

3-stage protection with screw connection

Surge protection terminals with the tried-and-tested screw connection in the DKU series are characterised by their high level of protection concentrated in a compact design.

They are suitable for installing in the narrowest of places in automated process, industrial and building services systems. The three-stage surge protection terminals operate with gas discharge tubes, varistors, suppression diodes (TAZ) or decoupling inductances. The gas discharge tubes discharge high currents reliably; the varistors and suppression diodes absorb the residual voltages. The rated current for the DK4U and DK5U is max. 300 mA and for the DK6U max. 1 A. The DKU series comprises the DKU, DK4U, DK5U and DK6U, which are 6, 8 or 12 mm wide.

Type **DK4U** contains individual components such as varistors, gas discharge tubes or suppression diodes. Two types of varistor (MOV) are used: Type S14 is intended for lower levels of interference. It is suitable for interference protection circuits in solenoid valves or switching contacts. Type S20 is reserved for more demanding situations.

The fine gradation of the voltage varistors permits the use of all conventional rated voltages. This results in a wide range of variations. The preferred types are varistors that are used for rated voltages of 24, 48, 115 and 230 V.

Two types of gas discharge tube are used: **Gas discharge tubes** (GDT) up to 10 kA are suitable for integrating into instrumentation and control circuits, those up to 20 kA for higher signal and mains voltages.

The **suppression diodes** (Tranzorb diodes) differ in terms of voltage and are suitable for discharging small and fast transients. The tightening torque for all DKU according to IEC 947 is 0.5 Nm.

RC combinations

RC combinations can be used as suppression circuits for contactors and solenoid valves, or for increasing the interference immunity of long AC lines. They exhibit very good properties with regard to limiting the opening surges, reducing the rate of voltage variation and shortening break times. Weidmüller RC combinations may be used in both AC and DC circuits.

RD combinations

RD combinations are used with DC-operated equipment. Compared to a diode circuit, the resistance of the resistor / diode combination results in a shorter recovery time. RD combinations exhibit excellent suppression effects because the resistance limits the flow of current and, as a result, the

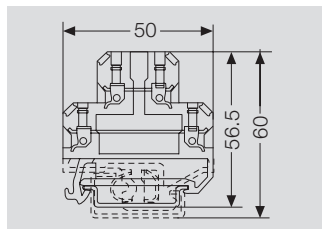
switching times are shorter. RD combinations are also less expensive than RC combinations.

If the length of the recovery time of the connected device is irrelevant, a diode circuit is preferable. If the effect on the response times of the device to be connected are to be minimised, suppression combinations with varistors or RC combination are advantageous.

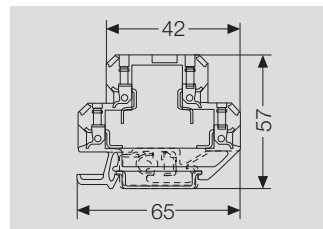
WPO 4

The Weidmüller WPO 4 terminal enables the retrofitting of electronic components like diodes, RC combinations, varistors or gas discharge tubes. As the protective elements are simply plugged in, specific protective circuits can be set up inexpensively in situ. All components are likewise easy to replace.

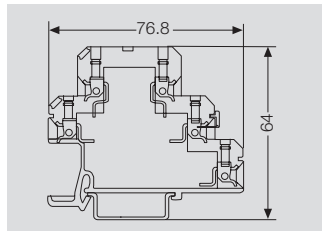
DK 4 U Varistor gas discharge tube



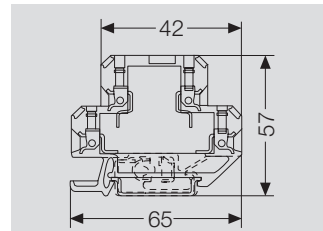
DK 4 U with suppression diode



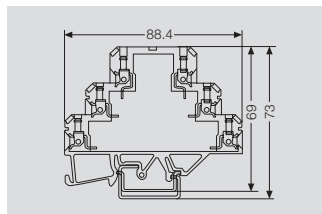
DK 5 U



DKU with combination circuit



DK 6 U



Surge protection for instrumentation and control systems

3-stage protection with screw connection

Slimline surge protection terminal with screw connection

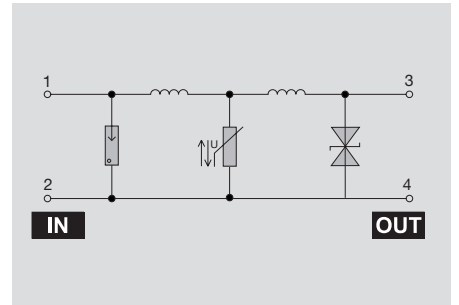
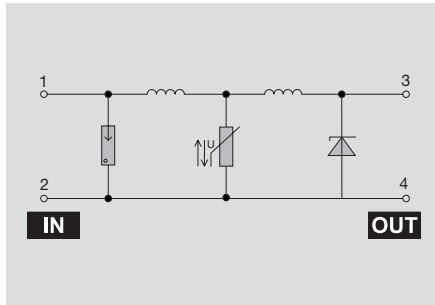
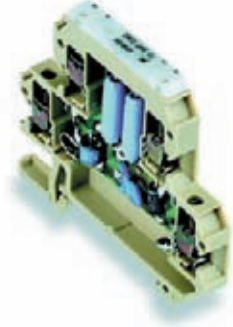
DKU 24 V DC 0.3 A

Protection for binary signals



DKU 48 V UC 0.3 A

Protection for binary signals



Technical data

Technical data	
Rated voltage (AC)	
Rated voltage (DC)	
max. continuous voltage, U _c (AC)	
Operating current, I _{max}	
Volume resistivity	
Gas discharge tube	
Varistor	
Suppression diodes	
Cut-off frequency (-3 dB) at load impedance	
Discharge current, max. (8/20 μs)	
Protection level on output side sym., input 1 kV/μs, typ.	
Protection level on output side sym., input 8/20 μs, typ.	
Protection level on output side unsym., input 1kV/μs, typ.	
Protection level on output side unsym., input 8/20 μs, typ.	
Design	
Type of connection	
Ambient temperature (operational)	
Storage temperature	

24 V
28 V
0.3 A
3.00 Ω
yes
yes
yes
500.0 kHz 240 Ω
5 kA
35 V
45 V
35 V
45 V
terminal
Screw connection
-25 ... 60°C
-25 ... 85°C

48 V
48 V
54 V
0.3 A
3.00 Ω
yes
yes
yes
1000.0 kHz 480 Ω
7 kA
82 V
110 V
82 V
180 V
terminal
Screw connection
-25 ... 60°C
-25 ... 85°C

Type of connection	
Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm

2.5 / 0.5 / 4
65 x 6 x 60

2.5 / 0.5 / 4
65 x 6 x 60

Note

Ordering data

Type	Qty.	Order No.
DKU 35 24VDC In:0,22A	10	8015810000

DKU 35 height 57mm

Type	Qty.	Order No.
DKU 35 48VUC In:0,22A	10	8019290000

Note

Accessories

Note
End plate AP DKT4 PA: 0687560000

End plate AP DKT4 PA: 0687560000

End plate AP DKT4 PA: 0687560000

3-stage protection with screw connection

Slimline surge protection terminal with screw connection

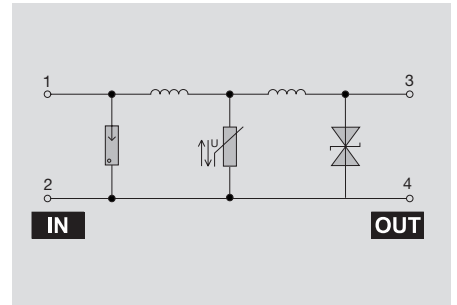
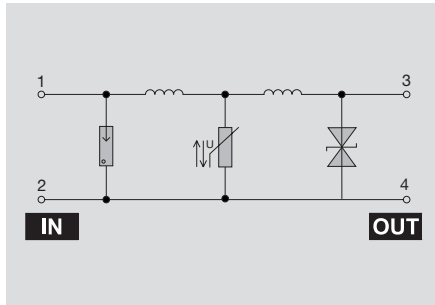
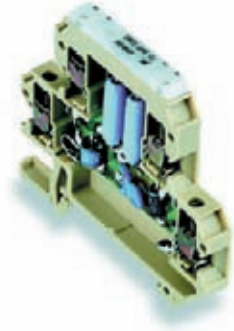
DKU 115 V UC 0.3 A

Protection for binary signals



DKU 230 V UC 0.3 A

Protection for binary signals



Technical data

Technical data	
Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	122 V
Operating current, I _{max}	0.3 A
Volume resistivity	3.00 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	1.0 MHz 50 Ω
Discharge current, max. (8/20 μs)	7 kA
Protection level on output side sym., input 1 kV/μs, typ.	180 V
Protection level on output side sym., input 8/20 μs, typ.	220 V
Protection level on output side unsym., input 1kV/μs, typ.	180 V
Protection level on output side unsym., input 8/20 μs, typ.	220 V
Design	terminal
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	240 V
Operating current, I _{max}	0.3 A
Volume resistivity	3.00 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	1.0 MHz 2200Ω
Discharge current, max. (8/20 μs)	7 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	520 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	520 V
Design	terminal
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	240 V
Operating current, I _{max}	0.3 A
Volume resistivity	3.00 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	1.0 MHz 2200Ω
Discharge current, max. (8/20 μs)	7 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	520 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	520 V
Design	terminal
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	65 x 6 x 60

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	65 x 6 x 60

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	65 x 12 x 60

Note

Ordering data

Type	Qty.	Order No.
DKU 35 115VUC 0,3A	10	8019310000

Type	Qty.	Order No.
DKU 35 115VUC 0,3A	10	8019310000

Type	Qty.	Order No.
DKU 35 230VUC 0,3A	10	8019330000

Note

DKU 35 height 57mm

DKU 35 height 57mm

Accessories

Note	End plate AP DKT4 PA: 0687560000
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Note	End plate AP DKT4 PA: 0687560000
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Note	End plate AP DKT4 PA: 0687560000
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Surge protection for instrumentation and control systems

3-stage protection with screw connection

Slimline surge protection terminal with screw connection

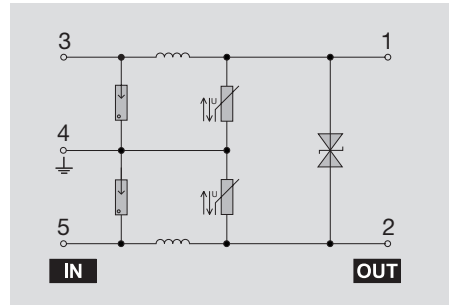
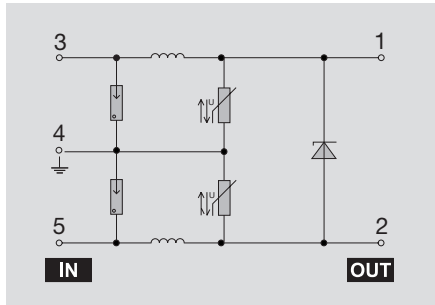
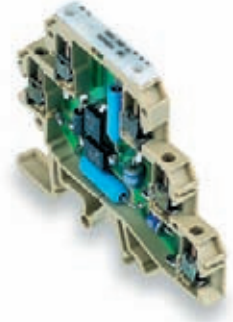
DKU DK5 24 V DC 0.3 A

Protection for analogue signals



DKU DK5 48 V UC 0.3 A

Protection for analogue signals



Technical data

Technical data

Rated voltage (AC)
 Rated voltage (DC)
 max. continuous voltage, U_c (AC)
 Operating current, I_{max}
 Volume resistivity
 Gas discharge tube
 Varistor
 Suppression diodes
 Cut-off frequency (-3 dB) at load impedance
 Discharge current, max. (8/20 μs)
 Protection level on output side sym., input 1 kV/μs, typ.
 Protection level on output side sym., input 8/20 μs, typ.
 Protection level on output side unsym., input 1kV/μs, typ.
 Protection level on output side unsym., input 8/20 μs, typ.
 Design
 Type of connection
 Ambient temperature (operational)
 Storage temperature

24 V
 28 V
 0.3 A
 3.00 Ω
 yes
 yes
 yes
 400.0 kHz 240 Ω
 5 kA
 30 V
 45 V
 35 V
 45 V
 terminal
 Screw connection
 -25 ... 60°C
 -25 ... 85°C

48 V
 48 V
 54 V
 0.3 A
 3.00 Ω
 yes
 yes
 yes
 400.0 kHz 240 Ω
 7 kA
 82 V
 110 V
 110 V
 180 V
 terminal
 Screw connection
 -25 ... 60°C
 -25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.) mm²
 Length x width x height mm

2.5 / 0.5 / 4
 76.8 x 6 x 72

2.5 / 0.5 / 4
 76.8 x 6 x 72

Note

Ordering data

Type	Qty.	Order No.
DKU DK5 24VDC 0,3A	10	8238340000

Type	Qty.	Order No.
DKU DK5 48VUC 0,3A	10	8262470000

Note

DKU DK5 TS35, 68 mm high

DKU DK5 TS35, 68 mm high

Accessories

Note

End plate
 AP DK5 PA BE: 4036780000

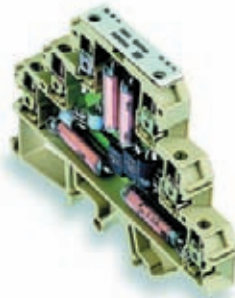
End plate
 AP DK5 PA BE: 4036780000

3-stage protection with screw connection

Slimline surge protection terminal with screw connection

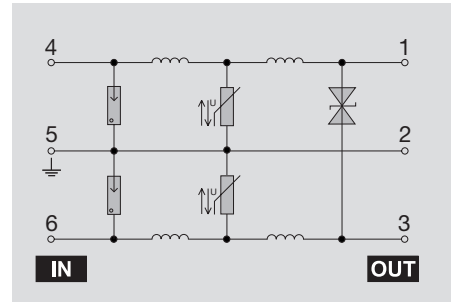
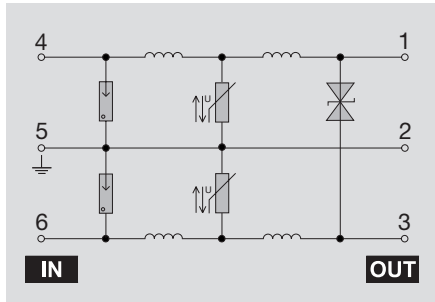
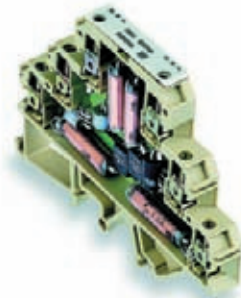
DKU DK6 120 V UC 1 A

Protection for analogue signals



DKU DK6 230 V UC 1 A

Protection for analogue signals



Technical data

Technical data	
Rated voltage (AC)	120 V
Rated voltage (DC)	120 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	1 A
Volume resistivity	0.30 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	22.0 kHz 120 Ω
Discharge current, max. (8/20 μs)	7 kA
Protection level on output side sym., input 1 kV/μs, typ.	220 V
Protection level on output side sym., input 8/20 μs, typ.	290 V
Protection level on output side unsym., input 1kV/μs, typ.	290 V
Protection level on output side unsym., input 8/20 μs, typ.	350 V
Design	terminal
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	120 V
Rated voltage (DC)	120 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	1 A
Volume resistivity	0.30 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	22.0 kHz 120 Ω
Discharge current, max. (8/20 μs)	7 kA
Protection level on output side sym., input 1 kV/μs, typ.	220 V
Protection level on output side sym., input 8/20 μs, typ.	290 V
Protection level on output side unsym., input 1kV/μs, typ.	290 V
Protection level on output side unsym., input 8/20 μs, typ.	350 V
Design	terminal
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	240 V
Operating current, I _{max}	1 A
Volume resistivity	0.30 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	22.0 kHz 120 Ω
Discharge current, max. (8/20 μs)	7 kA
Protection level on output side sym., input 1 kV/μs, typ.	600 V
Protection level on output side sym., input 8/20 μs, typ.	800 V
Protection level on output side unsym., input 1kV/μs, typ.	820 V
Protection level on output side unsym., input 8/20 μs, typ.	950 V
Design	terminal
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	88.4 x 8 x 73

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	88.4 x 8 x 73

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	88.4 x 8 x 73

Note

Ordering data

Type	Qty.	Order No.
DKU DK6 120VAC 1,0A	10	8262480000

Type	Qty.	Order No.
DKU DK6 230VAC 1,0A	10	8263760000

Note

DK6U TS35, 69 mm high

DK6U TS35, 69 mm high

Accessories

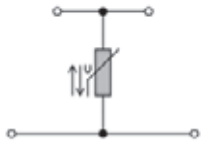
Note

End plate AP DK6 PA BE: 8324560000

End plate AP DK6 PA BE: 8324560000

Surge protection for instrumentation and control systems

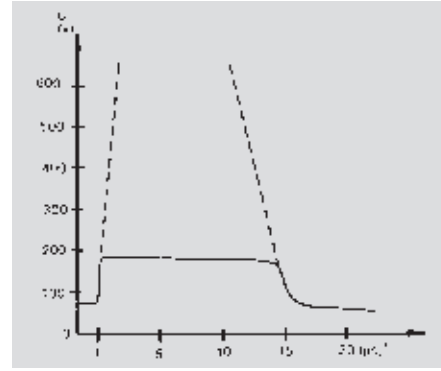
DK-SERIES with varistor in terminal design



Varistors

Metal-oxide varistors are used as varistors. These are approved for the maximum sinusoidal operating AC voltage indicated on the component. Any voltage exceeding the indicated voltage is safely discharged. Varistors can be used for medium to large ratings.

DK 4 U S 20 K 130



F

Rated data DK 4 U

Max. operating voltage at varistor Max. energy and surge current for 8/20 µs impulse Max. energy and surge current for 10 000 8/20 µs impulses Max. varistor voltage at 10 A Max. varistor voltage at 1 mA

Type	U _{eff} V	U ₋ V	Energy J	Surge cur. A	Energy J	Surge cur. A	Disch. cur. V	V	Capacity pF	Order No. TS 32	Order No. TS 35
S 14	11	14	1,6	1000	0,07	75	36	18	18000	on request	9401400000
	14	18	2,0	1000	0,08	75	42	22	15000	on request	on request
	17	22	2,7	1000	0,11	75	52	27	10000	on request	on request
	20	26	3,3	1000	0,13	75	65	33	7500	on request	on request
	25	31	3,7	1000	0,15	75	75	39	6500	on request	9401440000
	30	38	4,4	1000	0,17	75	90	47	5500	9401050000	9401450000
	35	45	5,2	1000	0,23	75	110	56	4500	on request	on request
	40	56	6,8	1000	0,27	75	125	68	3300	on request	on request
	50	65	27,0	4500	0,6	150	135	82	2900	on request	on request
	60	85	30,0	4500	0,7	150	155	100	2400	on request	9401490000
Preferred types 24 V	75	100	38,0	4500	0,8	150	185	120	1900	on request	on request
	95	125	45,0	4500	1,0	150	230	150	1500	on request	on request
	130	170	55,0	4500	1,3	150	315	205	1000	9401120000	9401520000
	140	180	60,0	4500	1,5	150	330	220	1000	on request	on request
Preferred types 48 V	150	200	65,0	4500	1,5	150	350	240	900	on request	on request
	175	225	68,0	4500	1,6	150	420	270	750	on request	on request
	230	300	85,0	4500	2,1	150	560	360	550	on request	on request
	250	320	92,0	4500	2,4	150	610	390	500	on request	on request
	275	350	100,0	6500	2,5	190	660	430	450	9401180000	on request
Preferred types 115 V	300	385	110,0	6500	2,6	190	740	470	400	on request	9401590000
S 20	11	14	3,0	2000	0,12	125	32	18	37000	on request	on request
	14	18	4,0	2000	0,15	125	38	22	30000	on request	on request
	17	22	5,6	2000	0,19	125	48	27	22000	on request	on request
	20	26	6,6	2000	0,24	125	60	33	17000	on request	on request
	25	31	7,8	2000	0,28	125	70	39	15000	on request	9401640000
	30	38	9,0	2000	0,35	125	85	47	13000	9401250000	9401650000
	35	45	10,8	2000	0,40	125	100	56	11000	on request	on request
	40	56	14,0	2000	0,48	125	120	68	7000	on request	on request
	50	65	36,0	6500	0,5	190	120	82	5500	on request	on request
	60	85	45,0	6500	0,7	190	150	100	4800	on request	on request
Preferred types 24 V	75	100	55,0	6500	0,8	190	180	120	3800	on request	on request
	95	125	65,0	6500	1,0	190	220	150	3000	on request	on request
	130	170	80,0	6500	1,4	190	300	205	2000	on request	on request
	140	180	90,0	6500	1,5	190	320	220	2000	on request	on request
Preferred types 48 V	150	200	95,0	6500	1,6	190	340	240	1800	on request	on request
	175	225	110,0	6500	1,8	190	390	270	1600	on request	on request
	230	300	130,0	6500	2,4	190	550	360	1200	on request	on request
	250	320	140,0	6500	2,7	190	600	390	1000	on request	on request
	275	350	150,0	8000	2,9	300	640	430	900	9401380000	9401780000
Preferred types 115 V	300	385	160,0	8000	3,0	300	700	470	900	on request	on request

Overall width 12 mm

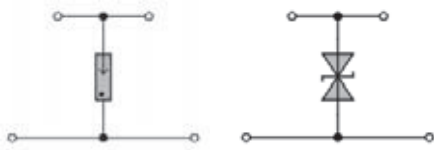
DK 4 U with gas discharge tube or suppression diode



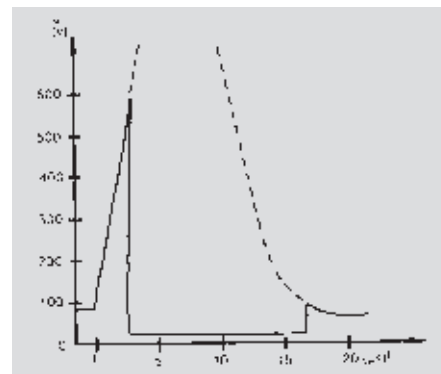
The process depends on the temporal slew rate of the surge and the rated DC response voltage. The rated DC response voltage printed on the side of the gas discharge tube. Once the gas is ignited a typical arcing voltage of 10 to 30 V is produced across the component. The ionisation of the gas causes the gas discharge tube to become low resistive, allowing a high follow current to flow. Suitable measures must be taken to limit the follow current, for example, by fusing.

Suppression diodes

Suppression diodes work on a similar principle to conventional Zener diodes. If the indicated breakdown voltage is exceeded, the diode conducts. Compared to Zener diodes, suppression diodes have a higher current carrying capacity and faster response times in the ps range.



DK 4 U gas discharge tube 5 kA, 90 V



Gas discharge tube

The so-called gas discharge tube consists of two electrodes spaced a defined distance apart, enclosed in a small glass or ceramic tube. Between the electrodes is an inert gas at a defined pressure. A voltage surge, which has a rise time of 1 kV/μs and reaches a peak of 10 kV, can be limited to approx. 600 ... 700 V. The gas-filled space changes from high resistance to low resistance.

**Rated data
DK 4 U**

Type		Rated DC sparkover voltage		Impulse sparkover voltage at 1 kV/μs	Maximum rated voltage		Capacity	Order No. TS 32	Order No. TS 35
		V	Tolerance %		U _{eff} V	U ₋ V			
10 kA (8/20 μs)	Preferred types 24 V	90 –	±25	< 600	35	50	≈2	on request	9400300000
	Preferred types 48 V	150 –	±15	< 600	60	90	≈2	on request	on request
		230 –	±20	< 600	95	135	≈2	on request	on request
20 kA (8/20 μs)									
	Preferred types 24 V	90 –	±25	< 600	35	50	≈2	9400400000	9400500000
		150 –	±15	< 600	60	90	≈2	on request	on request
	Preferred types 48 V	230 –	±15	< 650	95	135	≈2	on request	on request
	Preferred types 115 V	470 –	±15	<1000	200	280	≈2	on request	9400540000
Preferred types 230 V	600 –	±15	<1000	255	360	≈2	on request	9400550000	
DK 4 U with suppression diode		20 –	±10	< 60	–	28	≈3000	on request	8016960000
		48 AC	±10	< 146	53	74	≈1400	on request	on request
		115 AC	±10	< 300	135	178	≈700	on request	on request
		230 AC	±10	< 700	320	240	≈400	on request	8017020000
WDK 2,5 V with suppression diode		24 AC	±10	< 60	33 V	28 V	≈3000		8132760000

Surge protection for instrumentation and control systems

DK-SERIES with electronic components (other versions on request)



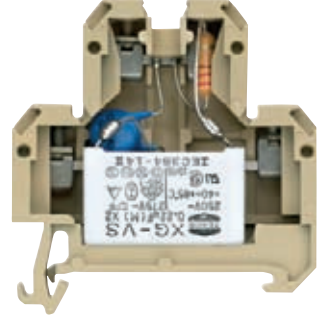
DK 4 RC

Arc suppression circuit for contactors and solenoid valves (AC)
Suppressor module for optos inputs



DK 4 RC-VDR

Arc suppression circuit
for contactors and solenoid valves (AC)



Technical data

Dimensions DK 4/WDK 2.5

Terminal width (+ fitting tolerance 0.2)
Insulation stripping length

Connection data

Screw connection, flexible DK 4
Screw connection, flexible WDK 2.5
Wire cross-section DK 4
Wire cross-section WDK 2.5

VDE rated data

Voltage 250 V~/300 V-
Diode current
Diode reverse voltage
Current of continuous current bar 10 A

Diode
Resistance 220 Ω
Capacitor 0,22 μF
Varistor (max. operating voltage) -
Gas discharge tube (rated DC sparkover voltage) -
max. discharge current (standard wave 8/20 μs) -

Note

Ordering data

Version	
	for TS 32
	for TS 35
	for TS 35

Note

Accessories

Mounting rail (2 m lengths)		
End bracket (thickness mm)		
End plate (thickness mm)		
Insulation plate		
Socket for test plug		
Test plug (pin diameter)		
Cross-connection (pre-assembled)	3-pole	
	4-pole	
	10-pole	
Cover plate		
Fixing screw (plastic)		
Cross-connection bridge	2-pole	
	3-pole	
	4-pole	
	75-pole	
Insulation profile		

Note

18 mm	
9 mm	
0,5 ... 4 mm ²	
-	
AWG 22 ... 12	
-	
250 V~/300 V-	
10 A	
220 Ω	
0,22 μF	
-	
-	
-	

Type	Order No.
DK 4 RC	0692160000
DK 4 RC/35	0053160000
WDK 2.5 RC	8065910000

Type	Qty.	Order No.
TS 32	-	0122800000
TS 35	-	0383400000
EWK 1 (8.5)	50	0206160000
EW 35 (8.5)	50	0383560000
AP PA (1.5)	20	0359260000
TSch 4	100	0363360000
StB 8.5	50	0215700000
PS (ø 2.3)	20	0180400000
Q 4	50	0336600000
Q 10	20	0368600000
BSK M 2.5 x 18	100	0303300000
QB 2 ¹⁾	100	0482700000
QB 3 ¹⁾	50	0482800000
QB 4 ¹⁾	50	0482900000
QB 75 blank	10	0526400000
IP	-	0526700000
StB 8.5	50	0215700000

¹⁾ When using QB: wire connection max. 2.5 mm²

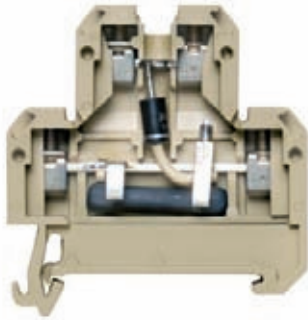
18 mm	
9 mm	
0,5 ... 4 mm ²	
-	
AWG 22 ... 12	
-	
24 V~/250 V	
-	
-	
10 A	10 A
-	
47 Ω	47 Ω
0,22 μF	0,22 μF
S 14	S 14
50 V	250 V
-	-

Type	Varistor	Order No.
DK 4 RC-VRS	50 V	on request
DK 4 RC-VRS	50 V	on request
DK 4 RC-VRS/35	250 V	on request
DK 4 RC-VRS/35	250 V	on request

Type	Qty.	Order No.
TS 32	-	0122800000
TS 35	-	0383400000
EWK 1 (8.5)	50	0206160000
EW 35 (8.5)	50	0383560000
AP PA (1.5)	20	0359260000
TSch 4	100	0363360000
StB 8.5	50	0215700000
PS (ø 2.3)	20	0180400000
Q 4	50	0336600000
Q 10	20	0368600000
BSK M 2.5 x 18	100	0303300000
QB 2 ¹⁾	100	0482700000
QB 3 ¹⁾	50	0482800000
QB 4 ¹⁾	50	0482900000
QB 75 blank	10	0526400000
IP	-	0526700000

DK 4 RD

Arc suppression circuit for contactor and solenoid valves (AC)



12 mm
9 mm
0,5 ... 4 mm ²
–
AWG 22 ... 12
–
3 A
1300 V
10 A
BY 255
22 Ω (4 W)
–
–
–

Type	Order No.
DK 4 RD	on request
DK 4 RD/35	0059160000

Type	Qty.	Order No.
TS 32	–	0122800000
TS 35	–	0383400000
EWK 1 (8.5)	50	0206160000
EW 35 (8.5)	50	0383560000
AP PA (1.5)	20	0359260000
TSch 4	100	0363360000
StB 8.5	50	0215700000
PS (ø 2.3)	20	0180400000
Q 3	50	0336500000
Q 4	50	0336600000
Q 10	20	0368600000
AD 4 (4 terminals)	50	0303400000
BSK M 2.5 x 18	100	0303300000
QB 2')	100	0482700000
QB 3')	50	0482800000
QB 4')	50	0482900000
QB 75 blank	10	0526400000
IP	–	0526700000

for retrofitting electronic components

WOP 4 with a pluggable varistor Weidmüller varistor terminals have been designed to allow the retrofitting of electronics components, e.g. varistors, diodes, gas discharge tubes, etc. These electronic terminals no longer have to be configured prior to installation and thus be delivered with soldered components which can no longer be distinguished.

The significant advantages of this new design are:

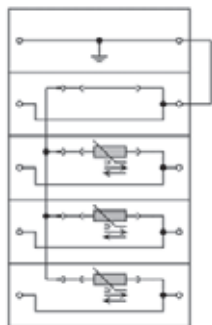
- Cost-savings
- Components can be changed quickly on site
- Service is limited to visual inspection
- Components are easy to distinguish
- Flexibility
- Components can immediately be adapted to changed conditions

Technical data

Dimensions	
Width x length x height (mm) with TS 35x7.5 V	6/60/47
Insulation stripping length/clamping screw	9 mm/M 3
Rated data	
Rated voltage/current/cross-section	250 V/32 A/4 mm ²
Rated impulse voltage VDE 0110/1.89/pollution severity	4 kV/3
Further technical data	
Tightening torque range	Nm 0,5...1,0
Torque setting with DMS2 electric screwdriver clamping range	2
"e" solid HO7V-U	mm ² 0,5...4
"m" stranded HO7V-R	mm ² 1,5...4
"f" flexible HO7V-K	mm ² 0,5...4
"f" flexible HO7V-K and AEH DIN 46228/1	mm ² 0,5...4
"f" flexible HO7V-K and AEH with plastic collar	mm ² 0,5...4
Plug gauge to 947-1	Size A 3
Continuous current rating of terminal for wire size	32 A/4 mm ²
Wire diameter of electrical components	mm 0,8...1,0
Note	

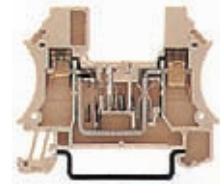
Ordering data

Version	Qty.	Order No.
Wemid	50	1036000000
Intermediate frame		
Thickness 1.5 mm	20	1071100000
Busbar		
	1 m	1071200000
Varistors		
for 24 V		S14k30 on request
for 230 V		S14k275 on request
Gas discharge tube		
for 90 V		90 V 20 kA on request
for 600 V		600 V 20 kA on request
Note		



Surges in a three-phase supplies discharged to earth via WPE with the aid of varistors and a gas discharge tube.

WPO 4



Type	Qty.	Order No.
ZR	20	1071100000
SSch 7.3x1.2	1 m	1071200000
S14k30		on request
S14k275		on request
90 V 20 kA		on request
600 V 20 kA		on request
Note		

Accessories

Marking tags	Type	Order No.
Print		
Consecutive horizontal	DEK6 FW	on request
Consecutive vertical	DEK6 FS	on request
Note		

3-stage protection with screw connection

EGU – surge protection offering excellent protection from 0.05 to 10 A

These tried-and-tested protection modules with screw connections are ideal for process, industrial and building services automation. The series comprises the **EGU1**, **EGU2**, **EGU3**, **EGU4** and **RSU** versions, all of which can be clipped onto the **TS35** and **TS32** rails. The build-in housings can be mounted in either direction by turning the base through 180°. The two- or three-stage protection offered by the EGU series operates with gas discharge tubes, varistors, suppression diodes (TAZ) and uncoupling inductances. Gas discharge tubes discharge high currents reliably. Varistors and suppression diodes absorb the residual voltages. The rated current is up to 1.5 A for the EGU types, up to 10 A for the RSU types. The products can be supplied for rated voltages of 24, 48, 115 or 230 V.

RSU



Three-stage surge protection with GDT, MOV and suppression diode for analogue signals with high current requirement, or for power supplies in instrumentation and control installations. Available in versions for 24, 48, 115 or 230 V.

General technical data for RSU:

storage temperature: -25 °C ... +85 °C
 operating temperature: -25 °C ... +40 °C
 packed singly

EGU1



Two-stage surge protection with GDT and MOV for binary signals, with 24, 48, 115 or 230 V, and additional fuse plus LED signal indicator.

EGU2



Three-stage surge protection with GDT, MOV and suppression diode for binary signals, with 24, 48, 115 or 230 V, and additional fuse plus LED signal indicator.

EGU3



Two-stage surge protection with GDT and MOV for analogue signals, with 24, 48, 115 or 230 V. Two signal lines are protected from each other and against earth with varistors.

EGU4



Three-stage surge protection with GDT, MOV and suppression diode for analogue signals, with 24, 48, 115 or 230 V. Two signal lines are protected from each other and against earth with varistors and suppression diodes. Special versions are available, upon request, for protecting data lines.

General technical data for EGU:

storage temperature: -25 ... +85 °C
 operating temperature: -25 ... +60 °C
 packed singly

EGU 1 50 mA

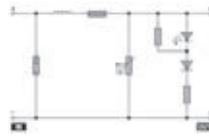
e.g. for binary signals

Dimensions:

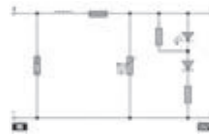
L x W x H = 58 x 63 x 20 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	50 mA
Resistance per path, max	28 Ω
Fuse 5x20	F 63 mA
Model, Ingress protection class	EG 2 IP20
Screw connection:	0.5 ... 6 mm ²

Ordering data	
Technical data	
Voltage, U _n 1.2:	
Voltage, U _c 1.2:	
Rated data of components	Gas discharge tube:
	Varistor:
Max. frequency (-3 db/load impedance):	
Discharge current, I _{max} (8/20 μs), typical:	
Protection level on output side, symmetric	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	
Level of protection on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	

Type	Order No.
EGU 1, 24 V UC	0243960000
24 V UC	
30 V AC / 38 V DC	
90 V 5 kA	
30 V	
20 kHz / 500 Ω	
6 kA	
55 V	
75 V	

Type	Order No.
EGU 1, 48 V UC	on request
48 V UC	
60 V AC / 85 V DC	
230 V 5 kA	
110 V	
40 kHz / 1000 Ω	
6 kA	
130 V	
190 V	

Type	Order No.
EGU 1, 115 V UC	on request
115 V UC	
130 V AC / 170 V DC	
230 V 5 kA	
130 V	
88 kHz / 2200 Ω	
6 kA	
180 V	
250 V	

Type	Order No.
EGU 1, 230 V UC	on request
230 V UC	
250 V AC / 320 V DC	
600 V 20 kA	
275 V	
150 kHz / 4500 Ω	
24 kA	
300 V	
350 V	

EGU 2 50 mA

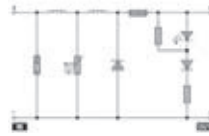
e.g. for binary signals

Dimensions:

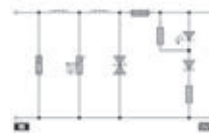
L x W x H = 58 x 63 x 20 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	50 mA
Resistance per path, max	28 Ω
Fuse 5x20	F 63 mA
Model, Ingress protection class	EG 2 IP20
Screw connection:	0,5 ... 6 mm ²

Ordering data	
Technical data	
Voltage, U _n 1.2:	
Voltage, U _c 1.2:	
Rated data of components	Gas discharge tube:
	Varistor:
	Suppression diode:
Max. frequency (-3 db/load impedance):	
Discharge current, I _{max} (8/20 μs) typical:	
Protection level on output side, symmetric	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	
Level of protection on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	

Type	Order No.
EGU 2, 24 V DC	0223060000
24 V DC	
28 V DC	
90 V 5 kA	
30 V	
10 kHz / 500 Ω	
6 kA	
35 V	
75 V	

Type	Order No.
EGU 2, 48 V UC	on request
48 V UC	
55 V AC / 88 V DC	
230 V 5kA	
150 V	
20 kHz / 500 Ω	
6 kA	
82 V	
120 V	

Type	Order No.
EGU 2, 115 V UC	on request
115 V UC	
130 V AC / 170 V DC	
230 V 5 kA	
150 V	
88 kHz / 2200 Ω	
6 kA	
230 V	
350 V	

Type	Order No.
EGU 2, 230 V UC	0223260000
230 V UC	
250 V AC / 320 V DC	
600 V 20 KA	
275 V	
150 kHz / 4500 Ω	
24 kA	
600 V	
820 V	

EGU 2 1.5 A

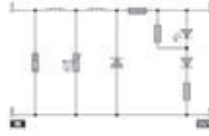
e.g. for power supplies

Dimensions:

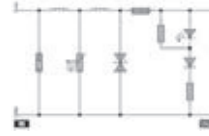
L x W x H = 58 x 63 x 20 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	1,5 A
Resistance per path, max	0,2 Ω
Fuse 5x20	F 1,6 A
Model, Ingress protection class	EG 2 IP20
Screw connection:	0,5 ... 6 mm ²

Ordering data	
Technical data	
Voltage, U _n 1.2:	
Voltage, U _c 1.2:	
Rated data of components	Gas discharge tube:
	Varistor:
	Suppression diode:
Max. frequency (-3 db/load impedance):	
Discharge current, I _{max} (8/20 μs) typical:	
Protection level on output side, symmetric	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	
Level of protection on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	

Type	Order No.
EGU 2, 24 V DC	9310830000
24 V DC	
28 V DC	
90 V 5 kA	
30 V	
500 kHz / 16 Ω	
6 kA	
35 V	
45 V	

Type	Order No.
EGU 2, 48 V UC	1170160000
48 V UC	
55 V AC / 88 V DC	
230 V 5 kA	
150 V	
1 MHz / 32 Ω	
6 kA	
82 V	
120 V	

Type	Order No.
EGU 2, 115 V UC	on request
115 V UC	
130 V AC / 170 V DC	
230 V 5 kA	
150 V	
1,5 MHz / 70 Ω	
6 kA	
230 V	
350 V	

Type	Order No.
EGU 2, 230 V UC	on request
230 V UC	
250 V AC / 320 V DC	
600 V 20 KA	
275 V	
2 MHz / 150 Ω	
24 kA	
600 V	
820 V	

Surge protection for instrumentation and control systems

EGU 3 50 mA

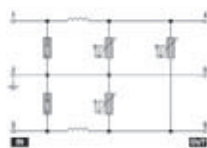
e.g. for current loops

Dimensions:

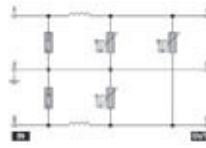
L x W x H = 58 x 95 x 22.5 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	50 mA
Resistance per path, max:	18 Ω
Model, Ingress protection class	EG 3 IP20
Screw connection:	0,5 ... 4 mm ²

Ordering data	
Technical data	
Voltage, U _n 1.3:	24 V UC
Voltage, U _c 1.3:	30 V AC / 38 V DC
Rated data of components	Gas discharge tube:
	90 V 5 kA
	Varistor:
	30 V
Max. frequency (-3 db/load impedance):	10 kHz / 500 Ω
Discharge current, I _{max} (8/20 μs), typical:	6 kA
Protection level on output side, symmetric:	
For 1 kV/μs pulse at input, typical:	55 V
For 8/20 μs (rated discharge current), typical:	75 V
Level of protection on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	85 V
For 8/20 μs (rated discharge current), typical:	105 V

Type	Order No.
EGU 3, 24 V UC	0250560000
24 V UC	
30 V AC / 38 V DC	
90 V 5 kA	
30 V	
10 kHz / 500 Ω	
6 kA	
48 V UC	
60 V AC / 85 V DC	
230 V 5 kA	
65 V	
20 kHz / 1000 Ω	
6 kA	
130 V	
150 V	
150 V	
190 V	

Type	Order No.
EGU 3, 48 V UC	0250660000
115 V UC	
130 V AC / 170 V DC	
230 V 5 kA	
180 V	
44 kHz / 2200 Ω	
6 kA	
180 V	
220 V	
230 V	
290 V	

Type	Order No.
EGU 3, 115 V UC	9311530000
EGU 3, 230 V UC	0250860000
230 V UC	
250 V AC / 320 V DC	
600 V 20 kA	
275 V	
75 kHz / 4500 Ω	
24 kA	
300 V	
350 V	
400 V	
430 V	

EGU 3 1.5 A

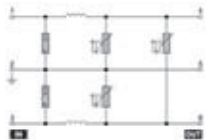
e.g. for power supplies

Dimensions:

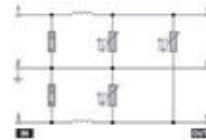
L x W x H = 58 x 95 x 22.5 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	1,5 A
Resistance per path, max:	0,1 Ω
Model, Ingress protection class	EG 3 IP20
Screw connection:	0,5 ... 4 mm ²

Ordering data	
Technical data	
Voltage, U _n 1.3:	24 V UC
Voltage, U _c 1.3:	30 V AC / 38 V DC
Rated data of components	Gas discharge tube:
	90 V 5 kA
	Varistor:
	30 V
Max. frequency (-3 db/load impedance):	300 kHz / 16 Ω
Discharge current, I _{max} (8/20 μs), typical:	6 kA
Protection level on output side, symmetric:	
For 1 kV/μs pulse at input, typical:	55 V
For 8/20 μs (rated discharge current), typical:	75 V
Level of protection on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	85 V
For 8/20 μs (rated discharge current), typical:	105 V

Type	Order No.
EGU 3, 24 V UC	1186760000
24 V UC	
30 V AC / 38 V DC	
90 V 5 kA	
30 V	
300 kHz / 16 Ω	
6 kA	
48 V UC	
60 V AC / 85 V DC	
230 V 5 kA	
65 V	
400 kHz / 32 Ω	
6 kA	
130 V	
150 V	
150 V	
190 V	

Type	Order No.
EGU 3, 48 V UC	1186960000
115 V UC	
130 V AC / 170 V DC	
230 V 5 kA	
180 V	
550 kHz / 70 Ω	
6 kA	
180 V	
220 V	
230 V	
290 V	

Type	Order No.
EGU 3, 115 V UC	on request
EGU 3, 230 V UC	1187060000
230 V UC	
240 V AC / 315 V DC	
600 V 20 kA	
275 V	
800 kHz / 150 Ω	
24 kA	
300 V	
350 V	
400 V	
430 V	

EGU 4 0.1 A

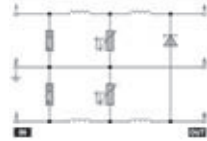
e.g. for current loops

Dimensions:

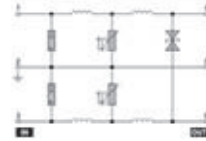
L x W x H = 58 x 95 x 22.5 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	100 mA
Resistance per path, max:	22 Ω
Model, Ingress protection class	EG 3 IP20
Screw connection:	0,5 ... 4 mm ²

Ordering data	
Technical data	
Voltage, U _n 1.3:	24 V DC
Voltage, U _c 1.3:	28 V DC
Rated data of components	Gas discharge tube:
	90 V 5 kA
	Varistor:
	30 V
	Suppression diode:
	33 V
Max. frequency (-3 db/load impedance):	5 kHz / 240 Ω
Discharge current, I _{max} (8/20 μs), typical:	6 kA
Protection level on output side, symmetric:	
For 1 kV/μs pulse at input, typical:	33 V
For 8/20 μs (rated discharge current), typical:	45 V
Protection level on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	48 V
For 8/20 μs (rated discharge current), typical:	90 V

Type	Order No.
EGU 4, 24 V DC	0459460000
24 V DC	
28 V DC	
90 V 5 kA	
30 V	
33 V	
5 kHz / 240 Ω	
6 kA	
48 V UC	
55 V AC / 34 V DC	
90 V 5 kA	
55 V	
48 V	
10 kHz / 240 Ω	
6 kA	
82 V	
130 V	
110 V	
150 V	

Type	Order No.
EGU 4, 48 V UC	0461860000
115 V UC	
130 V AC / 170 V DC	
150 V 5kA	
75 V	
120 V	
20 kHz / 1200 Ω	
6 kA	
200 V	
250 V	
310 V	
350 V	

Type	Order No.
EGU 4, 115 V UC	on request
EGU 4, 230 V UC	0462060000
230 V UC	
250 V AC / 320 V DC	
600 V 20 kA	
275 V	
240 V	
1 MHz / 150 kΩ	
24 kA	
350 V	
420 V	
390 V	
480 V	

EGU 4 1.5 A

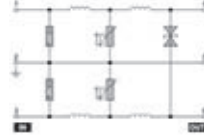
e.g. for power supplies

Dimensions:

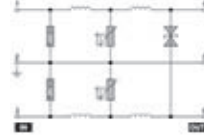
L x W x H = 58 x 95 x 22.5 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	1,5 A
Resistance per path, max:	0,1 Ω
Model, Ingress protection class	EG 3 IP20
Screw connection:	0,5 ... 4 mm ²

Ordering data	
Type	EGU 4, 24 V UUC
Order No.	1170960000
Technical data	
Voltage, U _n 1.3:	
Voltage, U _c 1.3:	
Rated data of components	Gas discharge tube:
	Varistor:
	Suppression diode:
Max. frequency (-3 db/load impedance):	
Discharge current, I _{max} (8/20 μs), typical:	
Protection level on output side, symmetric:	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	
Protection level on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	

Type	Order No.
24 V UUC	
34 V AC / 26.5 V DC	
90 V 5 kA	
30 V	
33 V	
250 kHz / 16 Ω	
6 kA	
48 V UUC	
53 V AC / 75 V DC	
230 V 5 kA	
55 V	
48 V	
500 kHz / 32 Ω	
6 kA	
82 V	
130 V	

Type	Order No.
EGU 4, 48 V UUC	on request
115 V UUC	
130 V AC / 170 V DC	
230 V 5kA	
75 V	
120 V	
800 kHz / 70 kΩ	
6 kA	
200 V	
250 V	
310 V	
350 V	

Type	Order No.
EGU 4, 115 V UUC	1171160000
230 V UUC	
250 V AC / 320 V DC	
600 V 20 kA	
275 V	
240 V	
1 Mhz / 150 kΩ	
24 kA	
400 V	
420 V	
390 V	
480 V	

EGU 4 0.1 A

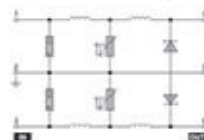
e.g. for symmetric loads

Dimensions:

L x W x H = 58 x 95 x 22.5 mm



Schematic circuit diagram



Schematic circuit diagram



Data	
Current per path, I _{max} :	100 mA
Resistance per path, max:	12 Ω
Model, Ingress protection class	EG 3 IP20
Screw connection:	0,5 ... 4 mm ²

Ordering data	
Type	EGU 4, 24 V DC
Order No.	1170560000
Technical data	
Voltage, U _n 1.3:	
Voltage, U _c 1.3:	
Rated data of components	Gas discharge tube:
	Varistor:
	Suppression diode:
Max. frequency (-3 db/load impedance):	
Discharge current, I _{max} (8/20 μs), typical:	
Protection level on output side, symmetric:	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	
Protection level on output side, asymmetric:	
For 1 kV/μs pulse at input, typical:	
For 8/20 μs (rated discharge current), typical:	

Type	Order No.
24 V DC	
31 V DC	
90 V 5 kA	
30 V	
33 V	
5 kHz / 240 Ω	
6 kA	
48 V UUC	
55 V AC / 75 V DC	
230 V 5 kA	
55 V	
48 V	
20 kHz / 480 Ω	
6 kA	
82 V	
130 V	
170 V	
190 V	

Type	Order No.
EGU 4, 48 V UUC	on request
115 V UUC	
130 V AC / 170 V DC	
230 V 5 kA	
75 V	
120 V	
40 kHz / 1200 Ω	
6 kA	
200 V	
250 V	
400 V	
480 V	

Type	Order No.
EGU 4, 115 V UUC	on request
EGU 4, 230 V UUC	on request
230 V UUC	
250 V AC / 320 V DC	
600 V 20 kA	
275 V	
240 V	
80 khz / 2,2 kΩ	
24 kA	
350 V	
420 V	
700 V	
880 V	

Surge protection for instrumentation and control systems

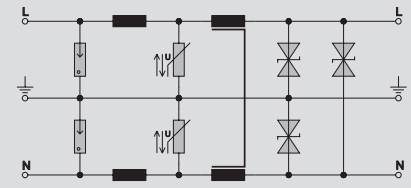
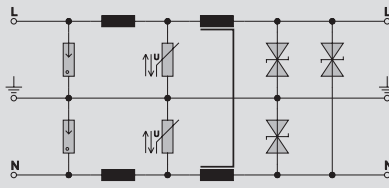
3-stage protection with screw connection

- Surge protection RSU for power supplies
- with current-compensated inductor
- low residual voltage thanks to suppression diodes

RSU 24 V UC 6 A



RSU 115 V UC 6 A



Technical data

Technical data

Rated voltage (AC)	24 V
Rated voltage (DC)	24 V
max. continuous voltage, U _c (AC)	27 V
Operating current, I _{max}	6 A
Volume resistivity	0.08 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	8.0 kHz 4 Ω
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	40 V
Protection level on output side sym., input 8/20 μs, typ.	45 V
Protection level on output side unsym., input 1kV/μs, typ.	40 V
Protection level on output side unsym., input 8/20 μs, typ.	45 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	6 A
Volume resistivity	0.08 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	30.0 kHz 20 Ω
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	200 V
Protection level on output side unsym., input 8/20 μs, typ.	250 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	6 A
Volume resistivity	0.08 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	30.0 kHz 20 Ω
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	200 V
Protection level on output side unsym., input 8/20 μs, typ.	250 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	87 x 81 x 89

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	87 x 81 x 89

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	87 x 81 x 89

Note

Ordering data

Type	Qty.	Order No.
RSU 24VUC 6A LP	1	1171361001

Type	Qty.	Order No.
RSU 115VUC 6A	1	1171561001

Note

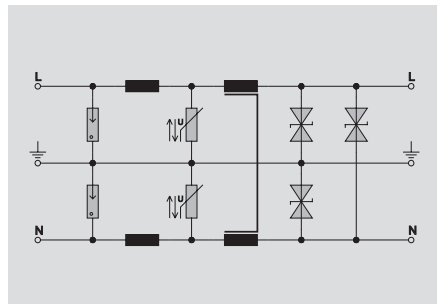
Accessories

Note

3-stage protection with screw connection

- Surge protection RSU for power supplies
- with current-compensated inductor
- low residual voltage thanks to suppression diodes

RSU 230 V UC 6 A



Technical data

Technical data

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	6 A
Volume resistivity	0.08 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	90.0 kHz 40 kΩ
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	420 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	6 A
Volume resistivity	0.08 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	90.0 kHz 40 kΩ
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	420 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	87 x 81 x 89

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	87 x 81 x 89

Note

Ordering data

Type	Qty.	Order No.
RSU 230VUC 6A LP	1	1171661001

Note

Accessories

Note

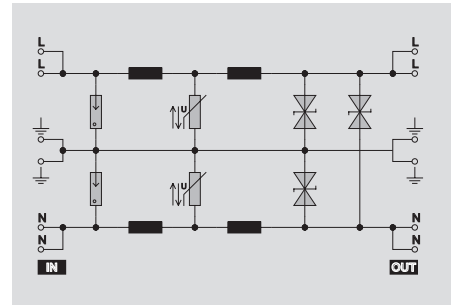
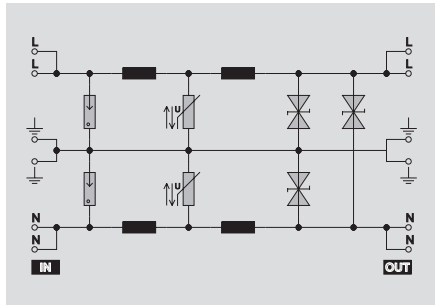
Surge protection for instrumentation and control systems

3-stage protection with screw connection

- Surge protection RSU for power supplies
- with current-compensated inductor
- low residual voltage thanks to suppression diodes

RSU 24 V UC 10 A

RSU 115 V UC 10 A



F

Technical data

Technical data

Rated voltage (AC)	24 V
Rated voltage (DC)	24 V
max. continuous voltage, U _c (AC)	27 V
Operating current, I _{max}	10 A
Volume resistivity	0.04 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	8.0 kHz 4 Ω
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	40 V
Protection level on output side sym., input 8/20 μs, typ.	45 V
Protection level on output side unsym., input 1kV/μs, typ.	40 V
Protection level on output side unsym., input 8/20 μs, typ.	45 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	10 A
Volume resistivity	0.04 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	30.0 kHz 20 Ω
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	200 V
Protection level on output side unsym., input 8/20 μs, typ.	250 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	10 A
Volume resistivity	0.04 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	30.0 kHz 20 Ω
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	200 V
Protection level on output side unsym., input 8/20 μs, typ.	250 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	105 x 105 x 89

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	105 x 105 x 89

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	105 x 105 x 89

Note

Ordering data

Type	Qty.	Order No.
RSU 24VUC 10A	1	8104201001

Type	Qty.	Order No.
RSU 24VUC 10A	1	8104201001

Type	Qty.	Order No.
RSU 115VUC 10A	1	8104221001

Note

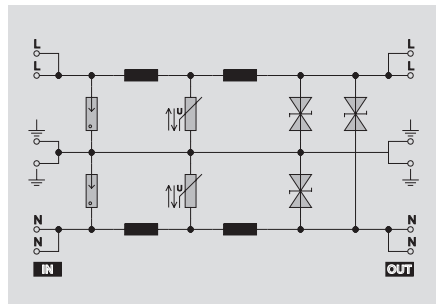
Accessories

Note

3-stage protection with screw connection

- Surge protection RSU for power supplies
- with current-compensated inductor
- low residual voltage thanks to suppression diodes

RSU 230 V UC 10 A



Technical data

Technical data

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	10 A
Volume resistivity	0.04 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	90.0 kHz 40 kΩ
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	420 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	10 A
Volume resistivity	0.04 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	90.0 kHz 40 kΩ
Discharge current, max. (8/20 μs)	24 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	420 V
Design	RS section
Type of connection	Screw connection
Ambient temperature (operational)	-25 ... 40°C
Storage temperature	-25 ... 70°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	105 x 105 x 89

Clamping range (rating- / min. / max.)	mm ²	2.5 / 0.5 / 4
Length x width x height	mm	105 x 105 x 89

Note

Ordering data

Type	Qty.	Order No.
RSU 230VUC 10A LP	1	8093281001

Note

Accessories

Note

3-stage protection with screw connection

Plug-in surge protection

The Weidmüller LPU series consists of a PCB and the build-in SEG-U housing (to be ordered separately). These tried-and-tested protective components can be used in automated process, industrial and building services systems. Their great advantage is that the SEG-U housing can be connected in a number of different ways. The screw connection is standard, but screw/plug, Termipoint, wire-wrap and spade connections are also possible.

The plug-in PCB provides test options; a visual check as well as electrical tests on the individual components are possible. The three-stage LPU boards operate with gas discharge tubes, varistors, suppression diodes (TAZ) and decoupling inductances. The LPU boards are characterised by a high level of protection for currents up to 1.5 A. They are available in rated voltages of 24, 48, 115 and 230 V.

Note:

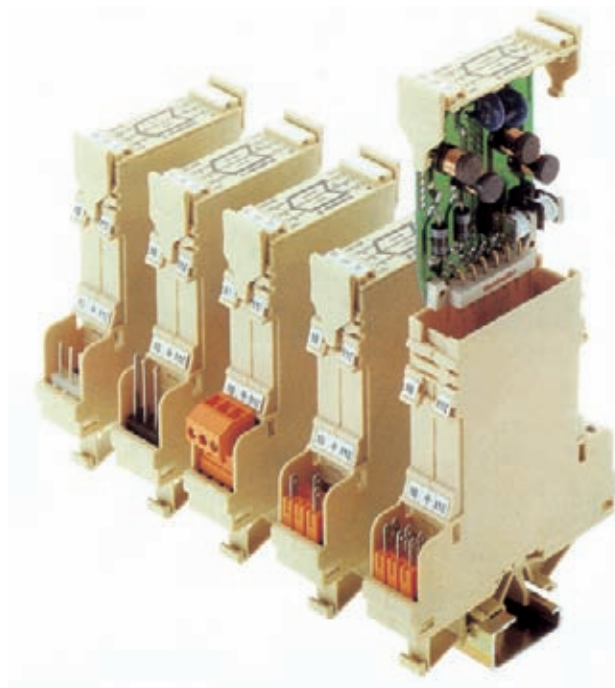
The SEG-U housing for the LPU plug-in protection board must be ordered separately.

Three different LPU boards are available:

- Two signal lines protected against earth (suitable for binary signals).
- Analogue signals are protected against each other and against earth (e.g. 0 ... 20 mA circuits).
- Isolated signals are given high-resistance protection against earth and against each other (suitable for thermal signals).

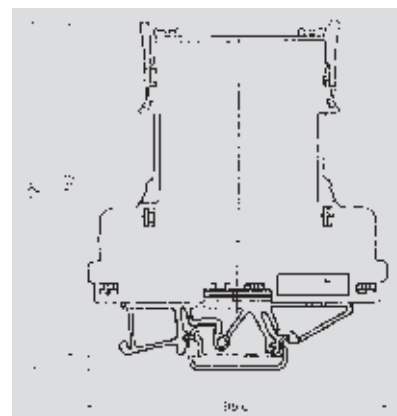
A testing unit fitted in a case is available for the electrical tests. The protective elements, e.g. gas discharge tubes, varistors, suppression diodes, integrated on the LPU board are tested to check their rated data and permissible tolerances. The integral inductances are also checked for continuity.

The results of the tests are recorded either by way of red/green LEDs or the integral printer. A self-test is performed after switching on the testing unit. The electrical tests on the LPU board are carried out automatically after plugging in the LPU surge protection.



Dimensions SEG-U

- Width 20 mm
- Screw connection
- flexible 0.5 ... 2.5 mm²
- stranded 0.5 ... 4 mm²



3-stage protection on circuit card

Plug-in surge protection LPU

- Please note: the housing for the LPU protection card must be ordered separately

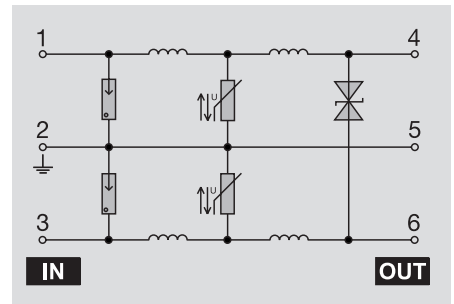
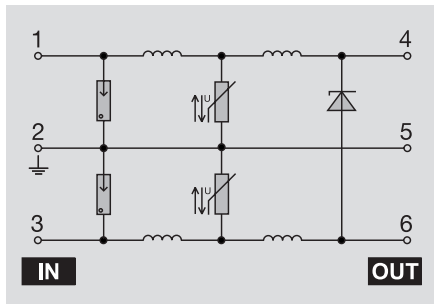
LPU 24 V DC 100 mA

Protection for current loops



LPU 48 V UC 100 mA

Protection for current loops



Technical data

Technical data	
Rated voltage (AC)	
Rated voltage (DC)	
max. continuous voltage, U _c (AC)	
Operating current, I _{max}	
Volume resistivity	
Gas discharge tube	
Varistor	
Suppression diodes	
Cut-off frequency (-3 dB) at load impedance	
Discharge current, max. (8/20 μs)	
Protection level on output side sym., input 1 kV/μs, typ.	
Protection level on output side sym., input 8/20 μs, typ.	
Protection level on output side unsym., input 1kV/μs, typ.	
Protection level on output side unsym., input 8/20 μs, typ.	
Design	
Type of connection	
Ambient temperature (operational)	
Storage temperature	

24 V
29 V
0.1 A
12.50 Ω
yes
yes
yes
7.5 kHz / 240 Ω
6 kA
34 V
45 V
34 V
45 V
Plug-in card
Plug-in connection
-25 ... 50°C
-25 ... 85°C

48 V
48 V
53 V
0.1 A
12.50 Ω
yes
yes
yes
9.0 kHz / 480 Ω
6 kA
82 V
130 V
82 V
130 V
Plug-in card
Plug-in connection
-25 ... 50°C
-25 ... 85°C

Type of connection	
Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm
Note	

96.6 x 20 x 117
Height including enclosure SEG-U

96.6 x 20 x 117
Height including enclosure SEG-U

Ordering data

Type	Qty.	Order No.
LPU 24VDC 100MA	1	on request
Note		

Can be tested with test case

Type	Qty.	Order No.
LPU 48VUC 100MA	1	8008330000
Note		

Can be tested with test case

Accessories

Note

Housing SEG-U 8007871001

Housing SEG-U 8007871001

Surge protection for instrumentation and control systems

3-stage protection on circuit card

Plug-in surge protection LPU

- Please note: the housing for the LPU protection card must be ordered separately

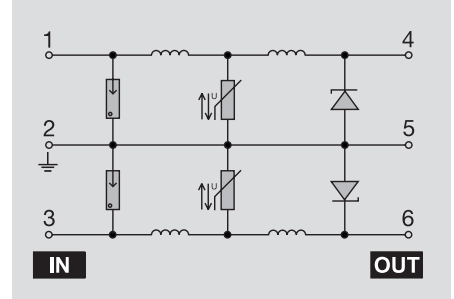
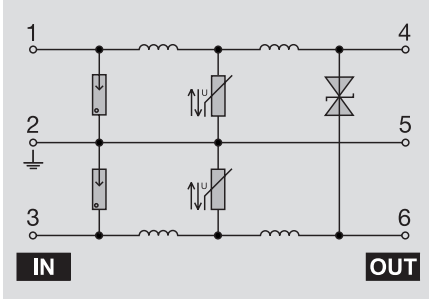
LPU 115 V UC 100 mA

Protection for current loops



LPU 24 V DC 100 mA SL

Protection for 2 binary signals



Technical data

Technical data

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	9.0 kHz / 1100 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	200 V
Protection level on output side unsym., input 8/20 μs, typ.	250 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 50°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	9.0 kHz / 1100 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	200 V
Protection level on output side unsym., input 8/20 μs, typ.	250 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 50°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	24 V
Rated voltage (DC)	29 V
max. continuous voltage, U _c (AC)	29 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	7.5 kHz 240 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	34 V
Protection level on output side sym., input 8/20 μs, typ.	45 V
Protection level on output side unsym., input 1kV/μs, typ.	60 V
Protection level on output side unsym., input 8/20 μs, typ.	90 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm

96.6 x 20 x 117

96.6 x 20 x 117

Note

Height including enclosure SEG-U

Height including enclosure SEG-U

Ordering data

Type	Qty.	Order No.
LPU 115VUC 100MA	1	8008350000

Type	Qty.	Order No.
LPU 24VDC 100MA	1	8008230000

Note

Can be tested with test case

Can be tested with test case

Accessories

Note

Housing SEG-U 8007871001

Housing SEG-U 8007871001

3-stage protection on circuit card

Plug-in surge protection LPU

- Please note: the housing for the LPU protection card must be ordered separately

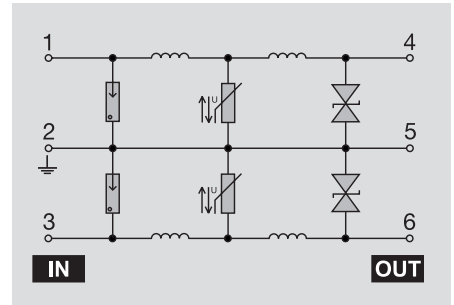
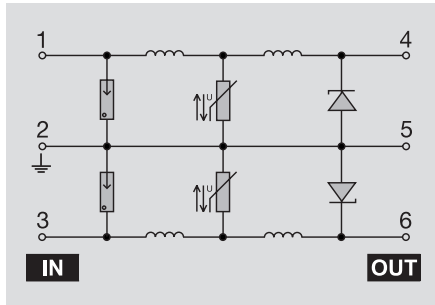
LPU 48 V UC 100 mA SL

Protection for 2 binary signals



LPU 115 V UC 100 mA SL

Protection for 2 binary signals



Technical data

Technical data	
Rated voltage (AC)	48 V
Rated voltage (DC)	48 V
max. continuous voltage, U _c (AC)	53 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	17.0 kHz 480 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	82 V
Protection level on output side sym., input 8/20 μs, typ.	130 V
Protection level on output side unsym., input 1kV/μs, typ.	160 V
Protection level on output side unsym., input 8/20 μs, typ.	260 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	40.0 kHz 1100 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	500 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	40.0 kHz 1100 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	500 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	96.6 x 20 x 117

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	96.6 x 20 x 117

Note

Height including enclosure SEG-U

Height including enclosure SEG-U

Ordering data

Type	Qty.	Order No.
LPU 48VUC 100MA	1	8008250000

Type	Qty.	Order No.
LPU 115VUC 100MA	1	8008260000

Note

Can be tested with test case

Can be tested with test case

Accessories

Note

Housing SEG-U 8007871001

Housing SEG-U 8007871001

Surge protection for instrumentation and control systems

3-stage protection on circuit card

Plug-in surge protection LPU

- Please note: the housing for the LPU protection card must be ordered separately

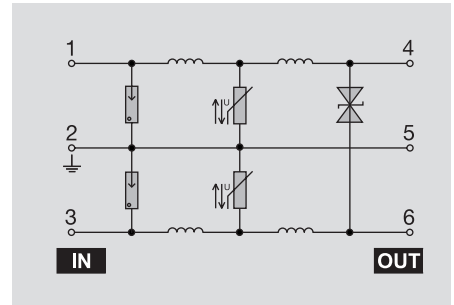
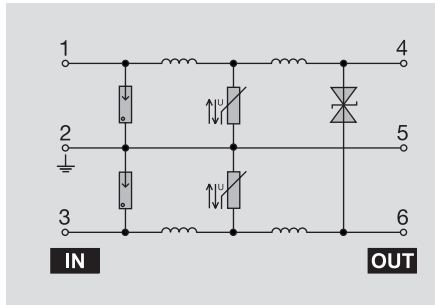
LPU 24 V UC 1.5 A

Protection for current loops



LPU 48 V UC 1.5 A

Protection for current loops



Technical data

Technical data

Rated voltage (AC)
 Rated voltage (DC)
 max. continuous voltage, U_c (AC)
 Operating current, I_{max}
 Volume resistivity
 Gas discharge tube
 Varistor
 Suppression diodes
 Cut-off frequency (-3 dB) at load impedance
 Discharge current, max. (8/20 μ s)
 Protection level on output side sym., input 1 kV/ μ s, typ.
 Protection level on output side sym., input 8/20 μ s, typ.
 Protection level on output side unsym., input 1kV/ μ s, typ.
 Protection level on output side unsym., input 8/20 μ s, typ.
 Design
 Type of connection
 Ambient temperature (operational)
 Storage temperature

24 V
 24 V
 27 V
 1.5 A
 0.20 Ω
 yes
 yes
 yes
 150.0 kHz 16 Ω
 6 kA
 34 V
 45 V
 34 V
 45 V
 Plug-in card
 Plug-in connection
 -25 ... 50°C
 -25 ... 85°C

48 V
 48 V
 53 V
 1.5 A
 0.20 Ω
 yes
 yes
 yes
 300.0 kHz 32 Ω
 6 kA
 82 V
 130 V
 82 V
 130 V
 Plug-in card
 Plug-in connection
 -25 ... 50°C
 -25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.) mm²
 Length x width x height mm

96.6 x 20 x 117

96.6 x 20 x 117

Note

Height including enclosure SEG-U

Height including enclosure SEG-U

Ordering data

Type	Qty.	Order No.
LPU 24VUC/ 1,5A	1	8237700000

Type	Qty.	Order No.
LPU 48VUC 1,5A	1	8008440000

Note

Can be tested with test case

Can be tested with test case

Accessories

Note

Housing SEG-U 8007871001

Housing SEG-U 8007871001

3-stage protection on circuit card

Plug-in surge protection LPU

- Please note: the housing for the LPU protection card must be ordered separately

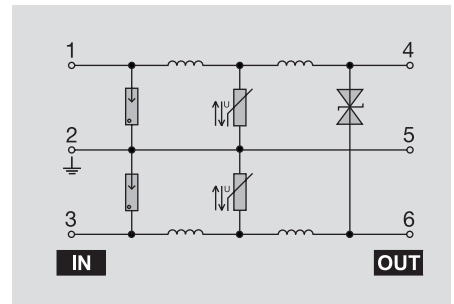
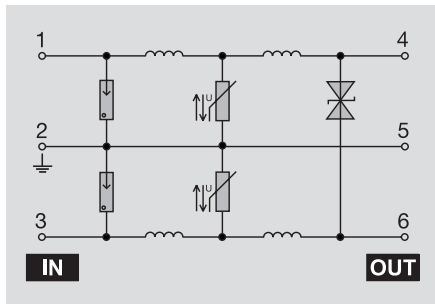
LPU 115 V UC 1.5 A

Protection for current loops



LPU 230 V UC 1.5 A

Protection for current loops



Technical data

Technical data	
Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	1.5 A
Volume resistivity	0.20 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	600.0 kHz 70 kΩ
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	250 V
Protection level on output side unsym., input 1kV/μs, typ.	200 V
Protection level on output side unsym., input 8/20 μs, typ.	250 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 50°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	1.5 A
Volume resistivity	0.20 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	1.0 MHz 150 kΩ
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	420 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 50°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	1.5 A
Volume resistivity	0.20 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	1.0 MHz 150 kΩ
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	400 V
Protection level on output side unsym., input 8/20 μs, typ.	420 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 50°C
Storage temperature	-25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	96.6 x 20 x 117

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	96.6 x 20 x 117

Note

Height including enclosure SEG-U

Height including enclosure SEG-U

Ordering data

Type	Qty.	Order No.
LPU 115VUC 1,5A	1	8008450000

Type	Qty.	Order No.
LPU 230VUC 1,5A	1	8008460000

Note

Can be tested with test case

Can be tested with test case

Accessories

Note

Housing SEG-U 8007871001

Housing SEG-U 8007871001

Surge protection for instrumentation and control systems

3-stage protection on circuit card

Plug-in surge protection LPU

- Please note: the housing for the LPU protection card must be ordered separately

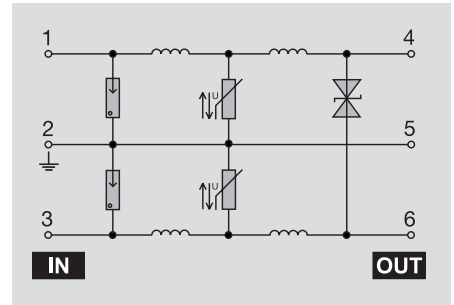
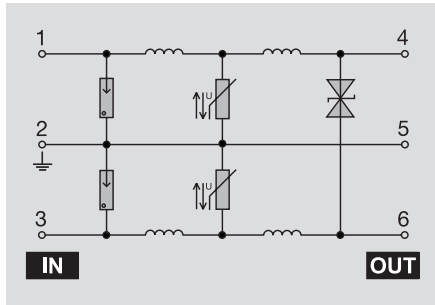
LPU 24 V DC 100 mA

Protection for current loops



LPU 48 V UC 100 mA

Protection for current loops



Technical data

Technical data

Rated voltage (AC)
 Rated voltage (DC)
 max. continuous voltage, U_c (AC)
 Operating current, I_{max}
 Volume resistivity
 Gas discharge tube
 Varistor
 Suppression diodes
 Cut-off frequency (-3 dB) at load impedance
 Discharge current, max. (8/20 μ s)
 Protection level on output side sym., input 1 kV/ μ s, typ.
 Protection level on output side sym., input 8/20 μ s, typ.
 Protection level on output side unsym., input 1kV/ μ s, typ.
 Protection level on output side unsym., input 8/20 μ s, typ.
 Design
 Type of connection
 Ambient temperature (operational)
 Storage temperature

24 V
 29 V
 0.1 A
 12,50 Ω
 yes
 yes
 yes
 7.5 kHz 240 Ω
 6 kA
 34 V
 45 V
 600 V
 700 V
 Plug-in card
 Plug-in connection
 -25 ... 60°C
 -25 ... 85°C

48 V
 48 V
 53 V
 0.1 A
 12,50 Ω
 yes
 yes
 yes
 17.0 kHz 480 Ω
 6 kA
 82 V
 130 V
 600 V
 700 V
 Plug-in card
 Plug-in connection
 -25 ... 60°C
 -25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.) mm²
 Length x width x height mm

96.6 x 20 x 117

96.6 x 20 x 117

Note

Height including enclosure SEG-U

Height including enclosure SEG-U

Ordering data

Type	Qty.	Order No.
LPU 24VDC 100MA	1	8008390000

Type	Qty.	Order No.
LPU 48VUC 100MA	1	on request

Note

Can be tested with test case

Can be tested with test case

Accessories

Note

Housing SEG-U 8007871001

Housing SEG-U 8007871001

3-stage protection on circuit card

Plug-in surge protection LPU

- Please note: the housing for the LPU protection card must be ordered separately

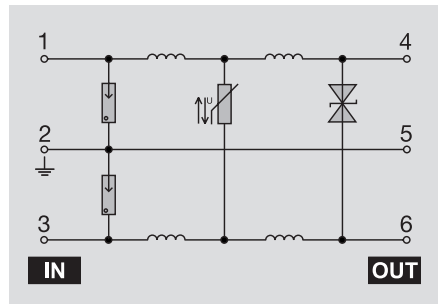
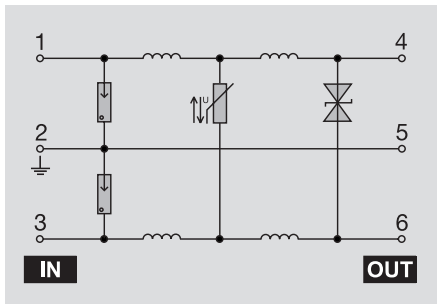
LPU 115 V UC 100 mA

Floating earth



LPU 230 V UC 100 mA

Floating earth



Technical data

Technical data

Rated voltage (AC)	115 V
Rated voltage (DC)	115 V
max. continuous voltage, U _c (AC)	130 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	40.0 kHz 1100 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	200 V
Protection level on output side sym., input 8/20 μs, typ.	220 V
Protection level on output side unsym., input 1kV/μs, typ.	600 V
Protection level on output side unsym., input 8/20 μs, typ.	700 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	80.0 kHz 2200 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	600 V
Protection level on output side unsym., input 8/20 μs, typ.	700 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Rated voltage (AC)	230 V
Rated voltage (DC)	230 V
max. continuous voltage, U _c (AC)	250 V
Operating current, I _{max}	0.1 A
Volume resistivity	12.50 Ω
Gas discharge tube	yes
Varistor	yes
Suppression diodes	yes
Cut-off frequency (-3 dB) at load impedance	80.0 kHz 2200 Ω
Discharge current, max. (8/20 μs)	6 kA
Protection level on output side sym., input 1 kV/μs, typ.	400 V
Protection level on output side sym., input 8/20 μs, typ.	420 V
Protection level on output side unsym., input 1kV/μs, typ.	600 V
Protection level on output side unsym., input 8/20 μs, typ.	700 V
Design	Plug-in card
Type of connection	Plug-in connection
Ambient temperature (operational)	-25 ... 60°C
Storage temperature	-25 ... 85°C

Type of connection

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	mm

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	96.6 x 20 x 117

Clamping range (rating- / min. / max.)	mm ²
Length x width x height	96.6 x 20 x 117

Note

Height including enclosure SEG-U

Height including enclosure SEG-U

Ordering data

Type	Qty.	Order No.
LPU 115VUC 100MA	1	on request

Type	Qty.	Order No.
LPU 230VUC 100MA	1	on request

Note

Can be tested with test case

Can be tested with test case

Accessories

Note

Housing SEG-U 8007871001

Housing SEG-U 8007871001