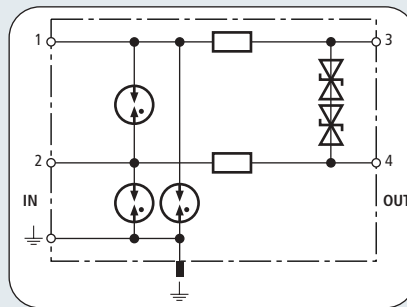
	DCO RK MD 12	DCO RK MD 24
Nominal voltage U_N	12 V	24 V
Max. continuous dc voltage U_c	14 V	33 V
Max. continuous ac voltage U_c	9.5 V	23 V
Nominal current I_L	0.5 A	0.5 A
C2 Total nominal discharge current (8/20) I_n	10 kA	10 kA
C2 Nominal discharge current (8/20) per line I_n	5 kA	5 kA
Voltage protection level line-line at I_n C2 U_p	≤ 25 V	≤ 50 V
Voltage protection level line-PG at I_n C2 U_p	≤ 750 V	≤ 750 V
Voltage protection level line-line at $1 \text{ kV}/\mu\text{s}$ C3 U_p	≤ 19 V	≤ 45 V
Voltage protection level line-PG at $1 \text{ kV}/\mu\text{s}$: line/Pg U_p	≤ 650 V	≤ 650 V
Coordination characteristics KK	X/1	X/1
Series impedance per line	1.8 Ohm	1.8 Ohm
Bandwidth line-line f_G	2.5 MHz	6 MHz
Parasitic capacitance line-line C	≤ 2.4 nF	≤ 1 nF
Parasitic capacitance line-PG C	≤ 5 pF	≤ 5 pF
Response time line-line t_a	≤ 1 ns	≤ 1 ns
Response time line-PG t_a	≤ 100 ns	≤ 100 ns
Operating temperature range	$-40^\circ\text{C} \dots +80^\circ\text{C}$	$-40^\circ\text{C} \dots +80^\circ\text{C}$
Degree of protection	IP 00, with cover IP 20	IP 00, with cover IP 20
Mounting on	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715
Connection input/output	spring / spring	spring / spring
Cross-sectional area, solid	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²
Cross-sectional area, flexible	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²
Earthing via	DIN rail / terminal	DIN rail / terminal
Enclosure material	polyamide PA 6.6	polyamide PA 6.6
Colour	yellow	yellow
Test standards	IEC 61643-21	IEC 61643-21
Ordering information		
Type	DCO RK MD 12	DCO RK MD 24
Part No.	919 940	919 941
Packing unit	1 pc(s)	1 pc(s)

Accessory Part for DEHNconnect RK

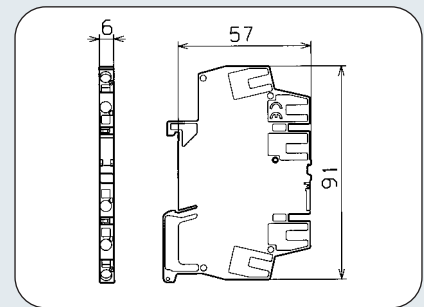
Covering Plate
For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979





Protective circuit, free of leakage currents to earth, energy-coordinated



Dimension DCO RK MD 48

- Standard protection in modular terminal blocks
- Extremely low series impedance
- For use according to the lightning protection zones concept at boundaries 0_B – 2 and higher

2-stage surge arrester for protection of a floating two-core conductor as well as balanced interfaces up to 1.7 A.

DCO RK MD 48

Nominal voltage U_N	48 V
Max. continuous dc voltage U_c	55 V
Max. continuous ac voltage U_c	38.5 V
Nominal current I_L	1.7 A
C2 Total nominal discharge current (8/20) I_n	10 kA
C2 Nominal discharge current (8/20) per line I_n	5 kA
Voltage protection level line-line at I_n C2 U_p	≤ 100 V
Voltage protection level line-PG at I_n C2 U_p	≤ 750 V
Voltage protection level line-line at 1 kV/μs C3 U_p	≤ 70 V
Voltage protection level line-PG at 1 kV/μs: line/Pg U_p	≤ 650 V
Coordination characteristics KK	X/1
Series impedance per line	0.4 Ohm
Bandwidth line-line f_G	10 MHz
Parasitic capacitance line-line C	≤ 0.6 nF
Parasitic capacitance line-PG C	≤ 10 pF
Response time line-line t_a	≤ 1 ns
Response time line-PG t_a	≤ 100 ns
Operating temperature range	-40°C...+80°C
Degree of protection	IP 00, with cover IP 20
Mounting on	35 mm DIN rail acc. to EN 60715
Connection input/output	spring / spring
Cross-sectional area, solid	0.08 - 2.5 mm ²
Cross-sectional area, flexible	0.08 - 2.5 mm ²
Earthing via	DIN rail / terminal
Enclosure material	polyamide PA 6.6
Colour	yellow
Test standards	IEC 61643-21

Ordering information	
Type	DCO RK MD 48
Part No.	919 942
Packing unit	1 pc(s)

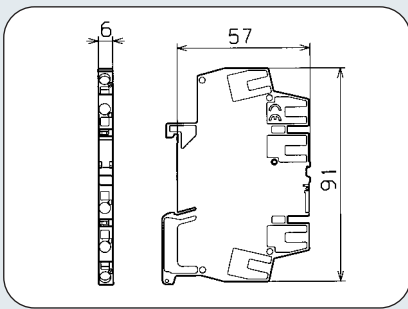
Accessory Part for DEHNconnect RK



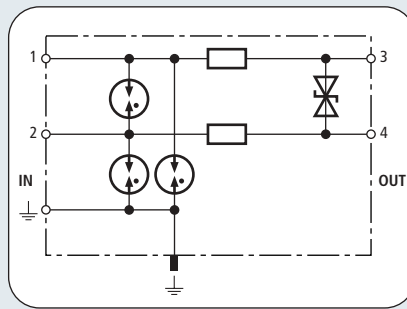
Covering Plate

For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979



Dimension drawing DCO RK MD 110



Protection circuit, free of leakage currents to earth, energy-coordinated.



- Standard protection in modular terminal blocks
- Low series impedance
- For use according to the lightning protection zones concept at boundaries $O_B - 2$ and higher

2-stage surge arrester for protection of a floating two-core conductor, telecommunication.

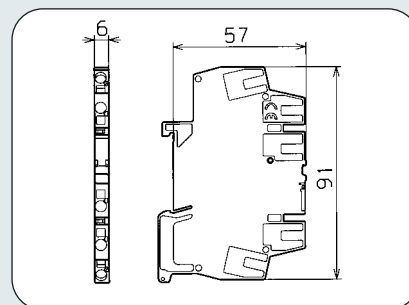
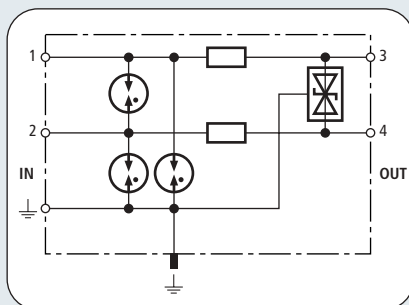
DCO RK MD 110	
Nominal voltage U_N	110 V
Max. continuous dc voltage U_c	170 V
Max. continuous ac voltage U_c	120 V
Nominal current I_L	0.5 A
C2 Total nominal discharge current (8/20) I_n	10 kA
C2 Nominal discharge current (8/20) per line I_n	5 kA
Voltage protection level line-line at I_n C2 U_p	≤ 260 V
Voltage protection level line-PG at I_n C2 U_p	≤ 750 V
Voltage protection level line-line at 1 kV/ μ s C3 U_p	≤ 230 V
Voltage protection level line-PG at 1 kV/ μ s: line/Pg U_p	≤ 650 V
Coordination characteristics KK	X/2
Series impedance per line	1.8 Ohm
Bandwidth line-line f_G	16 MHz
Parasitic capacitance line-line C	≤ 0.4 nF
Parasitic capacitance line-PG C	≤ 5 pF
Response time line-line t_a	≤ 1 ns
Response time line-PG t_a	≤ 100 ns
Operating temperature range	-40°C...+80°C
Degree of protection	IP 00, with cover IP 20
Mounting on	35 mm DIN rail acc. to EN 60715
Connection input/output	spring / spring
Cross-sectional area, solid	0.08 - 2.5 mm ²
Cross-sectional area, flexible	0.08 - 2.5 mm ²
Earthing via	DIN rail / terminal
Enclosure material	polyamide PA 6.6
Colour	yellow
Test standards	IEC 61643-21
Ordering information	
Type	DCO RK MD 110
Part No.	919 943
Packing unit	1 pc(s)

Accessory Part for DEHNconnect RK

Covering Plate
 For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979





- Low self-capacitance
- Very good transmission performance
- For use according to the lightning protection zones concept at boundaries 0_B – 2 and higher

The capacity of the protective circuit can be minimised by combining several diodes to one matrix.

Dimension drawing DCO RK MD HF

2-stage surge arrester for protection of balanced and unbalanced interfaces with extra-low voltages. Also suitable for high transmission rates. For shielded bus lines, SAK shield connection systems should be used.

DCO RK MD HF 5

Nominal voltage U_N	5 V
Max. continuous dc voltage U_c	6.0 V
Max. continuous ac voltage U_c	4.2 V
Nominal current I_L	0.1 A
C2 Total nominal discharge current (8/20) I_n	10 kA
C2 Nominal discharge current (8/20) per line I_n	5 kA
Voltage protection level line-line at I_n C2 U_p	≤ 27 V
Voltage protection level line-PG at I_n C2 U_p	≤ 50 V
Voltage protection level line-line at 1 kV/ μ s C3 U_p	≤ 14 V
Voltage protection level line-PG at 1 kV/ μ s: line/Pg U_p	≤ 14 V
Coordination characteristics KK	X/1
Series impedance per line	1.0 Ohm
Bandwidth line-line f_G	250 MHz
Bandwidth line-PG f_G	180 MHz
Parasitic capacitance line-line C	≤ 19 pF
Parasitic capacitance line-PG C	≤ 16 pF
Response time line-line t_a	≤ 1 ns
Response time line-PG t_a	≤ 1 ns
Operating temperature range	-40°C...+80°C
Degree of protection	IP 00 with cover IP 20
Mounting on	35 mm DIN rail acc. to EN 60715
Connection input/output	spring / spring
Cross-sectional area, solid	0.08 - 2.5 mm ²
Cross-sectional area, flexible	0.08 - 2.5 mm ²
Earthing via	DIN rail / terminal
Enclosure material	thermoplastic PA 6.6
Colour	yellow
Test standards	IEC 61643-21

Ordering information

Type	DCO RK MD HF 5
Part No.	919 970
Packing unit	1 pc(s)

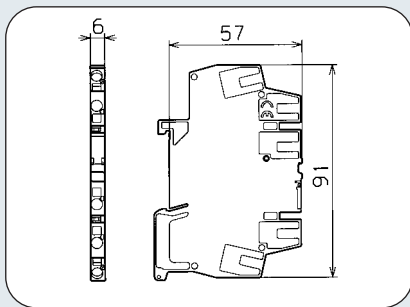
Accessory Part for DEHNconnect RK



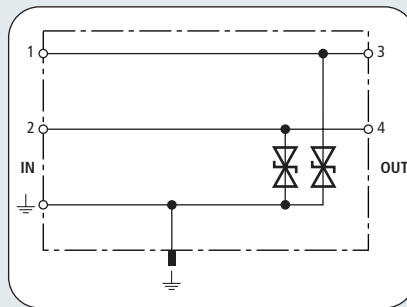
Covering Plate

For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979



Dimension drawing DCO RK E



Powerful diodes limit surges to earth.



- Protection in modular terminal blocks
- High nominal current
- For use according to the lightning protection zones concept at boundaries 1 – 2 and higher

Finely limiting surge protection for 2 single wires with common reference potential as well as unbalanced interfaces. Suitable for energy coordination with upstream BLITZDUCTOR® VT GS surge arrester.

	DCO RK E 12	DCO RK E 24	DCO RK E 48	DCO RK E 60
Nominal voltage U_N	12 V	24 V	48 V	60 V
Max. continuous dc voltage U_c	13 V	28 V	58 V	70 V
Max. continuous ac voltage U_c	9 V	19.5 V	41 V	49.5 V
Nominal current I_L	10 A	10 A	10 A	10 A
C1 Total nominal discharge current (8/20) I_n	0.8 kA	0.6 kA	0.3 kA	0.24 kA
C1 Nominal discharge current (8/20) per line I_n	0.4 kA	0.3 kA	0,15 kA	0.12 kA
Voltage protection level line-line at I_n C1 U_p	≤ 50 V	≤ 96 V	≤ 180 V	≤ 220 V
Voltage protection level line-PG at I_n C1 U_p	≤ 25 V	≤ 48 V	≤ 90 V	≤ 110 V
Voltage protection level line-line at $1 \text{ kV}/\mu\text{s}$ C3 U_p	≤ 36 V	≤ 76 V	≤ 156 V	≤ 190 V
Voltage prot. level line-PG at $1 \text{ kV}/\mu\text{s}$: line/Pg U_p	≤ 18 V	≤ 38 V	≤ 78 V	≤ 95 V
Coordination characteristics KK	4/1	4/1	4/1	4/1
Bandwidth line-PG f_G	2.5 MHz	5.5 MHz	11 MHz	14 MHz
Parasitic capacitance line-line C	≤ 1.2 nF	≤ 0.6 nF	≤ 0.3 nF	≤ 0.25 nF
Parasitic capacitance line-PG C	≤ 2.5 nF	≤ 1.2 nF	≤ 0.6 nF	≤ 0.5 nF
Response time line-PG t_a	≤ 1 ns	≤ 1 ns	≤ 1 ns	≤ 1 ns
Operating temperature range	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C	-40°C...+80°C
Degree of protection	IP 00, with cover IP 20	IP 00, with cover IP 20	IP 00, with cover IP 20	IP 00, with cover IP 20
Mounting on	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715	35 mm DIN rail acc. to EN 60715
Connection input/output	spring / spring	spring / spring	spring / spring	spring / spring
Cross-sectional area, solid	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²
Cross-sectional area, flexible	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²	0.08 - 2.5 mm ²
Earthing via	DIN rail / terminal	DIN rail / terminal	DIN rail / terminal	DIN rail / terminal
Enclosure material	polyamide PA 6.6	polyamide PA 6.6	polyamide PA 6.6	polyamide PA 6.6
Colour	yellow	yellow	yellow	yellow
Test standards	IEC 61643-21	IEC 61643-21	IEC 61643-21	IEC 61643-21

Ordering information				
Type	DCO RK E 12	DCO RK E 24	DCO RK E 48	DCO RK E 60
Part No.	919 987	919 988	919 989	919 990
Packing unit	1 pc(s)	1 pc(s)	1 pc(s)	1 pc(s)

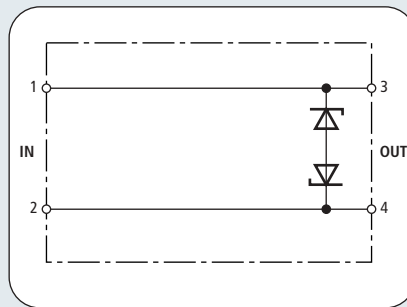
Accessory Part for DEHNconnect RK

Covering Plate

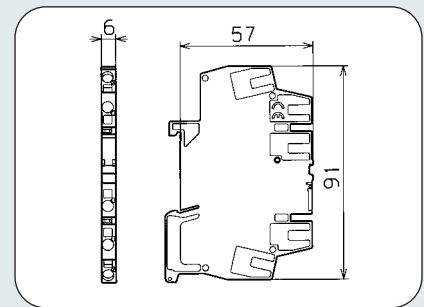
For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979





Powerful diodes limit surges among the signal lines.



Dimension drawing DCO RK D

- EMC protection in modular terminal blocks
- High nominal current
- For use according to the lightning protection zones concept at boundaries 1 – 2 and higher

Surge protection for output digital modules by SIEMENS-SPS S7-300 (lab-tested). The terminal allows an increased EMC protection. No connection to PG.

DCO RK D 5 24

Nominal voltage U_N	+24 V / -5 V
Max. continuous dc voltage U_c	+30 V / -6 V
Nominal current I_L	10 A
C1 Total nominal discharge current (8/20) I_n	0.3 kA
C1 Nominal discharge current (8/20) per line I_n	0.3 kA
Voltage protection level line-line at I_n C1 U_p	≤ 70 V
Voltage protection level line-line at 1 kV/ μ s C3 U_p	≤ 45 V
Coordination characteristics KK	4/1
Bandwidth line-line f_G	3.5 MHz
Parasitic capacitance line-line C	≤ 2 nF
Response time line-line t_a	≤ 1 ns
Operating temperature range	-40°C...+80°C
Degree of protection	IP 00, with cover IP 20
Mounting on	35 mm DIN rail acc. to EN 60715
Connection input/output	spring / spring
Cross-sectional area, solid	0.08 - 2.5 mm ²
Cross-sectional area, flexible	0.08 - 2.5 mm ²
Enclosure material	polyamide PA 6.6
Colour	yellow
Test standards	IEC 61643-21

Ordering information	
Type	DCO RK D 5 24
Part No.	919 986
Packing unit	1 pc(s)

Accessory Part for DEHNconnect RK



Covering Plate

For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979

Accessory Part for DEHNconnect RK

Covering Plate

For DCO RK.

Type	Enclosure material	Colour	PU pc(s)	Part No.
AD DCO RK GE	polyamide PA 6.6	yellow	1	919 979



Quick Marking System

Two plates with plate Nos. 1-50 for DCO RK

Type	Material	PU pc(s)	Part No.
BS 1 50 DCO RK	plastic	1	919 977



Accessory Part for DEHNconnect RK

Jumper Bar

Multipole unit for DCO RK

Type	Poles	PU pc(s)	Part No.
KB 5 DCO RK	5	25	919 885



Jumper Bar

Multipole unit for DCO RK

Type	Poles	PU pc(s)	Part No.
KB 8 DCO RK	8	25	919 888



Jumper Bar

Multipole unit for DCO RK

Type	Poles	PU pc(s)	Part No.
KB 10 DCO RK	10	25	919 880

