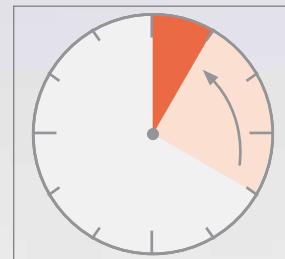


Relays and Optos

Australia & New Zealand Core Assortment Catalogue 2012

CONSTANT COMMITMENT TO INNOVATION...

NEW TERMSERIES SLIMLINE HIGH PERFORMANCE PLUG-IN RELAYS



Timesaving

The ability to cross connect each input and output will reduce wiring time.



Visible

With the LED integrated into the Holddown Clip/Ejecting lever, Light is diffused thus indication is brighter and visible in high light levels.



Smaller

The new design reduces the overall height of the relay. This reduction also increases the structural strength of the relay.

The new **TERMSERIES** is the **NEXT** generation of slimline relays from Weidmuller and incorporates a number of new innovations from its already highly proven **MICROSERIES** slimline relay family.

Not only have Weidmuller's R&D team managed to design the product in a lower profile space saving housing but they have also managed to increase the structural strength of the product and most importantly also improve its performance. If this doesn't make the new **TERMSERIES** your number 1 choice in slimline relays then we don't know what will!

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Space Saving Power Relays



1 CO & 2 CO



2 CO CONTACT



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BASE

PCB PINS

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ACCESSORIES

1 CHANNEL

2 CHANNEL

Termopto and Microopto

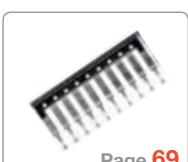
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TERMOPTO

MICROPTO

ACCESSORIES

MC50

Specialty Terminal Optocouplers



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SOLENOID DRIVE 10A

SOLENOID DRIVER 1A

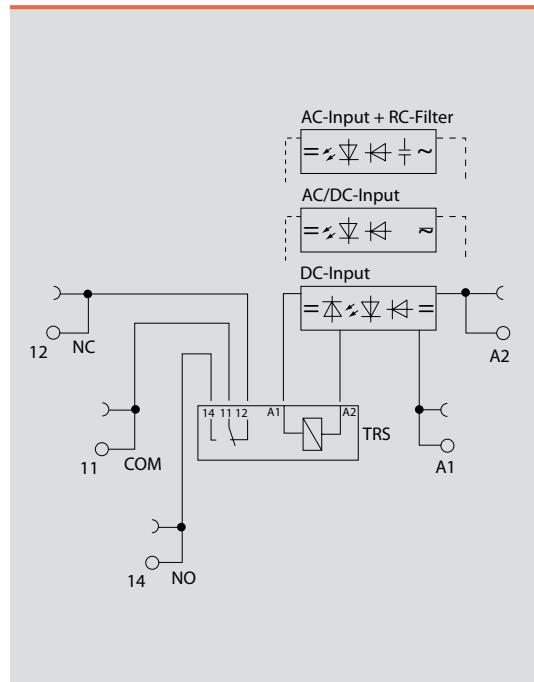
DUAL VOLTAGE

TERMSERIES - Relay modules

Termseries

1 CO contact

- Space-saving 6.4 mm width
- Silver/Nickel (AgNi) contact with or without gold plating
- 5 cross connection level
- Screw and tension connection
- Multi voltage input: 24...230 V UC (AC/DC) in one unit



Output		1 CO
Type of contact / Number of contacts		1 CO contact
Contact material		Silver/Nickel (AgNi)
Max. switching voltage / current		250 V / 6A ⁽¹⁾
Min. switching voltage / current		5 V / 100 mA ⁽²⁾
Min. mechanical lifetime		5x10 ⁸ ⁽¹⁾
Min. electrical lifetime		NO: 5x10 ⁴ ; NC: 3x10 ⁴ ⁽¹⁾
Max. switch-on / switch-off delay		8 / 4 ms
General data		
Status indicator / Free-wheel (Input)		LED green / yes
Reverse polarity protection (Input)		yes
Ambient temperature (operational)		-40 °C to 60 °C
Storage temperature		-40 °C to 85 °C
Humidity		5 %...95 %, Tu=40 °C, no condensation
Reference temperature technical data		20 °C
Insulation coordination (EN 50 178)		
Rated voltage		300 V
Rated impulse voltage		6 kV (1.2 / 50 µs)
Overshoot category		III
Pollution degree		2
Clearance and creepage distance input / output		>= 5.5 mm
Total circuit to rail		4 k Veff / 1 min
Dimensions		
Clamping range	mm ²	0.14...1.5 mm ²
Height x length x width	mm	90 x 88 x 6.4
Note		
		⁽¹⁾ At resistive load ⁽²⁾ 10 V / 10 mA; 24 V / 1 mA
		⁽³⁾ Au- plate operate up to 0.25 W

24 V - 230 V UC (AC/DC)

Control side
Rated control voltage
Input current
Input power
Making threshold
Dropout threshold

Ordering data

	Silver/Nickel (AgNi)	AgNi 5uAu (Gold Plated)
Screw connection	TRS 24-230VUC (AC/DC) 1CO 1122850000	TRS 24-230VUC (AC/DC) 1CO Au* 1123090000
Tension clamp connection	TRZ 24-230VUC (AC/DC) 1CO 1122970000	TRZ 24-230VUC (AC/DC) 1CO Au* 1123210000

*Gold (Au)

Note

Spare relay type RSS...024

TERMSERIES - Relay modules

Ordering data		5 V DC	12 V DC	24 V DC	24 V UC (AC/DC)	48 V UC (AC/DC)
Control side						
Rated control voltage	5 V DC +/- 20 %	12 V DC +/- 20 %	24 V DC +/- 20 %	24 V UC (AC/DC) +/- 10 %	48 V UC (AC/DC) +/- 10 %	
Input current AC/DC	- / 39 mA	- / 18 mA	- / 11 mA	11 mA / 6.4 mA	5 mA / 4 mA	
Input power	200 mW	210 mW	240 mW	264 mVA / 154 mW	240 mVA / 192 mW	
Making threshold	3.8 V DC @ 21 mA	8 V DC @ 9 mA	15 V DC @ 7 mA	15.8 V @ 4 mA	29 V @ 4 mA	
Dropout threshold	1.6 V DC @ 8 mA	2 V DC @ 3 mA	5 V DC @ 2 mA	7 V @ 1 mA	10 V @ 1 mA	
Ordering data						
Screw connection	TRS 5VDC 1CO	TRS 12VDC 1CO	TRS 24VDC 1CO	TRS 24VUC* 1CO	TRS 48VUC* 1CO	
Silver/Nickel (AgNi)	1122740000	1122750000	1122770000	1122780000	1122790000	
AgNi 5uAu (Gold Plated)	TRS 5VDC 1CO Au*	TRS 12VDC 1CO Au*	TRS 24VDC 1CO Au*	TRS 24VUC* 1CO Au*	TRS 48VUC* 1CO Au*	
Tension clamp connection	TRZ 5VDC 1CO	TRZ 12VDC 1CO	TRZ 24VDC 1CO	TRZ 24VUC* 1CO	TRZ 48VUC* 1CO	
Silver/Nickel (AgNi)	1122860000	1122870000	1122880000	1122890000	1122900000	
AgNi 5uAu (Gold Plated)	TRZ 5VDC 1CO Au*	TRZ 12VDC 1CO Au*	TRZ 24VDC 1CO Au*	TRZ 24VUC* 1CO Au*	TRZ 48VUC* 1CO Au*	
	1123100000	1123110000	1123120000	1123130000	1123140000	
*Gold (Au)	*Gold (Au)	*Gold (Au)	*Gold (Au)	*AC/DC (UC) / *Gold (Au)	*AC/DC (UC) / *Gold (Au)	

Note	Spare relay type RSS...005	Spare relay type RSS...0012	Spare relay type RSS...024	Spare relay type RSS...024	Spare relay type RSS...024
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Ordering data		60 V UC (AC/DC)	120 V UC (AC/DC)	230 V UC (AC/DC)	120 V AC RC	230 V AC RC
Control side						
Rated control voltage	60 V UC (AC/DC) +/- 10 %	120 V UC (AC/DC) +/- 10 %	230 V UC (AC/DC) +/- 10 %	120 V AC +/- 10 %	230 V AC +/- 10 %	
Input current AC/DC	6 mA / 3.3 mA	4 mA / 3.5 mA	3.5 mA / 2.9 mA	7 mA / -	10 mA / -	
Input power	360 mVA / 198 mW	480 mVA / 420 mW	805 mVA / 670 mW	840 mVA	2.3 VA	
Making threshold	35 V AC / 40 V DC	79 V @ 1.5 mA	159 V @ 2.2 mA	79 V @ 4 mA	130 V / 9 mA	
Dropout threshold	13 V AC / 13 V DC	65 V @ 0.5 mA	99 V @ 1.2 mA	65 V @ 2.5 mA	94 V / 4 mA	
Ordering data						
Screw connection	TRS 60VUC* 1CO	TRS 120VUC* 1CO	TRS 230VUC* 1CO	TRS 120VACRC 1CO	TRS 230VACRC 1CO	
Silver/Nickel (AgNi)	1122800000	1122810000	1122820000	1122830000	1122840000	
AgNi 5uAu (Gold Plated)	TRS 60VUC* 1CO Au*	TRZ 120VUC* 1CO Au*	TRS 230VUC* 1CO Au*	TRS 120VACRC 1CO Au*	TRS 230VACRC 1CO Au*	
Tension clamp connection	TRZ 60VUC* 1CO	TRZ 120VUC* 1CO	TRZ 230VUC* 1CO	TRZ 120VACRC 1CO	TRZ 230VACRC 1CO	
Silver/Nickel (AgNi)	1122910000	1122920000	1122930000	1122940000	1122950000	
AgNi 5uAu (Gold Plated)	TRZ 60VUC* 1CO Au*	TRS 120VUC* 1CO Au*	TRZ 230VUC* 1CO Au*	TRZ 120VACRC 1CO Au*	TRZ 230VACRC 1CO Au*	
	1123150000	1123040000	1123180000	1123190000	1123200000	
*AC/DC (UC) / *Gold (Au)	*Gold (Au)	*Gold (Au)				

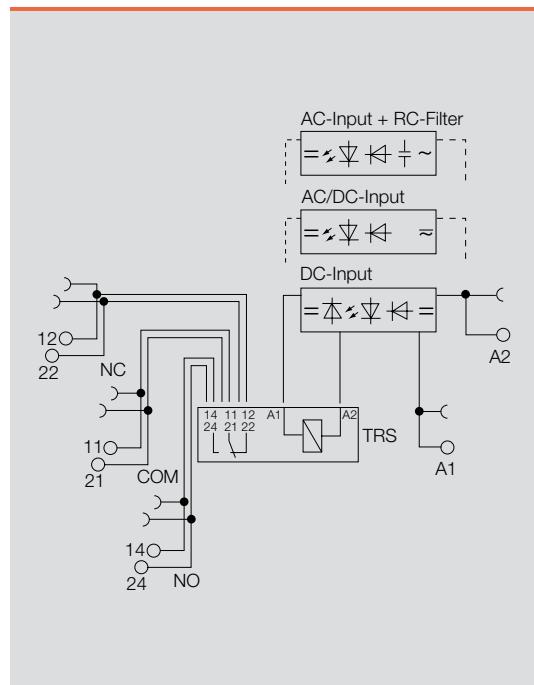
Note	Spare relay type RSS...060				
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TERMSERIES - Relay modules

Termseries

2 CO contact

- Space-saving 12.8 mm width
- Silver/Nickel (AgNi) contact with or without gold plating
- 5 cross connection level
- Screw and tension connection
- Multi voltage input: 24...230 V UC (AC/DC) in one unit



Output	2 CO	2 CO Au (Gold)
Type of contact / Number of contacts	2 CO contact	2 CO contact
Contact material	AgNi	AgNi 5uAu ⁽³⁾
Max. switching voltage / current	250 V / 8A; 15A @ 4s ⁽¹⁾	250 V / 8A; 15A @ 4s ⁽¹⁾
Min. switching voltage / current	10 V / 100 mA ⁽²⁾	1 V / 1 mA
Min. mechanical lifetime	30x10 ⁶ ⁽¹⁾	30x10 ⁶ ⁽¹⁾
Min. mechanical lifetime	NO: 5x10 ⁴ ; NC: 3x10 ⁴ ⁽¹⁾	NO: 5x10 ⁴ ; NC: 3x10 ⁴ ⁽¹⁾
Max. switch-on / switch-off delay	8 / 4 ms	8 / 4 ms
General data		
Status indicator / Free-wheel (Input)	LED green / yes	
Reverse polarity protection (Input)	yes	
Ambient temperature (operational)	-40 °C to 60 °C	
Storage temperature	-40 °C to 85 °C	
Humidity	5 %...95 %, Tu=40 °C, no condensation	
Reference temperature technical data	20 °C	
Insulation coordination (EN 50 178)		
Rated voltage	300 V	
Rated impulse voltage	6 kV (1.2 / 50 µs)	
Oversupply category	III	
Pollution degree	2	
Clearance and creepage distance input / output	>= 5.5 mm	
Total circuit to rail	4kVeff / 1 min	
Dimensions		
Clamping range	mm ² 0.14...1.5 mm ²	
Height x length x width	mm 90 x 88 x 12.8	
Note		
	⁽¹⁾ At resistive load ⁽²⁾ 10 V / 10 mA; 24 V / 1 mA	
	⁽³⁾ Au- plate operate up to 0.25 W	

24 V - 230 V UC (AC/DC)

Control side		
Rated control voltage	24 V...230 V UC (AC/DC) +/- 10 %	
Input current	22 mA @ 24 V DC / 6 mA @ 230 V AC (+/- 10 %)	
Input power	530 mW @ 24 V DC / 930 mW @ 230 V AC	
Making threshold	11 V / 20 mA	
Dropout threshold	5 V / 6 mA	

Ordering data

	Silver/Nickel (AgNi)	AgNi 5uAu (Gold Plated)
Screw connection	TRS 24-230VUC (AC/DC) 2CO 1123580000	TRS 24-230VUC* 2CO Au* 1123820000
Tension clamp connection	TRZ 24-230VUC (AC/DC) 2CO 1123700000	TRZ 24-230VUC* 2CO Au* 1123940000

*AC/DC (UC) / *Gold (Au)

Note

Spare relay type RCL...024

TERMSERIES - Relay modules

Ordering data		5 V DC	12 V DC	24 V DC	24 V UC (AC/DC)	48 V UC (AC/DC)
Control side						
Rated control voltage	5 V DC +/-20 %	12 V DC +/-20 %	24 V DC +/- 20 %	24 V UC (AC/DC) +/-10 %	48 V UC (AC/DC)+/-10 %	
Input current AC/DC	- / 39 mA	- / 34 mA	- / 16 mA	16 mA / 14 mA	9 mA / 7 mA	
Input power	200 mW	408 mW	384 mW	384 mVA / 336 mW	432 mVA / 336 mW	
Making threshold	3.8 V DC @ 21 mA	8 V DC @ 21 mA	16.6 V DC @ 10 mA	16 V @ 10 mA	29 V @ 5 mA	
Dropout threshold	1.6 V DC @ 8 mA	3 V DC @ 5 mA	3.5 V DC @ 3 mA	8 V @ 3 mA	12 V @ 2 mA	
Ordering data						
Screw connection	TRS 5VDC 2CO	TRS 12VDC 2CO	TRS 24VDC 2CO	TRS 24VUC* 2CO	TRS 48VUC* 2CO	
Silver/Nickel (AgNi)	1123470000	1123480000	1123490000	1123500000	1123510000	
AgNi 5uAu (Gold Plated)	TRS 5VDC 2CO Au*	TRS 12VDC 2CO Au*	TRS 24VDC 2CO Au*	TRS 24VUC* 2CO Au*	TRS 48VUC* 2CO Au*	
Tension clamp connection	1123710000	1123720000	1123730000	1123740000	1123750000	
Silver/Nickel (AgNi)	1123590000	1123600000	1123610000	1123620000	1123630000	
AgNi 5uAu (Gold Plated)	TRZ 5VDC 2CO Au*	TRZ 12VDC 2CO Au*	TRZ 24VDC 2CO Au*	TRZ 24VUC* 2CO Au*	TRZ 48VUC* 2CO Au*	
	1123830000	1123840000	1123850000	1123870000	1123880000	
*Gold (Au)	*Gold (Au)	*Gold (Au)	*Gold (Au)	*AC/DC (UC) / *Gold (Au)	*AC/DC (UC) / *Gold (Au)	
Note	Spare relay type RCL...005	Spare relay type RCL...0012	Spare relay type RCL...0024	Spare relay type RCL...0024	Spare relay type RCL...0048	
Ordering data		60 V UC (AC/DC)	120 V UC (AC/DC)	230 V UC (AC/DC)	120 V AC RC	230 V AC RC
Control side						
Rated control voltage	60 V UC (AC/DC) +/-10 %	120 V UC (AC/DC) +/-10 %	230 V UC (AC/DC) +/-10 %	120 V AC +/- 10 %	230 V AC +/-10 %	
Input current AC/DC	6 mA / 3.3 mA	4 mA / 3.5 mA	3.5 mA / 2.9 mA	7 mA / -	10 mA / -	
Input power	360 mVA / 198 mW	480 mVA / 420 mW	805 mVA / 670 mW	840 mVA	2.3 VA	
Making threshold	35 V AC / 40 V DC	79 V @ 1.5 mA	159 V @ 2.2 mA	79 V @ 4 mA	130 V / 9 mA	
Dropout threshold	13 V AC / 13 V DC	65 V @ 0.5 mA	99 V @ 1.2 mA	65 V @ 2.5 mA	94 V / 4 mA	
Ordering data						
Screw connection	TRS 60VUC* 2CO	TRS 120VUC* 2CO	TRS 230VUC* 2CO	TRS 120VACRC 2CO	TRS 230VACRC 2CO	
Silver/Nickel (AgNi)	1123520000	1123530000	1123540000	1123550000	1123570000	
AgNi 5uAu (Gold Plated)	TRS 60VUC* 2CO Au*	TRS 120VUC* 2CO Au*	TRS 230VUC* 2CO Au*	TRS 120VACRC 2CO Au*	TRS 230VACRC 2CO Au*	
Tension clamp connection	1123770000	1123780000	1123790000	1123800000	1123810000	
Silver/Nickel AgNi	1123640000	1123650000	1123670000	1123680000	1123690000	
AgNi 5uAu (Gold Plated)	TRZ 60VUC* 2CO Au*	TRZ 120VUC* 2CO Au*	TRZ 230VUC* 2CO Au*	TRZ 120VACRC 2CO Au*	TRZ 230VACRC 2CO Au*	
	1123890000	1123900000	1123910000	1123920000	1123930000	
*AC/DC (UC) / *Gold (Au)	*Gold (Au)	*Gold (Au)				
Note	Spare relay type RCL...060	Spare relay type RCL...110				

TERMSERIES - Accessories

Pluggable cross connection

Type	No. of poles / pitch	Order No.
ZQV 1.5N/R6.4/2 GE	2 / 6.4	1193670000
ZQV 1.5N/R6.4/10 GE	10 / 6.4	1193680000
ZQV 1.5N/R6.4/19 GE	19 / 6.4	1193690000
ZQV 1.5N/R12.8/10 GE	10 / 12.8	1193700000

Supply terminal

Type	Connection technology	Order No.
TXS SUPPLY	Screw connection	1240780000
TXZ SUPPLY	Tension clamp connection	1240790000

Additional accessory

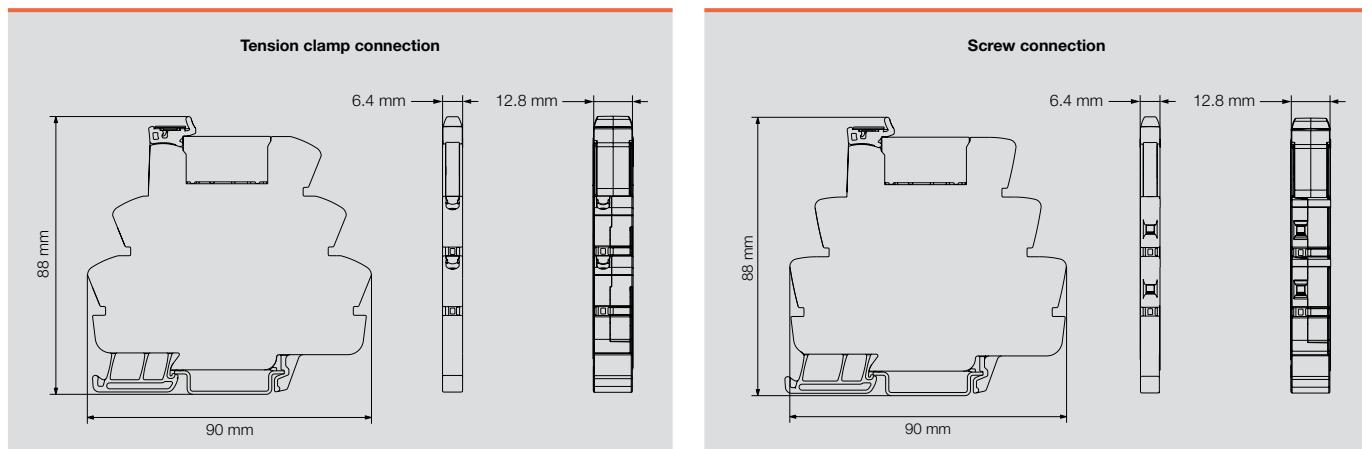
Type / Isolation plate	Order No.
TW TXS/TXZ R3.2	1240800000
Marker	
WS 10/6 MC Middle	1818400000
Screw driver	
SDK PH0	9008470000
SD 0.6 x 3.5 x 100	9008330000
End bracket	
WEW35/2 SW	1061210000

Technical data

Conductor	Screw connection	Tension clamp connection
1 conductor		
Solid H07V-U	mm ²	mm ²
Stranded H07V-K	mm ²	mm ²
... with wire end ferrule	mm ²	mm ²
... with wire end ferrule with plastic collar	mm ²	mm ²
2 conductor with same size		
Solid H07V-U	mm ²	mm ²
Stranded H07V-K	mm ²	mm ²
... with twin wire end ferrule H...D ZH	mm ²	mm ²
Clamping range AWG.../1	AWG	AWG
Clamping range AWG.../7	AWG	AWG
Clamping range AWG.../19	AWG	AWG
Plug gauge to IEC 60947-1	Size	A1 / B1
General data		
Nominal torque	Nm	0.14...1.5
Stripping length	mm	0.14...1.5
Continuous current ZQV 1.5N/R6.4	A	0.14...1.5
No. Contact durability relay / ZQV		A1 / B1
0.4		
8		
17.5; UL: 10		
10		
8		
17.5; UL: 10		
10		

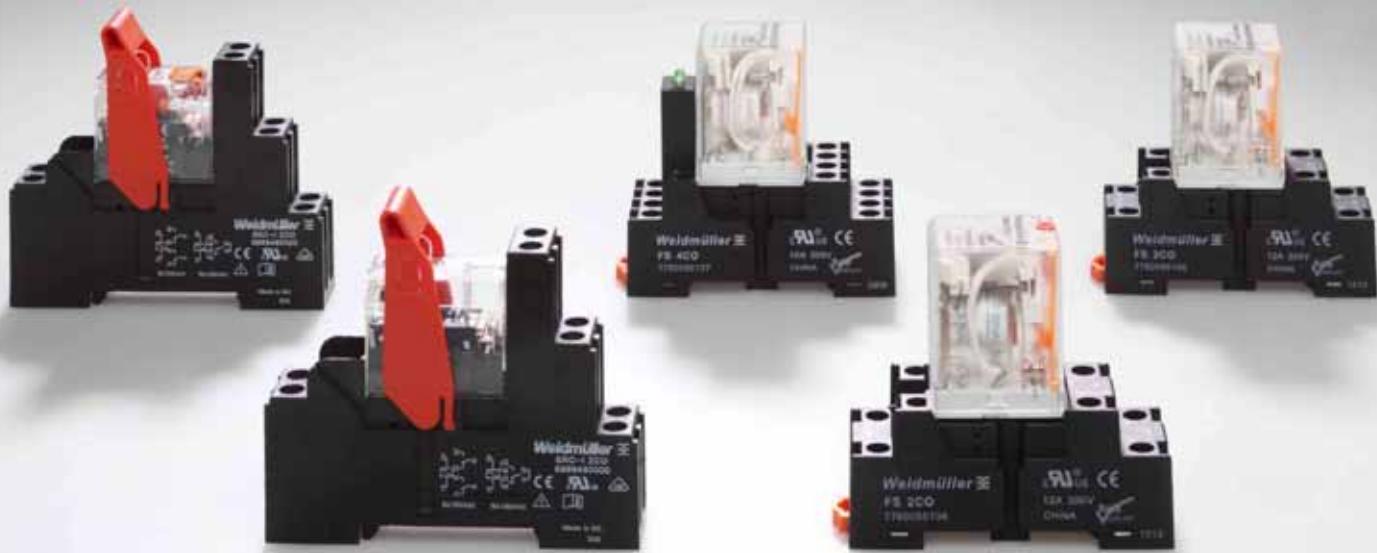
Note

Dimensions



POWER WITH PRECISION

WEIDMÜLLER'S QUALITY RANGE IN
ELECTROMECHANICAL RELAYS



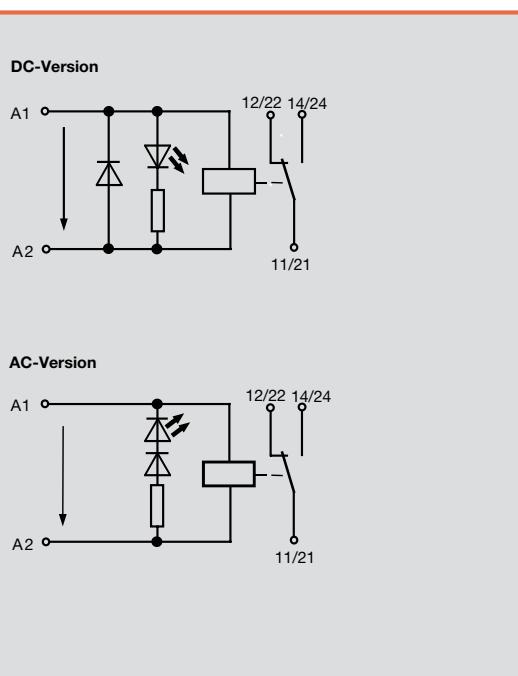
Weidmuller's Industrial Relays provide users with excellent reliability and installation convenience. Whether you require space saving, high power or frequency, our wide range of relay modules provide the proper solution for all your industrial application needs.

RIDERSERIES - Relay modules

RCI KIT with screw connection

1 CO

- Kit includes relay, base & hold down clip
- 4.000 VA switching capacity
- Stable plug-in connections
- LED (AC red / DC green) integrated in relay module
- Protective suppressor circuit for DC coil
- Optional test button with latching function and inspection window
- Identification of coils (AC red / DC blue)



Output	
Switching voltage AC, max.	250 V
Continuous current	16 A
Contact material	AgNi 90/10
Mechanical service life	AC coil 5×10^5 switching operations, DC coil 10×10^5 switching operations
Sparkover time / Drop-out time	7 ms / 3 ms
Rated data	
Status indicator / Free-wheel diode	Green LED = DC coil; red LED = AC coil / Yes
Ambient temperature (operational)	-40 °C...+70 °C
Flammability class UL 94	V-0
Humidity	40 °C / 93% rel. humidity, no condensation
Approvals	GL*; CE; cURus
Insulation coordination (EN 50 178)	
Rated voltage	250 V
Clearance and creepage distances for control/load side	> 8 mm
Overvoltage category	III
Pollution degree	3
Protective separation acc. to VDE 0106 part 101	Yes

Dimensions	Screw connection
Clamping range (nominal / min. / max.)	mm² 2.5 / 0.5 / 2.5
Length x width x height	mm 70 / 15.5 / 77
Note	* Valid only for RCI kits with test button

Ordering data

	24 V DC 1CO	24 V AC 1CO	115 V AC 1CO	230 V AC 1CO
Input				
Rated control voltage	24 V DC	24 V AC	115 V AC	230 V AC
Rated current AC		31.6 mA	6.6 mA	3.2 mA
Rated current DC	16.7 mA			
Power rating	400 mW	0.75 VA	0.75 VA	0.75 VA
AC Response/dropout Volt	16.8 V / 2.4 V	18 V / 3.6 V	86.3 V / 17.3 V	172.5 V / 34.5 V
DC Response/dropout Volt				
Coil resistance	1440 Ω ±10%	350 Ω ±10%	8100 Ω ±15%	32500 Ω ±15%

Ordering data

Relay module with socket	RCIKIT 24VDC 1CO LD/PB	RCIKIT 24VAC 1CO LD/PB	RCIKIT 115VAC 1CO LD/PB	RCIKIT 230VAC 1CO LD/PB
with test button	8881580000	8881590000	8897060000	8881600000
Type				
without test button	RCIKIT 24VDC 1CO LED	RCIKIT 24VAC 1CO LED	RCIKIT 115VAC 1CO LED	RCIKIT 230VAC 1CO LED
Type				
Order No.	8871000000	8871010000	8897090000	8871020000

Ordering data

w. test button	w. o. test button	w. test button	w. o. test button	w. test button	w. o. test button	
Type		Type		Type		
Order No.	RCI374AC4	RCI314AC4	RCI374R24	RCI314R24	RCI374S15	RCI314S15
	8870250000	8870100000	8870280000	8870130000	8870290000	8870140000

Note

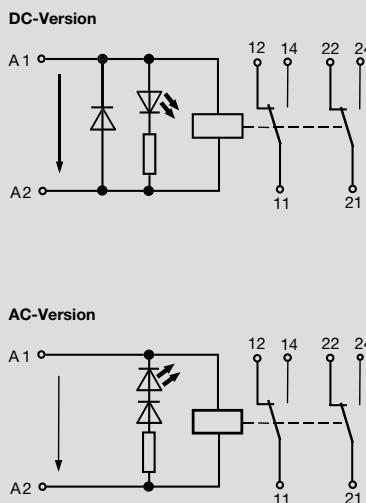
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RIDERSERIES - Relay modules

RCI KIT with screw connection

2 CO

- **Kit includes relay, base & hold down clip**
 - 4.000 VA switching capacity
 - Stable plug-in connections
 - LED (AC red / DC green) integrated in relay module
 - Protective suppressor circuit for DC coil
 - Optional test button with latching function and inspection window
 - Identification of coils (AC red / DC blue)



Output	
Switching voltage AC, max.	250 V
Continuous current	8 A / 1 contact
Contact material	AgNi 90/10
Mechanical service life	AC coil 5×10^5 switching operations, DC coil 10×10^5 switching operations
Sparkover time / Drop-out time	7 ms / 2 ms
Rated data	
Status indicator / Free-wheel diode	Green LED = DC coil; red LED = AC coil / Yes
Ambient temperature (operational)	-40 °C...+70 °C
Flammability class UL 94	V-0
Humidity	40°C / 93% rel. humidity, no condensation
Approvals	GL*; CE; cURus
Insulation coordination (EN 50 178)	
Rated voltage	250 V
Clearance and creepage distances for control/load side	> 8 mm
Oversupply category	III
Pollution degree	3
Protective separation acc. to VDE 0106 part 101	Yes

Ordering data	24 V DC 2CO	24 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Input				
Rated control voltage	24 V DC	24 V AC	115 V AC	230 V AC
Rated current AC		31.6 mA	6.6 mA	3.2 mA
Rated current DC	16.7 mA			
Power rating	400 mW	0.75 VA	0.75 VA	0.75 VA
AC Response/dropout Volt		18 V / 3.6 V	86.3 V / 17.3 V	172.5 V / 34.5 V
DC Response/dropout Volt	16.8 V / 2.4 V			
Coil resistance	1440 Ω \pm 10%	350 Ω \pm 10%	8100 Ω \pm 15%	32500 Ω \pm 15%

Ordering data					
Relay module with socket					
with test button	Type	RCIKIT 24VDC 2CO LD/PB	RCIKIT 24VAC 2CO LD/PB	RCIKIT 115VAC 2CO LD/PB	RCIKIT 230VAC 2CO LD/PB
	Order No.	8881610000	8881620000	8897080000	8881630000
without test button	Type	RCIKIT 24VDC 2CO LED	RCIKIT 24VAC 2CO LED	RCIKIT 115VAC 2CO LD	RCIKIT 230VAC 2CO LED
	Order No.	8881620000	8881630000	8897160000	8881650000

Ordering data	w. test button	w.o. test button						
Type	RCI484AC4	RCI424AC4	RCI484R24	RCI424R24	RCI484S15	RCI424S15	RCI484T30	RCI424T30
Order No.	8870320000	8870180000	8870350000	8870210000	8870360000	8870220000	8870370000	8870230000

RCI relay module

1 CO AC/DC coil

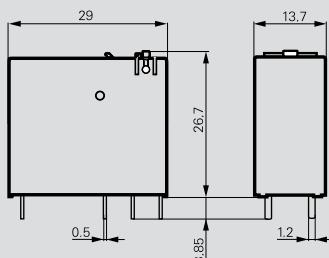
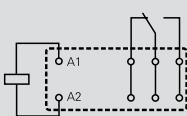
- 4.000 VA switching capacity
- Stable plug-in connections
- Optional test button with latching function and inspection window
- Optional status indicator (AC red/ DC green)
- Optional protective suppressor circuit
- Identification of coils (AC red / DC blue)



Circuit diagram

View on solder pins
dimensions in mm

1 C/O changeover contacts



Output

Switching voltage AC, max.	250 V
Continuous current	16 A
Contact material	AgNi 90/10
Mechanical service life	AC coil 5×10^5 switching operations, DC coil 10×10^5 switching operations

Sparkover time / Drop-out time 7 ms / 3 ms

Rated data

Ambient temperature (operational) $-40^{\circ}\text{C}...+70^{\circ}\text{C}$

Flammability class UL 94 V-0

Humidity $40^{\circ}\text{C} / 93\% \text{ rel. humidity, no condensation}$

Approvals cURus; VDE

Insulation coordination (EN 50 178)

Rated voltage 250 V

Clearance and creepage distances for control/load side > 8 mm

Overvoltage category III

Pollution severity 3

Protective separation acc. to VDE 0106 part 101 Yes

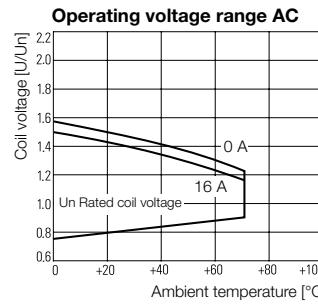
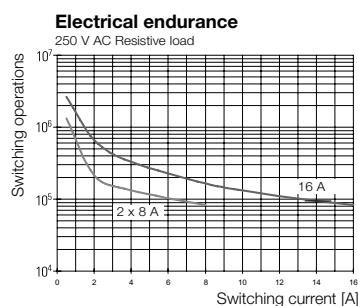
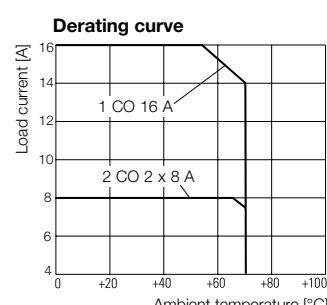
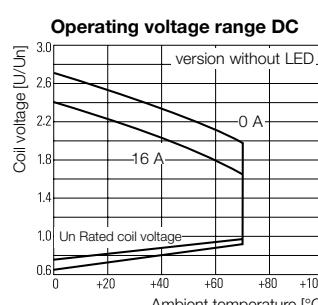
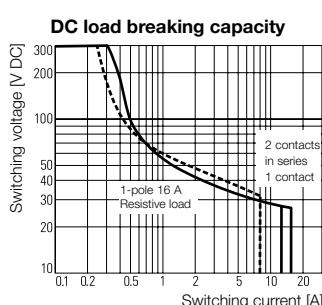
Dimensions

Plug-in connection

Length x width x height mm 29 / 13.7 / x

Note x = 25.5 without test button / 26.7 with test button

Applications



RIDERSERIES - Relay

RCI relay module

1 CO AC/DC coil

Type code	RCI			
Type	RIDER Control Industrial			
Type of construction				
3	1-pole, 16 A			
4	2-pole, 8 A			
Type of contact				
1	1 CO contact without test button			
2	2 CO contacts without test button			
7	1 CO contact with test button			
8	2 CO contacts with test button			
Contact material				
4	AgNi 90/10			
Coil				
012	12 V DC			
024	24 V DC			
048	48 V DC			
110	110 V DC			
524	24 V AC			
615	115 V AC			
730	230 V AC			
AB2	12 V DC+LED+diode			
AC4	24 V DC+LED+diode			
AE8	48 V DC+LED+diode			
BB0	110 V DC+LED+diode			
R24	24 V AC+LED			
S15	115 V AC+LED			
T30	230 V AC+LED			

Ordering data

Input		12 V DC 1CO	24 V DC 1CO	48 V DC 1CO	110 V DC 1CO
Rated control voltage		12 V DC	24 V DC	48 V DC	110 V DC
DC Response/dropout Voltage		8.4 V / 1.2 V	16.8 V / 2.4 V	33.6 V / 4.8 V	77 V / 11 V
Power rating		400 mW	400 mW	400 mW	400 mW
Rated current DC		33.3 mA	16.7 mA	8.7 mA	4.1 mA
Coil resistance		360 Ω ±10%	1440 Ω ±10%	5520 Ω ±10%	26600 Ω ±12%

Ordering data Relay module

Standard	Type	RCI314012	RCI314024	RCI314048	RCI314110
	Order No.	8869800000	8869810000	8869820000	8869830000
with test button	Type	RCI374012	RCI374024	RCI374048	RCI374110
	Order No.	8869950000	8869960000	8869970000	8869980000
with LED + freewheel diode	Type	RCI314AB2	RCI314AC4	RCI314AE8	RCI314BB0
	Order No.	8870090000	8870100000	8870110000	8870120000
with test button + LED	Type	RCI374AB2	RCI374AC4	RCI374AE8	RCI374BB0
+ freewheel diode	Order No.	8870240000	8870250000	8870260000	8870270000

Note

Ordering data

Input		24 V AC 1CO	115 V AC 1CO	230 V AC 1CO
Rated control voltage		24 V AC	115 V AC	230 V AC
AC Response/dropout Voltage		18 V / 3.6 V	86.3 V / 17.3 V	172.5 V / 34.5 V
Power rating		0.75 VA	0.75 VA	0.75 VA
Rated current AC		31.6 mA	6.6 mA	3.2 mA
Coil resistance		350 Ω ±10%	8100 Ω ±15%	32500 Ω ±15%

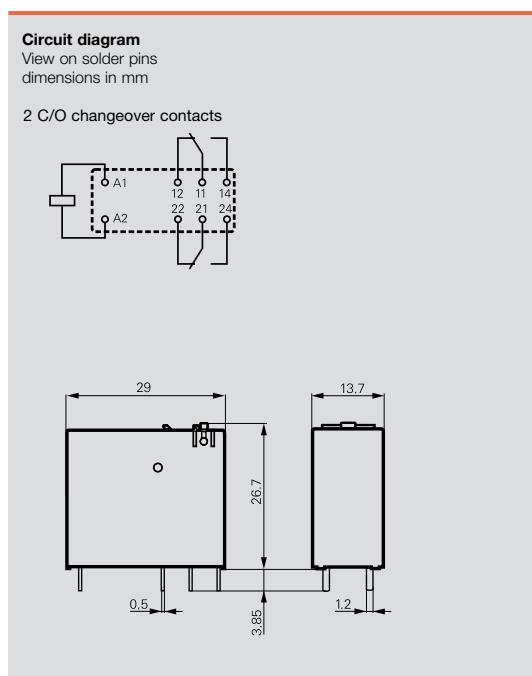
Ordering data Relay module

Standard	Type	RCI314524	RCI314615	RCI314730
	Order No.	8869840000	8869850000	8869860000
with test button	Type	RCI374524	RCI374615	RCI374730
	Order No.	8869990000	8870000000	8870010000
with LED	Type	RCI314R24	RCI314S15	RCI314T30
	Order No.	8870130000	8870140000	8870150000
with test button + LED	Type	RCI374R24	RCI374S15	RCI374T30
	Order No.	8870280000	8870290000	8870300000

Note

RCI relay module 2 CO AC/DC coil

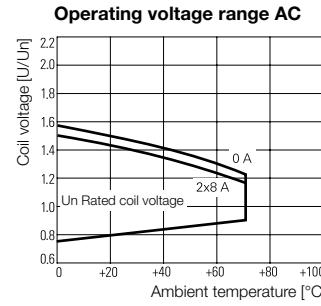
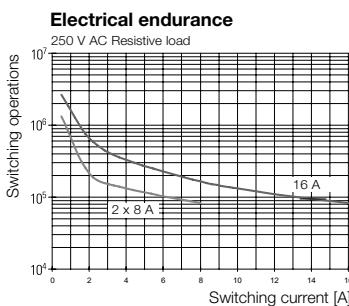
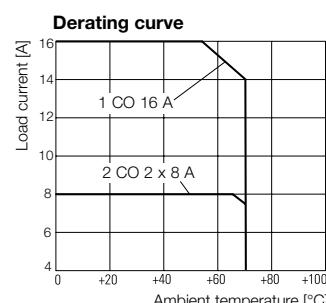
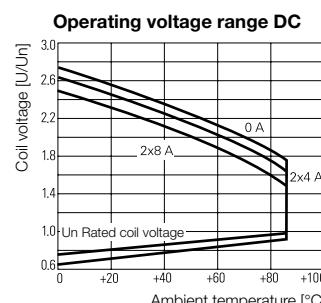
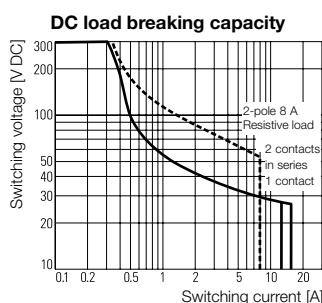
- 2.000 VA switching capacity
- Stable plug-in connections
- Optional test button with latching function and inspection window
- Optional status indicator (AC red / DC green)
- Optional protective suppressor circuit
- Identification of coils (AC red / DC blue)



Output	
Switching voltage AC, max.	250 V
Continuous current	8 A / 1 contact
Contact material	AgNi 90/10
Mechanical service life	AC coil 5×10^5 switching operations, DC coil 10×10^5 switching operations
Sparkover time / Drop-out time	7 ms / 2 ms
Rated data	
Ambient temperature (operational)	-40 °C...+70 °C
Flammability class UL 94	V-0
Humidity	40°C / 93% rel. humidity, no condensation
Approvals	cURus; VDE
Insulation coordination (EN 50 178)	
Rated voltage	250 V
Clearance and creepage distances for control/load side	> 8 mm
Oversupply category	III
Pollution degree	3
Protective separation acc. to VDE 0106 part 101	Yes

Dimensions	Plug-in connection
Length x width x height	mm 29 / 13.7 / x x = 25.5 without test button / 26.7 with test button
Note	

Applications



RIDERSERIES - Relay modules

RCI relay module

2 CO AC/DC coil

Type code	RCI			
Type	RIDER Control Industrial			
Type of construction				
	3 1-pole, 16 A			
	4 2-pole, 8 A			
Type of contact				
	1 1 CO contact without test button			
	2 2 CO contacts without test button			
	7 1 CO contact with test button			
	8 2 CO contacts with test button			
Contact material				
	4 AgNi 90/10			
Coil				
012	12 V DC			
024	24 V DC			
048	48 V DC			
110	110 V DC			
524	24 V AC			
615	115 V AC			
730	230 V AC			
AB2	12 V DC+LED+diode			
AC4	24 V DC+LED+diode			
AE8	48 V DC+LED+diode			
BB0	110 V DC+LED+diode			
R24	24 V AC+LED			
S15	115 V AC+LED			
T30	230 V AC+LED			

Ordering data

Ordering data		12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO
Input					
Rated control voltage		12 V DC	24 V DC	48 V DC	110 V DC
DC Response/dropout Voltage		8.4 V / 1.2 V	16.8 V / 2.4 V	33.6 V / 4.8 V	77 V / 11 V
Power rating		400 mW	400 mW	400 mW	400 mW
Rated current DC		33.3 mA	16.7 mA	8.7 mA	4.1 mA
Coil resistance		360 Ω ±10%	1440 Ω ±10%	5520 Ω ±10%	26600 Ω ±12%

Ordering data

Relay module		12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO
Standard	Type	RCI424012	RCI424024	RCI424048	RCI424110
	Order No.	8869870000	8869890000	8869900000	8869910000
with test button	Type	RCI484012	RCI484024	RCI484048	RCI484110
	Order No.	8870200000	8870300000	8870400000	8870500000
with LED + freewheel diode	Type	RCI424AB2	RCI424AC4	RCI424AE8	RCI424BB0
	Order No.	8870170000	8870180000	8870190000	8870200000
with test button + LED + freewheel diode	Type	RCI484AB2	RCI484AC4	RCI484AE8	RCI484BB0
+ freewheel diode	Order No.	8870310000	8870320000	8870330000	8870340000

Note

Ordering data

Ordering data		24 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Input				
Rated control voltage		24 V AC	115 V AC	230 V AC
AC Response/dropout Voltage		18 V / 3.6 V	86.3 V / 17.3 V	172.5 V / 34.5 V
Power rating		0.75 VA	0.75 VA	0.75 VA
Rated current AC		31.6 mA	6.6 mA	3.2 mA
Coil resistance		350 Ω ±10%	8100 Ω ±15%	32500 Ω ±15%

Ordering data

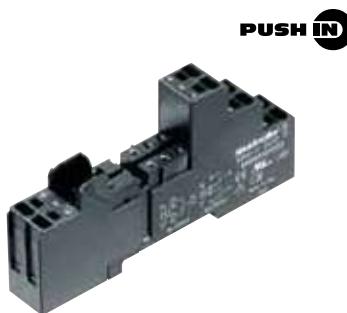
Relay module		24 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Standard	Type	RCI424524	RCI424615	RCI424730
	Order No.	8869920000	8869930000	8869940000
with test button	Type	RCI484524	RCI484615	RCI484730
	Order No.	8870060000	8870070000	8870080000
with LED	Type	RCI424R24	RCI424S15	RCI424T30
	Order No.	8870210000	8870220000	8870230000
with test button + LED	Type	RCI484R24	RCI484S15	RCI484T30
+ LED	Order No.	8870350000	8870360000	8870370000

Note

RIDERSERIES - Relay Accessories

Accessories for RCI relay modules, 1 CO

Plug-in module with PUSH IN connection



Plug-in module with screw connection



Technical data

Rated current	2 x 12 A*
Rated voltage	240 V AC
Dielectric strength of coil contacts	4000 V _{eff}
Ambient temperature (operational)	-25 °C...+85 °C
Protection class (IEC 61810)	IP20
Connection cross-section	
- Solid-core wire	2 x 1.5 mm ²
- Stranded wire	2 x 1.5 mm ²
- with ferrule	2 x 1.0 mm ²
Rated torque acc. to IEC 61984 for screw connection	

Rated current	2 x 12 A*
Rated voltage	240 V AC
Dielectric strength of coil contacts	4000 V _{eff}
Ambient temperature (operational)	-25 °C...+85 °C
Protection class (IEC 61810)	IP20
Connection cross-section	
- Solid-core wire	2 x 2.5 mm ²
- Stranded wire	2 x 2.5 mm ²
- with ferrule	2 x 1.5 mm ²
Rated torque acc. to IEC 61984 for screw connection	0.5 Nm / max. 0.7 Nm

Rated current	2 x 12 A*
Rated voltage	240 V AC
Dielectric strength of coil contacts	> 3000 V _{eff}
Ambient temperature (operational)	-25 °C...+85 °C
Protection class (IEC 61810)	IP20
Connection cross-section	
- Solid-core wire	2 x 2.5 mm ²
- Stranded wire	2 x 2.5 mm ²
- with ferrule	2 x 1.5 mm ²
Rated torque acc. to IEC 61984 for screw connection	0.5 Nm / max. 0.7 Nm

* For 1-pole relay modules (16 A), the following terminals must be connected: 11 with 21, 12 with 22, and 14 with 24.

* For 1-pole relay modules (16 A), the following terminals must be connected: 11 with 21, 12 with 22, and 14 with 24.

Ordering data

Description	Type	Order No.
Plug-in module, snaps onto TS35 DIN mounting rail, 2-pole	SRC-I 2CO P	8869500000

Description	Type	Order No.
Plug-in module, snaps onto TS35 DIN mounting rail, 2-pole	SRC-I 2CO	8869490000

Accessories

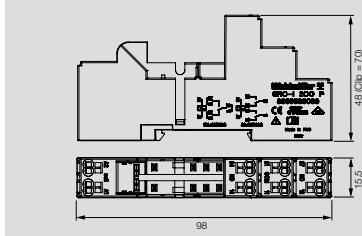
Description	Type	Order No.
Plastic retaining clip	SRC-I CLIP HP	8869510000
Metal retaining clip	SRC-I CLIP HM RCI	1132090000
Label	SRC-I MARK	8869530000
MultiCard 6x15 mm	ESG 6/15 K MC NEUTR. WS	1880100000
 Cross-connector for PUSH IN base, 2-pole, 12 A	SRC-I QV	8870840000
 Cross-connector for screw base, 8-pole		

Description	Type	Order No.
Plastic retaining clip	SRC-I CLIP HP	8869510000
Metal retaining clip	SRC-I CLIP HM RCI	1132090000
Label	SRC-I MARK	8869530000
MultiCard 6x15 mm	ESG 6/15 K MC NEUTR. WS	1880100000
 Cross-connector for PUSH IN base, 2-pole, 12 A	SRC-I QV	8870840000
 Cross-connector for screw base, 8-pole		

Description	Type	Order No.
Plastic retaining clip	SRC-I CLIP HP	8869510000
Metal retaining clip	SRC-I CLIP HM RCI	1132090000
Label	SRC-I MARK	8869530000
MultiCard 6x15 mm	ESG 6/15 K MC NEUTR. WS	1880100000
 Cross-connector for PUSH IN base, 2-pole, 12 A	SRC-I QV	8870840000
 Cross-connector for screw base, 8-pole		

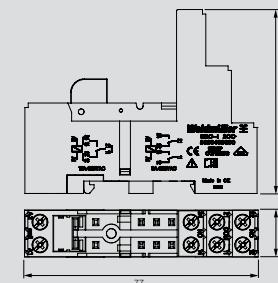
Dimensions

SRC-I 2 CO P



Dimensions

SRC-I 2 CO



Dimensions in mm

RIDERSERIES - Relay Accessories

LED and protective modules for the SRC-I plug-in frame

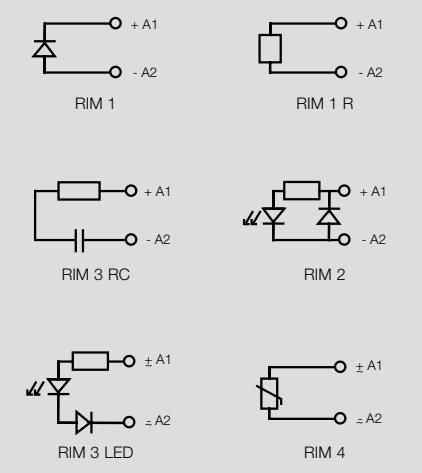
Plug simply into the base module; reverse-connect protection. Connect parallel to coil.

Ordering data

Description	Type	Order No.	Order No.
Free Wheel diode 1N4007	RIM-I 1 6/230V	8869580000	
Resistor 100 kΩ 1 Watt	RIM-I 1 R 110/230V	8870830000	
RC element 6 ... 60 V AC; 470 Ω / 220 nF	RIM-I 3 6/60VAC	8869770000	
RC element 110 ... 230 V AC; 4,7 Ω / 10 nF	RIM-I 3 110/230VAC	8869790000	
Varistor protection 24 V; S07K30	RIM-I 4 24VUC*	8869710000	
Varistor protection 110 V; S07K130	RIM-I 4 110VUC*	8869730000	
Varistor protection 230 V; S07K275	RIM-I 4 230VUC*	8869750000	
LED	red	green	
LED 6 ... 24 V DC with free wheel diode	RIM-I 2 6/24VDC	8869590000	8869600000
LED 24 ... 60 V DC with free wheel diode	RIM-I 2 24/60VDC	8869670000	8869680000
LED 110 ... 230 V DC with free wheel diode	RIM-I 2 110/230VDC	8869690000	8869700000
LED 6 ... 24 V DC / V AC	RIM-I 3 6/24VUC*	8869630000	8869640000
LED 24 ... 60 V DC / V AC	RIM-I 3 24/60VUC*	8869610000	8869620000
LED 110 ... 230 V DC / V AC	RIM-I 3 110/230VUC*	8869650000	8869660000

Type	Order No.	Order No.
RIM-1 6/230V	8869580000	
RIM-I 1 R 110/230V	8870830000	
RIM-I 3 6/60VAC	8869770000	
RIM-I 3 110/230VAC	8869790000	
RIM-I 4 24VUC*	8869710000	
RIM-I 4 110VUC*	8869730000	
RIM-I 4 230VUC*	8869750000	
red	green	
RIM-I 2 6/24VDC	8869590000	8869600000
RIM-I 2 24/60VDC	8869670000	8869680000
RIM-I 2 110/230VDC	8869690000	8869700000
RIM-I 3 6/24VUC*	8869630000	8869640000
RIM-I 3 24/60VUC*	8869610000	8869620000
RIM-I 3 110/230VUC*	8869650000	8869660000

*UC (AC/DC)

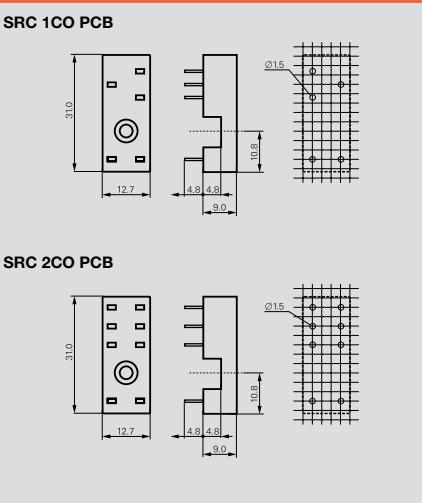
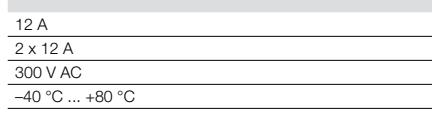


Plug-in base with PCB connections

for RCL relay modules

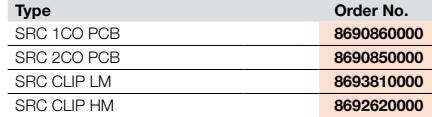
Technical data

Nominal current	1-pole
Nominal current	2-pole
Nominal voltage	
Ambient temperature (operational)	–40 °C ... +80 °C
Approvals	



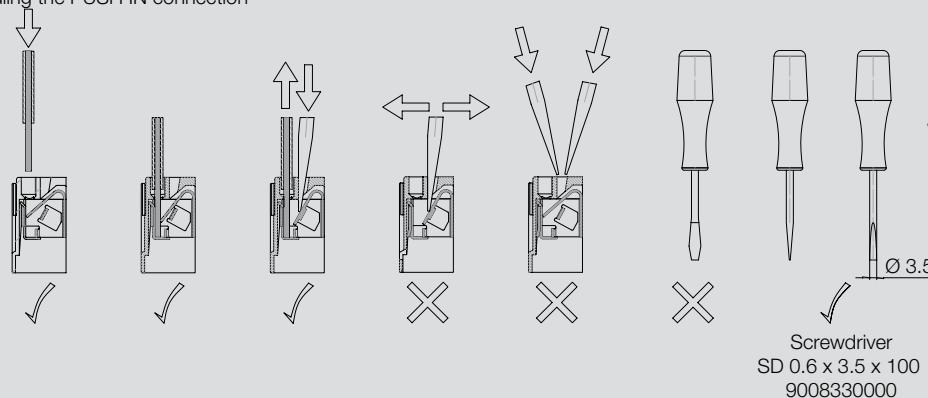
Ordering data

Description	Type	Order No.
Plug-in base with PCB connections, pinning 3.5 mm	SRC 1CO PCB	8690860000
Plug-in base with PCB connections, pinning 5 mm	SRC 2CO PCB	8690850000
Accessory: metal retaining clip, 15.7 mm high	SRC CLIP LM	8693810000
Accessory: metal retaining clip, 25.5 mm high	SRC CLIP HM	8692620000

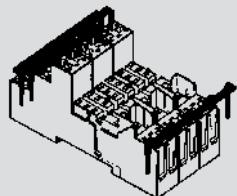


Warnings and notes on usage

Handling the PUSH IN connection

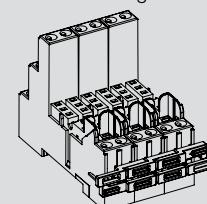


Cross-connector mounting for PUSH IN base



If more than two poles need to be connected with stacked cross-connector ridges, then the lower ridge must be stripped and shortened to the proper length so it will fit.

Cross-connector mounting for screw base



RIDERSERIES - Relay Accessories

Accessories for
RCI relay modules,
2 CO

Plug-in module with PUSH IN connection



Plug-in module with screw connection

Standard height



Plug-in module with screw connection

Low height



Technical data

Rated current	2 x 12 A	2 x 12 A	2 x 12 A
Rated voltage	240 V AC	240 V AC	240 V AC
Dielectric strength of coil contacts	4000 V _{eff}	> 3000 V _{eff}	> 3000 V _{eff}
Ambient temperature (operational)	-25 °C...+85 °C	-25 °C...+85 °C	-25 °C...+85 °C
Protection class (IEC 61810)	IP20	IP20	IP20
Stripping length	12 mm	8 mm	8 mm
Connection cross-section			
- Solid-core wire	1 x 1.5 mm ² / 2 x 1.0 mm ²	2 x 2.5 mm ²	2 x 2.5 mm ²
- Stranded wire	1 x 1.5 mm ² / 2 x 1.0 mm ²	2 x 2.5 mm ²	2 x 2.5 mm ²
- with ferrule	1 x 1.0 mm ² / 2 x 0.75 mm ²	2 x 1.5 mm ²	2 x 1.5 mm ²
Rated torque acc. to IEC 61984 for screw connection		0.5 Nm / max. 0.7 Nm	0.5 Nm / max. 0.7 Nm

Ordering data

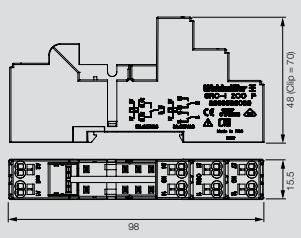
Description	Type	Order No.	Type	Order No.	Type	Order No.
Plug-in module, snaps onto TS35 DIN mounting rail, 2-pole	SRC-I 2CO P	8869500000	SRC-I 2CO	8869490000	SRC-I 2CO N	8869480000

Accessories

Description	Type	Order No.	Type	Order No.	Type	Order No.
Plastic retaining clip	SRC-I CLIP HP	8869510000	SRC-I CLIP HP	8869510000	SRC-I CLIP HP	8869510000
Metal retaining clip	SRC-I CLIP HM RCI	1132090000	SRC-I CLIP HM RCI	1132090000	SRC-I CLIP HM RCI	1132090000
Label	SRC-I MARK	8869530000	SRC-I MARK	8869530000	SRC-I MARK	8869530000
MultiCard 6x15 mm	ESG 6/15 K MC	1880100000	ESG 6/15 K MC	1880100000	ESG 6/15 K MC	1880100000
	NEUTR. WS		NEUTR. WS		NEUTR. WS	
	SRC-I QV P	8870840000				
Cross-connector for PUSH IN base, 2-pole, 12 A			SRC-I QV S	1132070000	SRC-I QV S	1132070000
Cross-connector for screw base, 8-pole						

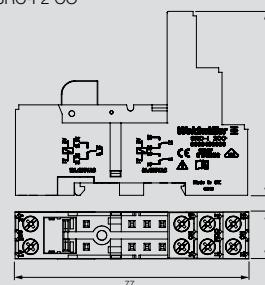
Dimensions

SRC-I 2 CO P



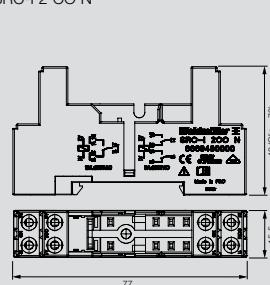
Dimensions

SRC-I 2 CO



Dimensions

SRC-I 2 CO N



Dimensions in mm

RIDERSERIES - Relay Accessories

LED and protective modules for the SRC-I plug-in frame

Plug simply into the base module; reverse-connect protection. Connect parallel to coil.

Ordering data

Description	Type	Order No.
Free Wheel diode 1N4007	RIM-I 1 6/230V	8869580000
Resistor 100 kΩ 1 Watt	RIM-I 1 R 110/230V	8870830000
RC element 6 ... 60 V AC; 470 Ω / 220 nF	RIM-I 3 6/60VAC	8869770000
RC element 110 ... 230 V AC; 4,7 Ω / 10 nF	RIM-I 3 110/230VAC	8869790000
Varistor protection 24 V; S07K30	RIM-I 4 24VUC*	8869710000
Varistor protection 110 V; S07K130	RIM-I 4 110VUC*	8869730000
Varistor protection 230 V; S07K275	RIM-I 4 230VUC*	8869750000
LED	red	green
LED 6 ... 24 V DC with free wheel diode	RIM-I 2 6/24VDC	8869590000
LED 24 ... 60 V DC with free wheel diode	RIM-I 2 24/60VDC	8869670000
LED 110 ... 230 V DC with free wheel diode	RIM-I 2 110/230VDC	8869690000
LED 6 ... 24 V DC / V AC	RIM-I 3 6/24VUC*	8869630000
LED 24 ... 60 V DC / V AC	RIM-I 3 24/60VUC*	8869610000
LED 110 ... 230 V DC / V AC	RIM-I 3 110/230VUC*	8869650000

Type	Order No.	Order No.
RIM-1 6/230V	8869580000	
RIM-I 1 R 110/230V	8870830000	
RIM-I 3 6/60VAC	8869770000	
RIM-I 3 110/230VAC	8869790000	
RIM-I 4 24VUC*	8869710000	
RIM-I 4 110VUC*	8869730000	
RIM-I 4 230VUC*	8869750000	
red	green	
RIM-I 2 6/24VDC	8869590000	8869600000
RIM-I 2 24/60VDC	8869670000	8869680000
RIM-I 2 110/230VDC	8869690000	8869700000
RIM-I 3 6/24VUC*	8869630000	8869640000
RIM-I 3 24/60VUC*	8869610000	8869620000
RIM-I 3 110/230VUC*	8869650000	8869660000

*UC (AC/DC)



Plug-in base with PCB connections

for RCL relay modules

Technical data

Nominal current	1-pole
Nominal current	2-pole
Nominal voltage	
Ambient temperature (operational)	–40 °C ... +80 °C
Approvals	

12 A
2 x 12 A
300 V AC
–40 °C ... +80 °C

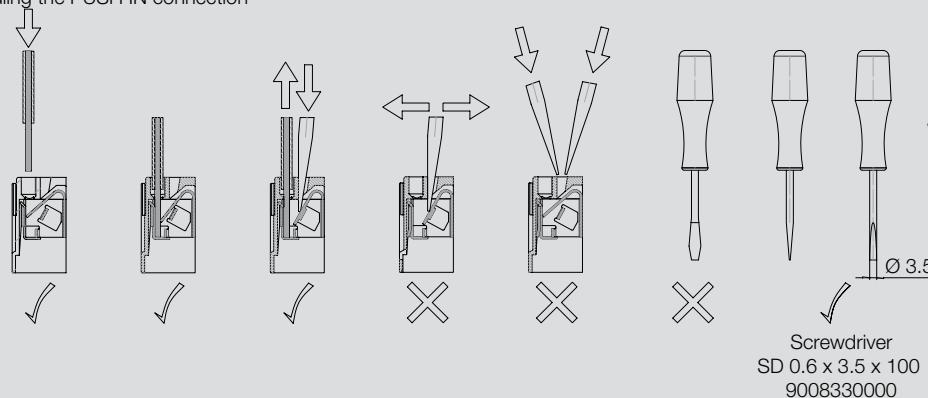
Ordering data

Description	Type	Order No.
Plug-in base with PCB connections, pinning 3.5 mm	SRC 1CO PCB	8690860000
Plug-in base with PCB connections, pinning 5 mm	SRC 2CO PCB	8690850000
Accessory: metal retaining clip, 15.7 mm high	SRC CLIP LM	8693810000
Accessory: metal retaining clip, 25.5 mm high	SRC CLIP HM	8692620000

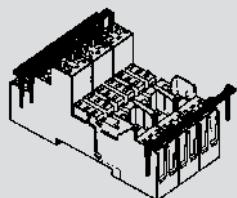
Type	Order No.
SRC 1CO PCB	8690860000
SRC 2CO PCB	8690850000
SRC CLIP LM	8693810000
SRC CLIP HM	8692620000

Warnings and notes on usage

Handling the PUSH IN connection

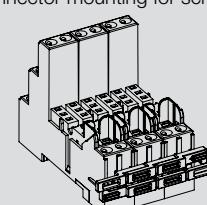


Cross-connector mounting for PUSH IN base



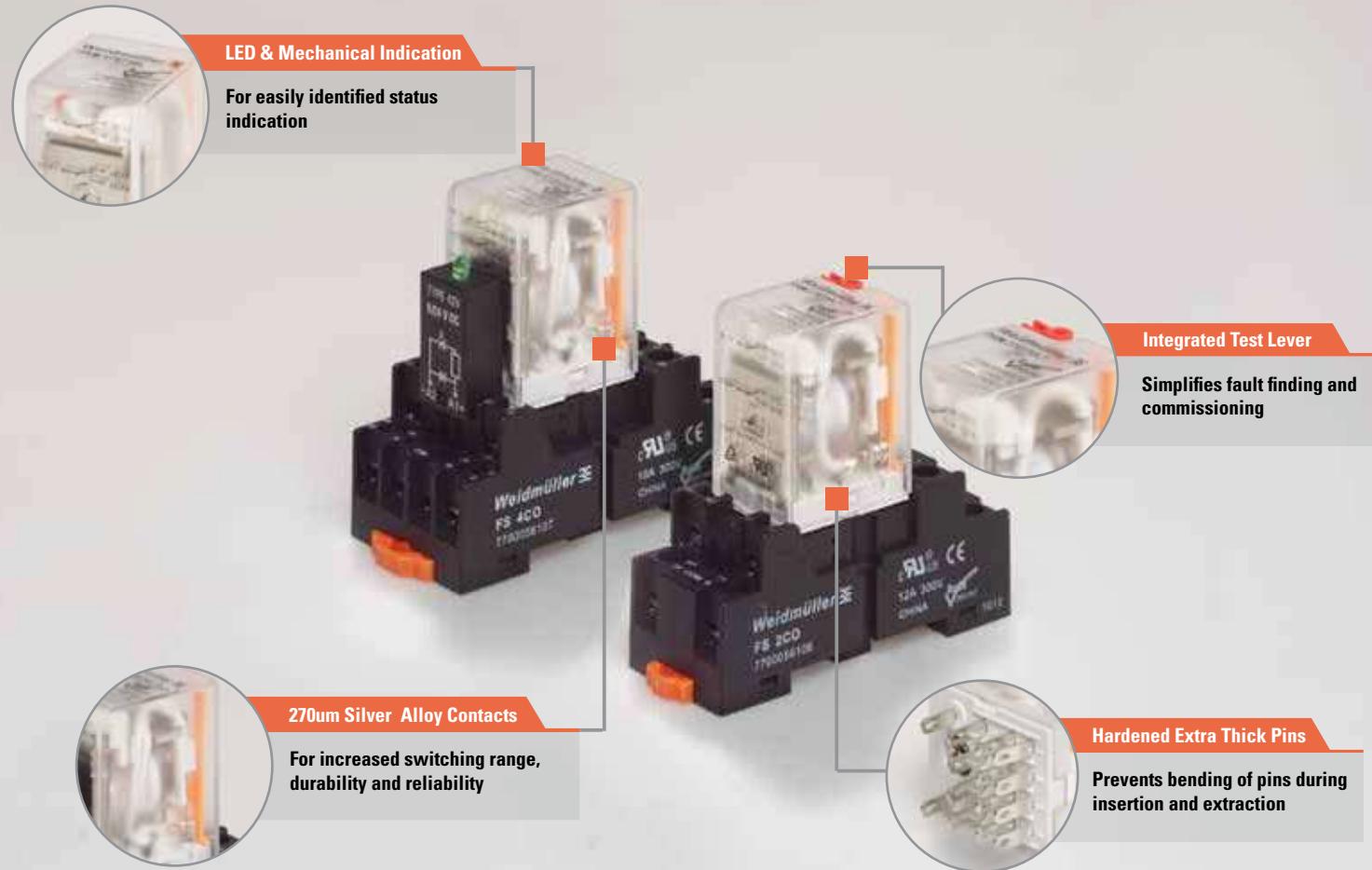
If more than two poles need to be connected with stacked cross-connector ridges, then the lower ridge must be stripped and shortened to the proper length so it will fit.

Cross-connector mounting for screw base



SWITCHING POWER WITH PRECISION

DRM ELECTROMECHANICAL RELAYS



Weidmüller's industrial relays provide users with excellent reliability and installation convenience. Whether you require space saving, High power or frequency — Our wide range of relay modules provides the proper solution for all your Industrial application needs.

- PLUG IN 2 Pole (DPDT) or 4 Pole (4PDT)
- Available with test button
- Free-wheel Diode for back EMF suppression
- Up to 10A rated carry current
- Large range of coil voltages
- Gold and silver contacts

PLUG-IN POWER

DRL ELECTROMECHANICAL RELAYS



Weidmuller's addition of the DRL plug-in relay range, ensures users will be able to find a relay suitable for any application within the Weidmuller range. With the comfort of proven quality, reliability & installation convenience.

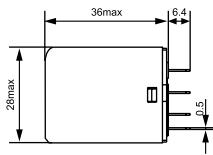
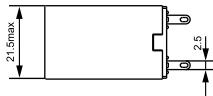
- Plug in 2 Pole (DPDT) or 4 Pole (4PDT)
- Led Indication & Mechanical Flag
- Strong Industrial Pinning (In commonly found arrangements)
- 10A Contact Rating (DPDT & 4PDT)
- Large Range of coil voltages
- Plug –in Expansion Modules Available

DRM Auxiliary / Signal Relay

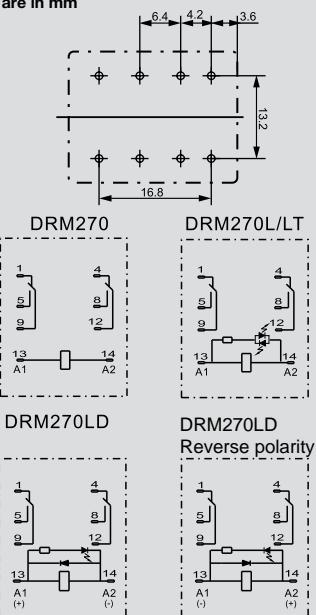
DRM 270 Relay

2 change over contacts AC/DC coil

- Small size with high sensitivity
- Reasonable structure with wide usage
- Various types available
- Approvals with UL/CSA cULus TÜV △



Circuit diagram
PIN top view
Dimensions are in mm



Output

Load (resistive)	10 A / 250 Vac
Switching power (resistive)	2500 VA, 300W
Contact resistance (initial)	≤ 50 mΩ
Min. load voltage / current	12 V / 10 mA or 5 V / 1 mA (gold plated contact)
Contact material	Silver alloy or silver alloy with gold plating
Electrical endurance / Mechanical endurance	> 25 × 10 ⁴ (1800 Ops/h) / > 2 × 10 ⁷ (18000 Ops/h)
Response / dropout delay at rated voltage	≤ 20 ms / ≤ 20 ms
Initial voltage between homopolar contacts / heteropolar contacts / contact and coil	1000VAC/1min / 1000VAC/1min / 1800VAC/1min (leakage current: 1mA)

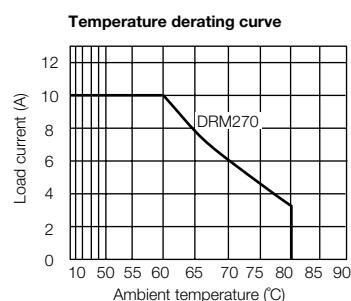
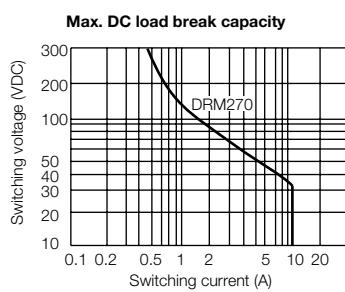
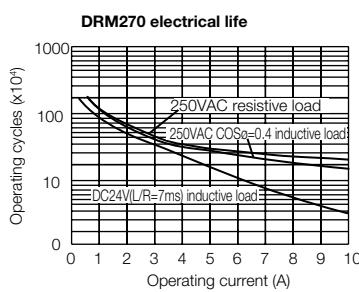
Input

Response voltage @ 25°C	DC: ≥ 75% of rated voltage, AC: ≥ 80% of rated voltage
Dropout voltage @ 25°C	DC: ≥ 10% of rated voltage, AC: ≥ 30% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Insulation resistance	≥ 1000 MΩ
Coil power consumption	DC: ≤ 0.9 W, AC: 1.2 VA

General

Ambient temperature	DC: -40 °C...+60°C, AC: -40 °C...+55°C
Storage temperature	-40 °C...+70°C
Humidity	35%~85% RH
Atmospheric pressure	86-106kPa
Shock resistance	10G (half wave of sine pulse: 11ms)
Vibration resistance	10~55Hz dual amplitude: 1.0mm 10~55Hz
Mounting	Push-in connection or PCB welding
Weight	35 g
Min. in package	20 pcs

Application



*For bases & other accessories please go to page 44

DRM Auxiliary / Signal Relay

DRM 270 Relay 2 change over contacts AC/DC coil

Type code	DRM					
Type DRM						
Type of construction						
2 change over contact						
Coil voltage						
006 6Vdc / 012 12Vdc						
024 24Vdc / 048 48Vdc						
110 110Vdc / 220 220Vdc						
524 24Vac / 548 48Vac						
615 115Vac / 730 230Vac						
LED	L (Red for AC coil; green for DC coil)					
Test lever	T (Red for AC coil; green for DC coil)					
Suppressor diode	D					

Ordering information

Input	24 V AC 2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO	
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	
Rated current (50Hz / 60Hz)	62.4mA/52.2mA	33.3mA/27.8mA	12.6mA/10.8mA	6.1mA/5.2mA	
Coil resistance	160Ω ±10%	600Ω ±10%	3.750Ω ±10%	16.000Ω ±10%	
Response / dropout voltage	19.2V / 7.2V	38.4V / 14.4V	92V / 34.5V	184V / 69V	
Max. voltage	26.4V	52.8V	126.5V	253V	
Power consumption	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	

Ordering information

Standard	Type	DRM270524	DRM270548	DRM270615	DRM270730
	Order No.	7760056055	7760056056	7760056057	7760056058
With LED	Type	DRM270524L	DRM270548L	DRM270615L	DRM270730L
	Order No.	7760056064	7760056065	7760056066	7760056067
With LED and test lever	Type	DRM270524LT	DRM270548LT	DRM270615LT	DRM270730LT
	Order No.	7760056073	7760056074	7760056075	7760056076
With LED, gold plated contact	Type				DRM270730L Au
	Order No.				7760056184
With LED and test lever, gold plated contact	Type				DRM270730LT Au
	Order No.				7760056186

Note

Ordering information

Input	12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO	220 V DC 2CO
Rated voltage	12 V DC	24 V DC	48 V DC	110V DC	220V DC
Rated current	75mA	36.9mA	18.5mA	10mA	5.2mA
Coil resistance	160Ω ±10%	650Ω ±10%	2,600Ω ±10%	11,000Ω ±10%	44,000Ω ±10%
Response / dropout voltage	9V / 1.2V	18V / 2.4V	36V / 4.8V	82.5V / 11V	165V / 22V
Max. voltage	13.2V	26.4V	52.8V	121.0V	242V
Power consumption	0.9W	0.9W	0.9W	0.9W	0.9W

Ordering information Relay

Standard	Type	DRM270012	DRM270024	DRM270048	DRM270110	DRM270220
	Order No.	7760056050	7760056051	7760056052	7760056053	7760056054
With LED	Type	DRM270012L	DRM270024L	DRM270048L	DRM270110L	DRM270220L
	Order No.	7760056059	7760056060	7760056061	7760056062	7760056063
With LED and test lever	Type	DRM270012LT	DRM270024LT	DRM270048LT	DRM270110LT	DRM270220LT
	Order No.	7760056068	7760056069	7760056070	7760056071	7760056072
With LED and suppressor diode	Type		DRM270024LD			
	Order No.		7760056077			
With LED, gold plated contact	Type		DRM270024L Au			
	Order No.		7760056183			
With LED and test lever, gold plated contact	Type		DRM270024LT Au			
	Order No.		7760056185			

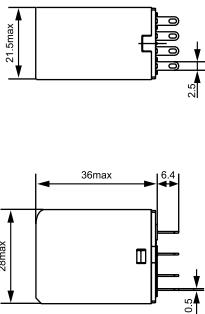
*For bases & other accessories please go to page 44

DRM Auxiliary / Signal Relay

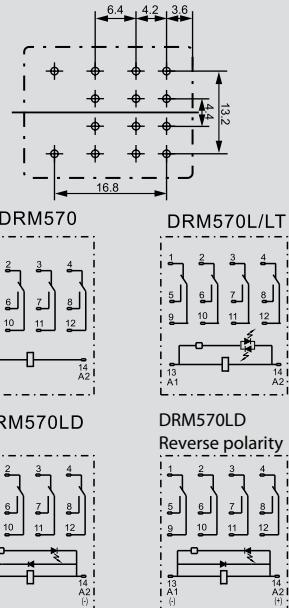
DRM 570 Relay

4 change over contacts AC/DC coil

- Small size with high sensitivity
- Reasonable structure with wide usage
- Various types available
- Approvals with UL/CSA TÜV



Circuit diagram
PIN top view
Dimensions are in mm



Output

Load (resistive)	10 A / 250 Vac
Switching power (resistive)	2500 VA, 300W
Contact resistance (initial)	$\leq 50 \text{ m}\Omega$
Min. load voltage / current	12 V / 10 mA or 5 V / 1 mA (gold plated contact)
Contact material	Silver alloy or silver alloy with gold plating
Electrical endurance / Mechanical endurance	$> 25 \times 10^4$ (1800 Ops/h) / $> 2 \times 10^7$ (18000 Ops/h)
Response / dropout delay at rated voltage	$\leq 20 \text{ ms} / \leq 20 \text{ ms}$
Initial voltage between homopolar contacts / heteropolar contacts / contact and coil	2000VAC/1min / 1000VAC/1min / 2000VAC/1min (leakage current: 1mA)

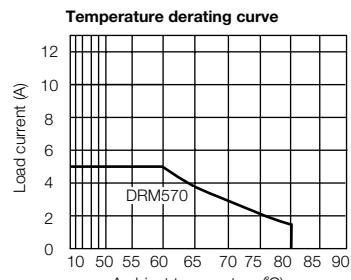
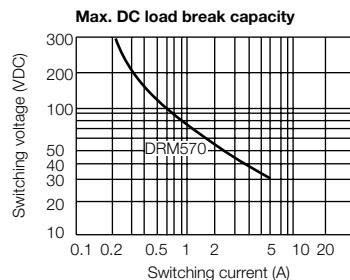
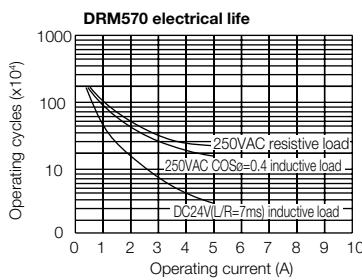
Input

Response voltage @ 25°C	DC: $\geq 75\%$ of rated voltage, AC: $\geq 80\%$ of rated voltage
Dropout voltage @ 25°C	DC: $\geq 10\%$ of rated voltage, AC: $\geq 30\%$ of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Insulation resistance	$\geq 1000 \text{ M}\Omega$
Coil power consumption	DC: $\leq 0.9 \text{ W}$, AC: 1.2 VA

General

Ambient temperature	DC: -40 °C...+60°C, AC: -40 °C...+55°C
Storage temperature	-40°C...+70°C
Humidity	35%~85% RH
Atmospheric pressure	86-106kPa
Shock resistance	10G (half wave of sine pulse: 11ms)
Vibration resistance	10~55Hz dual amplitude: 1.0mm 10~55Hz
Mounting	Push-in connection or PCB welding
Weight	35 g
Min. in package	20 pcs

Application



*For bases & other accessories please go to page 44

DRM Auxiliary / Signal Relay

DRM 570 Relay 4 change over contacts AC/DC coil

Ordering information

Input	24 V AC 4CO	48 V AC 4CO	115 V AC 4CO	230 V AC 4CO	
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	
Rated current (50Hz / 60Hz)	62.4mA/52.2mA	33.3mA/27.8mA	12.6mA/10.8mA	6.1mA/5.2mA	
Coil resistance	160Ω ±10%	615Ω ±10%	4.34Ω ±10%	15.000Ω ±10%	
Response / dropout voltage	19.2V / 7.2V	38.4V / 14.4V	92V / 34.5V	184V / 69V	
Max. voltage	26.4V	52.8V	126.5V	253V	
Power consumption	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	1.0~1.2VA(60Hz)	

Type code	DRM				
Type DRM					
Type of construction					
4 change over contact					
Coil voltage					
006 6Vdc / 012 12Vdc					
024 24Vdc / 048 48Vdc					
110 110Vdc / 220 220Vdc					
524 24Vac / 548 48Vac					
615 115Vav / 730 230Vac					
LED	L (Red for AC coil; green for DC coil)				
Test lever	T (Red for AC coil; green for DC coil)				
Suppressor diode	D				

Note

Ordering information

Input	12 V DC 4CO	24 V DC 4CO	48 V DC 4CO	110 V DC 4CO	220 V DC 4CO
Rated voltage	12 V DC	24 V DC	48 V DC	110V DC	220V DC
Rated current	75mA	36.9mA	18.5mA	10mA	5.2mA
Coil resistance	160Ω ±10%	630Ω ±10%	2,600Ω ±10%	11,000Ω ±10%	42,000Ω ±10%
Response / dropout voltage	9V / 1.2V	18V / 2.4V	36V / 4.8V	82.5V / 11V	165V / 22V
Max. voltage	13.2V	26.4V	52.8V	121.0V	242V
Power consumption	0.9W	0.9W	0.9W	0.9W	0.9W

Ordering information

Standard	Type	DRM570012	DRM570024	DRM570048	DRM570110	DRM570220
	Order No.	7760056078	7760056079	7760056080	7760056081	7760056082
With LED	Type	DRM570012L	DRM570024L	DRM570048L	DRM570110L	DRM570220L
	Order No.	7760056087	7760056088	7760056089	7760056090	7760056091
With LED and test lever	Type	DRM570012LT	DRM570024LT	DRM570048LT	DRM570110LT	DRM570220LT
	Order No.	7760056096	7760056097	7760056098	7760056099	7760056100
With LED and suppressor diode	Type		DRM570024LD			
	Order No.		7760056105			
With LED, gold plated contact	Type		DRM570024L Au			
	Order No.		7760056187			
With LED and test lever, gold plated contact	Type		DRM570024LT Au			
	Order No.		7760056189			

*For bases & other accessories please go to page 44

DRL Power Relay

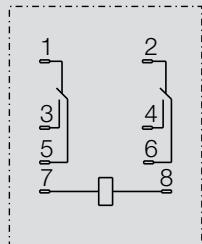
DRL Power Relay 2 change over contacts, AC/DC coil

- Arc shield
- High dielectric strength: 2,000 V
- Approvals with UL/CSA TÜV

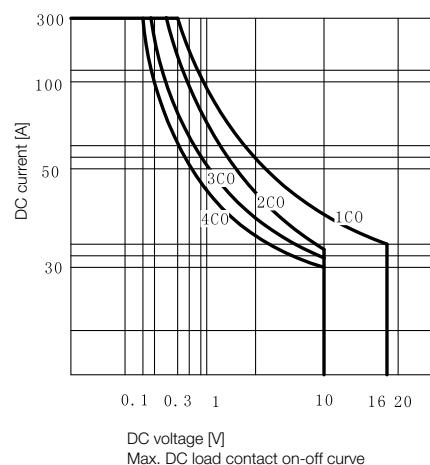
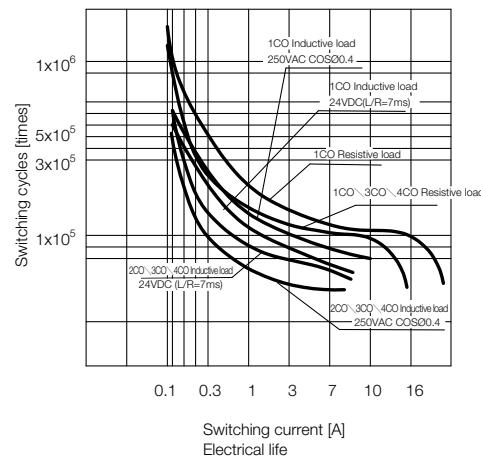
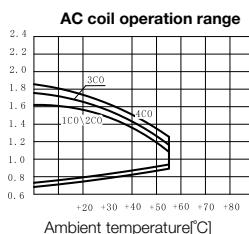
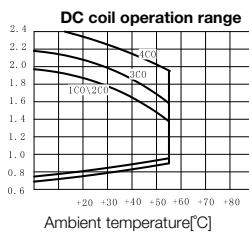


Circuit diagram
PIN top view
Dimensions are in mm

2CO



Output		
Max. switching voltage	250 V AC	
Continuous current	16 A @ 1CO / 10A @ 2CO	
Contact material	AgCdO	
Min. load voltage / current	12 V / 100 mA	
Contact resistance (initial)	< 50 mΩ	
Electrical endurance	> 10 × 10 ⁴ cycles (1,800 cycles / hour)	
Response / dropout delay	< 20 ms / < 20 ms	
Input		
Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage	
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage	
Max. voltage @ 25°C	110% of rated voltage	
Coil power consumption	1.2 VA / 0.9 W	
General		
Operation temperature	- 25 ... 55°C	
Storage temperature	- 25 ... 55°C	
Humidity	35 ... 85 %	
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts	2,000V AC / 1 min 1,000V AC / 1 min 2,00V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm	
Insulation IEC60664		
	Rated voltage	250 V
	Pollution degree	3
	Oversupply category	III
Vibration resistance	10–55Hz dual amplitude: 1.0mm	
Shock resistance	10G (half wave of sine pulse: 11ms)	
Approval	CE; TÜV; UL	
Weight	35 g	
Min. in package	20 pcs	
Dimensions		
Length x Width x Height	28 x 21.5 x 43 mm	



*For bases & other accessories please go to page 44

DRL Power Relay

DRL Power Relay 2 change over contacts, AC/DC coil

Type code	DRL		
Type code			
Type DRL			
Type of construction			
170	1 change over contact		
270	2 change over contacts		
Coil voltage			
012	12Vdc / 024	24Vdc	
048	48Vdc / 110	110Vdc	
220	220Vdc / 524	24Vac	
615	115Vac / 730	230Vac	
LED indicator			

Ordering information

Input	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Response / dropout voltage	9 V / 1.2 V	18 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	165 V / 22 V
Power consumption	0.9 W	0.9 W	0.9 W	0.9 W	0.9 W
Rated coil current	75 mA	36.9 mA	18.5 mA	10 mA	5.2 mA
Coil resistance	160Ω ±10%	650Ω ±10%	2,600Ω ±10%	11,000Ω ±10%	42,000Ω ±10%

12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DRL270012L	DRL270024L	DRL270048L	DRL270110L	DRL270220L
1133510000	1133520000	1133530000	1133540000	1133550000

Ordering information

2 change over contact 2CO	Type
	Order No.

DRL270012L	DRL270024L	DRL270048L	DRL270110L	DRL270220L
1133510000	1133520000	1133530000	1133540000	1133550000

Ordering information

Input	24 V AC	115 V AC	230 V AC
Rated voltage	24 V AC	115 V AC	230 V AC
Response / dropout voltage	19.2 V / 7.2 V	92 V / 34.5 V	184 V / 69 V
Power consumption	1.2 VA	1.2 VA	1.2 VA
Rated coil current (50 Hz)	54 mA	12.9 mA	6.8 mA
Coil resistance	160Ω ±10%	3,750Ω ±10%	13,000Ω ±10%

24 V AC	115 V AC	230 V AC
DRL270524L	DRL270615L	DRL270730L
1133870000	1133880000	1133890000

Ordering information

2 change over contact 2CO	Type
	Order No.

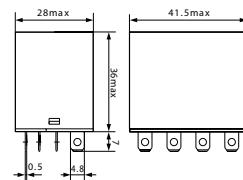
DRL270524L	DRL270615L	DRL270730L
1133870000	1133880000	1133890000

*For bases & other accessories please go to page 44

DRL Power Relay

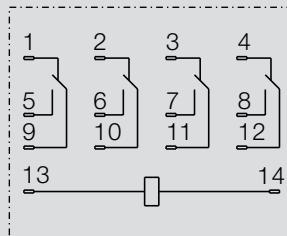
DRL Power Relay 4 change over contacts, AC/DC coil

- Arc shield
- High dielectric strength: 2,000 V
- Approvals with UL/CSA  TÜV 



Circuit diagram
PIN top view
Dimensions are in mm

4CO

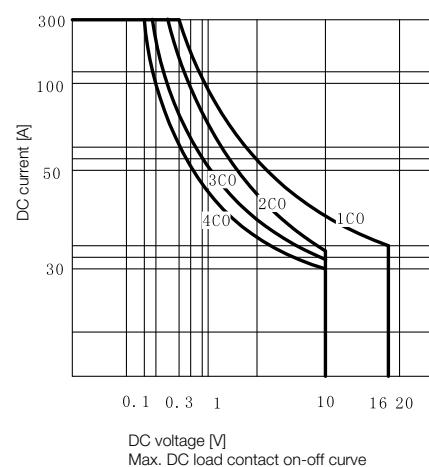
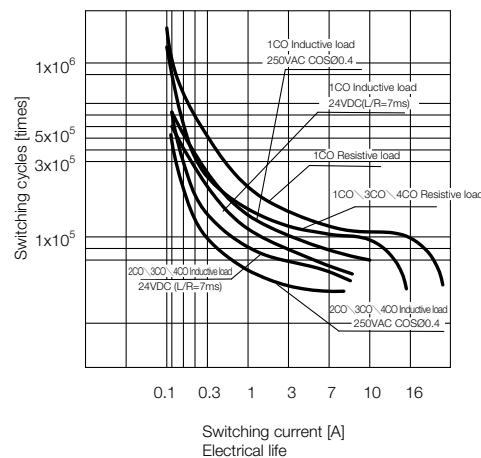
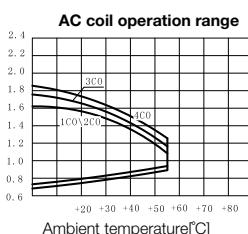
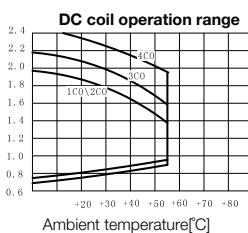


Output

Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgCdO
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles (1,800 cycles / hour)
Response / dropout delay	< 20 ms / < 20 ms
Input	
Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°	110% of rated voltage
Coil power consumption	3CO:2 VA / 1.4 W; 4CO:2.5 VA / 1.5 W

General

Operation temperature	- 25 ... 55°C	
Storage temperature	- 25 ... 55°C	
Humidity	35 ... 85 %	
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts	2,000V AC / 1 min 1,000V AC / 1 min 2,000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm	
Insulation IEC60664		
Rated voltage	250 V	
Pollution degree	3	
Overvoltage category	III	
Vibration resistance	10~55Hz dual amplitude: 1.0mm	
Shock resistance	10G (half wave of sine pulse: 11ms)	
Approval	CE; TÜV; UL	
Weight	3CO: 50g; 4CO: 65g	
Min. in package	10	
Dimensions		
Length x Width x Height	28 x 21.5 x 43 mm	



*For bases & other accessories please go to page 44

DRL Power Relay

DRL Power Relay 4 change over contacts, AC/DC coil

Type code

DRL

Type code

Type DRL

Type of construction

370 3 change over contact
570 4 change over contacts

Coil voltage

012 12Vdc / 024 24Vdc
048 48Vdc / 110 110Vdc
220 220Vdc / 524 24Vac
615 115Vac / 730 230Vac

LED indicator

Ordering information

Input

Rated voltage

12 V DC

12 V DC

Response / dropout voltage

9 V / 1.2 V

Power consumption

3CO 4CO

Rated coil current

1.4 W 1.5 W

Coil resistance

120 mA 125 mA

100Ω ±10% 96Ω ±10%

24 V DC

24 V DC

3CO 4CO

1.4 W 1.5 W

60 mA 66.7 mA

400Ω ±10% 360Ω ±10%

48 V DC

48 V DC

3CO 4CO

1.4 W 1.5 W

30 mA 31.2 mA

1,600Ω ±10% 1,540Ω ±10%

110 V DC

110 V DC

3CO 4CO

1.4 W 1.5 W

13.1 mA 16.2 mA

8,400Ω ±10% 6,800Ω ±10%

33,000Ω ±10% 29,000Ω ±10%

220 V DC

220 V DC

3CO 4CO

1.4 W 1.5 W

6.7 mA 7.6 mA

33,000Ω ±10% 29,000Ω ±10%

Ordering information

4 change over contact 4CO Type

Order No.

DRL570012L

1133620000

DRL570024L

1133630000

DRL570048L

1133640000

DRL570110L

1133650000

DRL570220L

1133660000

Ordering information

Input

Rated voltage

24 V AC

24 V AC

Response / dropout voltage

19.2 V / 7.2 V

Power consumption

3CO 4CO

Rated coil current (50 Hz)

2 VA 2.5 VA

Coil resistance

80 mA 93.5 mA

102Ω ±10% 80Ω ±10%

115 V AC

115 V AC

3CO 4CO

2 VA 2.5 VA

16 mA 25.5 mA

2,300Ω ±10% 1,680Ω ±10%

230 V AC

230 V AC

3CO 4CO

2 VA 2.5 VA

10 mA 13.1mA

8,600Ω ±10% 6,700Ω ±10%

Ordering information

4 change over contact 4CO Type

Order No.

DRL570524L

1133940000

DRL570615L

1133950000

DRL570730L

1133960000

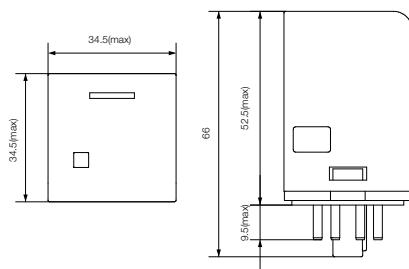
*For bases & other accessories please go to page 44

DRR Octal Power Relay

DRR Power Relay

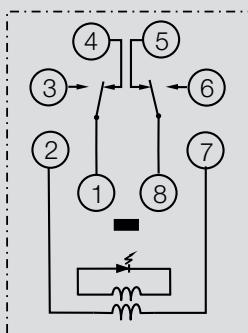
2 change over contacts, AC/DC coil

- 2500 VA switchover capacity
- 8-pin optical plug in DIN rail installation
- International approval CE TÜV CE Δ

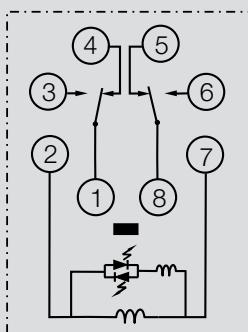


Circuit diagram
PIN top view
Dimensions are in mm

AC



DC



Output

Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgCdO
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles (1,800 cycles / hour)
Response / dropout delay	< 30 ms / < 20 ms

Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 15% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.7 VA / 1.5 W

General

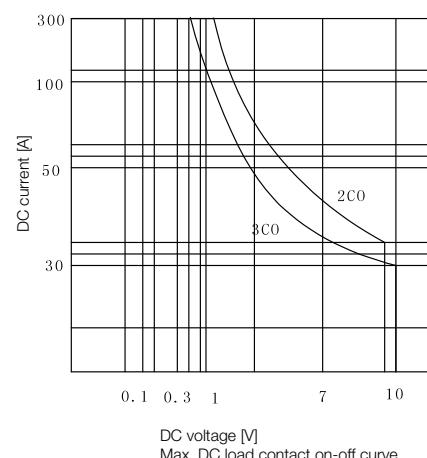
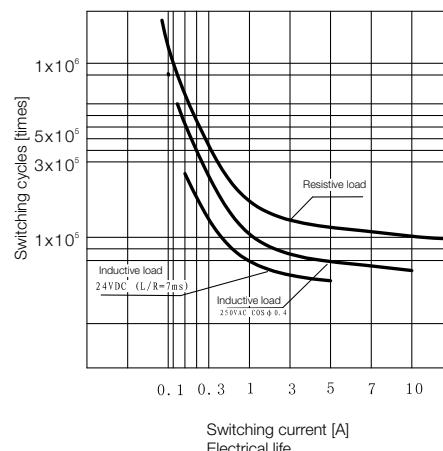
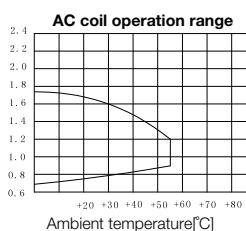
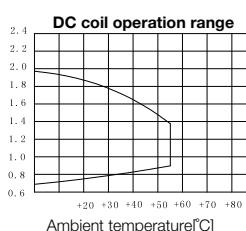
Operation temperature	- 25 ... 55°C	
Storage temperature	- 25 ... 55°C	
Humidity	5 ... 85 %	
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts	2,000V AC / 1 min 1,200V AC / 1 min 1,800V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm	
Insulation IEC60664		

Rated voltage	250 V
Pollution degree	3
Oversupply category	III

Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	75g
Min. in package	10

Dimensions

Length x Width x Height	34.5 x 34.5 x 66 mm
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*For bases & other accessories please go to page 44

DRR Octal Power Relay

DRR Power Relay **2 change over contacts, AC/DC coil**

Type code	DRR		
Type code			
Type DRR			
Type of construction			
270 2 change over contacts			
Coil voltage			
012 12Vdc / 024 24Vdc			
048 48Vdc / 110 110Vdc			
220 220Vdc / 524 24Vac			
615 115Vac / 730 230Vac			
LED indicator			

Ordering information

Input

	12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO	220 V DC 2CO
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Response / dropout voltage	9 V / 1.8 V	18 V / 3.6 V	36 V / 7.2 V	82.5 V / 16.5 V	165 V / 33 V
Power consumption	1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
Rated coil current	125 mA	55.8 mA	29.3 mA	14.9 mA	7.5 mA
Coil resistance	96Ω ±10%	430Ω ±10%	1640Ω ±10%	7360Ω ±10%	29500Ω ±10%

Ordering information

Type
Order No.

DRR270012L	DRR270024L	DRR270048L	DRR270110L	DRR270220L
1133360000	1133370000	1133380000	1133390000	1133400000

Ordering information

Input

	24 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Rated voltage	24 V AC	115 V AC	230 V AC
Response / dropout voltage	19.2 V / 7.2 V	92 V / 34.5 V	184 V / 69 V
Power consumption	2.7 VA	2.7 VA	2.7 VA
Rated coil current (50 Hz/60Hz)	130 mA/116 mA	29.8 mA/25.4 mA	14.9 mA/12.7 mA
Coil resistance	62.5Ω ±10%	1250Ω ±10%	6500Ω ±10%

Ordering information

Type
Order No.

DRR270524L	DRR270615L	DRR270730L
1133760000	1133780000	1133800000

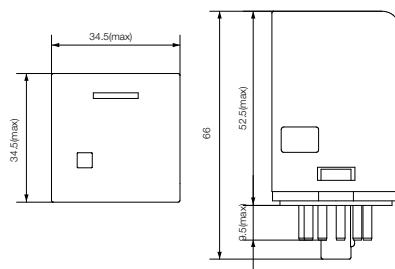
*For bases & other accessories please go to page 44

DRR Octal Power Relay

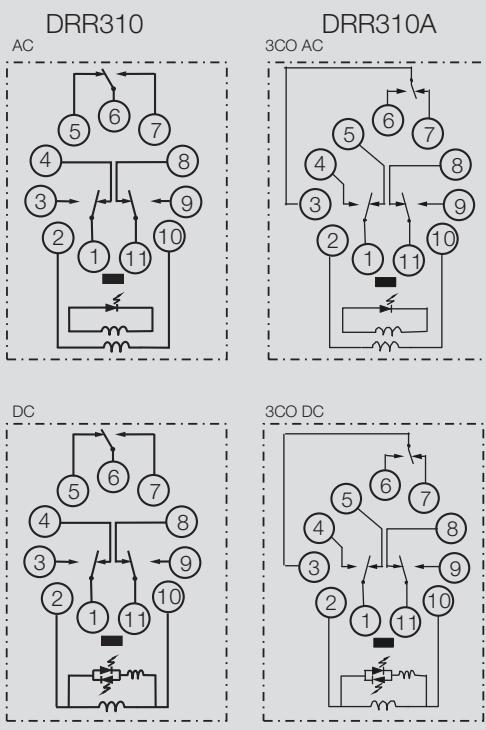
DRR Power Relay

3 change over contacts, AC/DC coil

- 2500 VA switchover capacity
- 11-pin plug in DIN rail installation
- International approval CE TÜV CE △



Circuit diagram
PIN top view
Dimensions are in mm



Output

Max. switching voltage	250 V AC
Continuous current	10A
Contact material	AgNi 90/10
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles (1,800 cycles / hour)
Response / dropout delay	< 30 ms / < 20 ms

Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 80% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 15% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.7 VA / 1.5 W

General

Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	5 ... 85 %

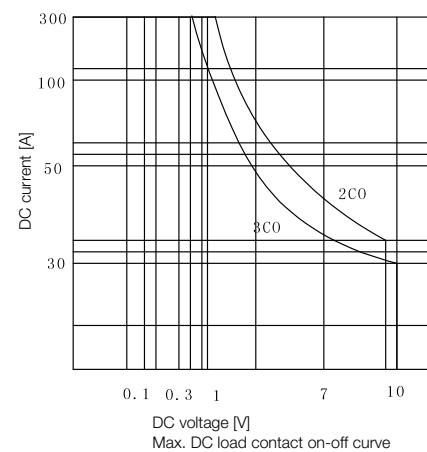
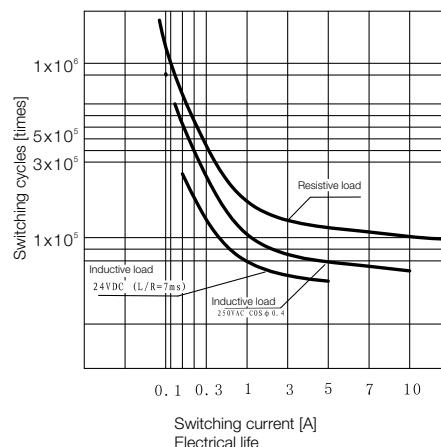
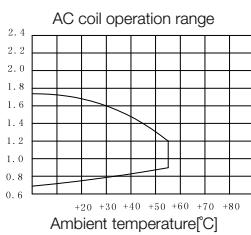
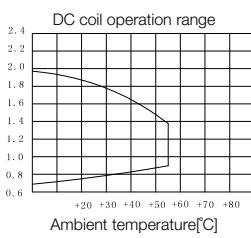
Dielectric strength	Coil-contact Between N.O. contacts	2,500V AC / 1 min
	Between adjacent contacts	2,500V AC / 1 min
	Clearance / creepage distance	1.5 mm / 4 mm

Insulation IEC60664

Rated voltage	250 V
Pollution degree	3
Oversupply category	III
Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	75g
Min. in package	10

Dimensions

Length x Width x Height	34.5 x 34.5 x 66 mm
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*For bases & other accessories please go to page 44

DRR Octal Power Relay

DRL Power Relay 3 change over contacts, AC/DC coil

Type code	DRR		
Type DRR			
Type of construction			
370 3 change over contacts			
Coil voltage			
012	12Vdc / 024	24Vdc	
048	48Vdc / 110	110Vdc	
220	220Vdc / 524	24Vac	
615	115Vac / 730	230Vac	
LED indicator			

Ordering information

Input

Rated voltage	12 V DC
Response / dropout voltage	9 V / 1.8 V
Power consumption	1.5 W
Rated coil current	125 mA
Coil resistance	96Ω ±10%

12 V DC 3CO

24 V DC 3CO

48 V DC 3CO

110 V DC 3CO

220 V DC 3CO

Ordering information

Type	DRR370012L
Order No.	1133410000
Type	DRR370012L-A
Order No.	7760056250

DRR370012L

DRR370024L

DRR370048L

DRR370110L

DRR370220L

Ordering information

Input

Rated voltage	24 V AC
Response / dropout voltage	19.2 V / 7.2 V
Power consumption	2.7 VA
Rated coil current (50 Hz/60Hz)	130 mA/116 mA
Coil resistance	62.5Ω ±10%

24 V AC 3CO

115 V AC 3CO

230 V AC 3CO

Ordering information

Input

Type	DRR370524L
Order No.	1133810000
Type	DRR370524L-A
Order No.	7760056255

DRR370524L

DRR370615L

DRR370730L

*For bases & other accessories please go to page 44

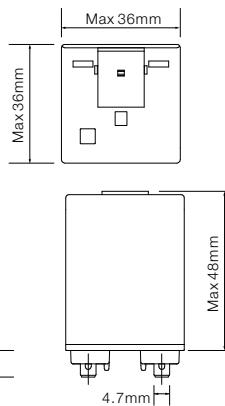
DRH DC Power Relay

DRH DC Relay

1 N.O. contact and 1 N.C. contact AC / DC coil

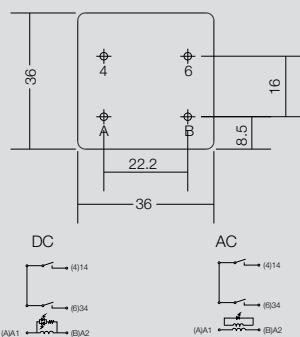
- Suitable to switch heavy DC loads

- Arc shield
- With LED and test lever
- Approval with CE, UL, TÜV

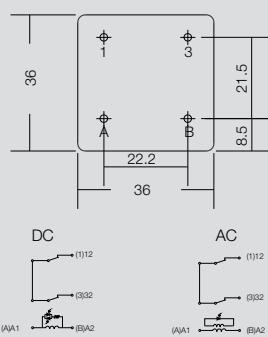


**Circuit diagram
PIN top view
Dimensions are in mm**

1NO



1NC



Output

Max. switching voltage	AC: 500 V; DC: 220 V
Continuous current	16 A@ 500 VAC; 10 A@ 220 VDC
Contact material	AgSnO ₂
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles
Response / dropout delay	< 20 ms / < 20 ms
Max. switching frequency at rated load	1 Hz

Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

General

Operation temperature	- 40°C ... 60°C
Storage temperature	- 40°C ... 60°C
Humidity	35 ... 85 %

Dielectric strength	Coil-contact
	Between N.O. contacts
	Between adjacent contacts

Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	

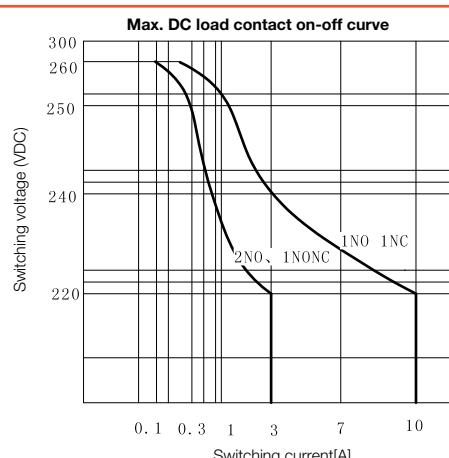
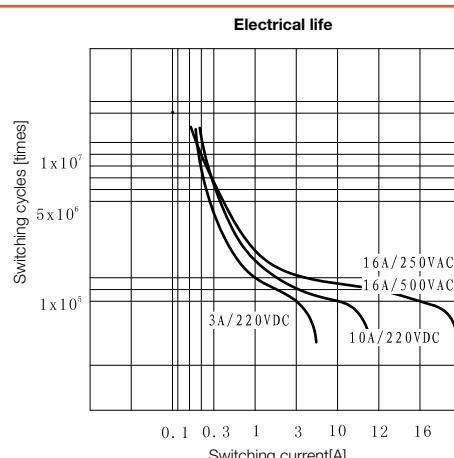
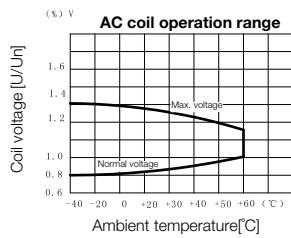
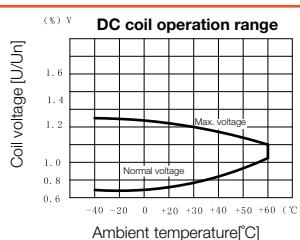
Rated voltage	400 V
Pollution degree	3
Overvoltage category	III

Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)

Approval	CE; TÜV; UL
Weight	48 g

Dimensions

Length x Width x Height	36 x 36 x 48 mm



*For bases & other accessories please go to page 44

DRH DC Power Relay

DRH DC Relay

1 N.O. contact and 1 N.C. contact AC / DC coil

Type code DRH

Type DRH

Type of construction

173 1NO

174 1NC

Coil voltage

012 12Vdc / 024 24Vdc

048 48Vdc / 110 110Vdc

220 220Vdc / 524 24Vac

548 48Vac / 615 115Vac

730 230Vac

With LED or test lever
LT

Ordering information

Input

Rated voltage	12 V DC
DC response / dropout voltage	9 V / 1.2 V
Power consumption	1.5 W
DC rated current	120 mA
Coil resistance	100Ω ±10%

12 V DC

24 V DC

48 V DC

110 V DC

220 V DC

12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
9 V / 1.2 V	18 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	165 V / 22 V
1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
120 mA	60 mA	30 mA	13.03 mA	6.7 mA
100Ω ±10%	400Ω ±10%	1,600Ω ±10%	8,400Ω ±10%	33,000Ω ±10%

Ordering information

1 N.O. contact	Type
	DRH173012LT
	1219840000
1 N.C. contact	Type
	DRH174012LT
	1219940000
With test lever locking clip	Type
	Test lever block for DRH/DRW
	7760056249

DRH173012LT

DRH173024LT

DRH173048LT

DRH173110LT

DRH173220LT

1 N.C. contact	Type
	DRH174024LT
	1219950000
With test lever locking clip	Type
	Test lever block for DRH/DRW
	7760056249

DRH174048LT

DRH174110LT

DRH174220LT

With test lever locking clip	Type
	Test lever block for DRH/DRW
	7760056249

Ordering information

Input

Rated voltage	24 V AC
AC response / dropout voltage	19.2V / 7.2 V
Power consumption	2.5 VA
AC rated current	101.7 mA
Coil resistance	100Ω ±10%

24 V AC2CO

48 V AC 2CO

115 V AC 2CO

230 V AC 2CO

24 V AC	48 V AC	115 V AC	230 V AC
19.2V / 7.2 V	38.4 V / 14.4 V	92 V / 34.5 V	184 V / 69 V
2.5 VA	2.5 VA	2.5 VA	2.5 VA
101.7 mA	51.04 mA	21.2 mA	10.61 mA
100Ω ±10%	350Ω ±10%	2,200Ω ±10%	8,000Ω ±10%

Ordering information

1 N.O. contact	Type
	DRH173524LT
	1219890000
1 N.C. contact	Type
	DRH174012LT
	1219990000
With test lever locking clip	Type
	Test lever block for DRH/DRW
	7760056249

DRH173524LT

DRH173548LT

DRH173615LT

DRH173730LT

1 N.C. contact	Type
	DRH174024LT
	1220010000
With test lever locking clip	Type
	Test lever block for DRH/DRW
	7760056249

DRH174048LT

DRH174080LT

DRH174110LT

1 N.C. contact	Type
	DRH174080LT
	1220020000
With test lever locking clip	Type
	Test lever block for DRH/DRW
	7760056249

With test lever locking clip	Type
	Test lever block for DRH/DRW
	7760056249

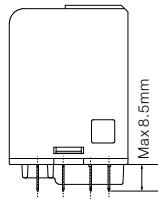
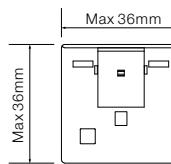
*For bases & other accessories please go to page 44

DRH DC Power Relay

DRH DC Relay

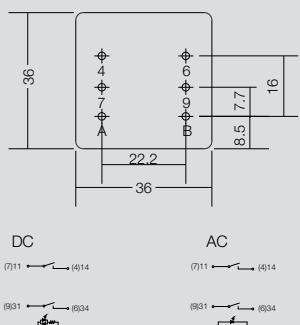
2 N.O. contact and 1 N.C. contact AC / DC coil

- Suitable to switch heavy DC loads
- Arc shield
- With LED and test lever
- Approval with CE, UL, TÜV

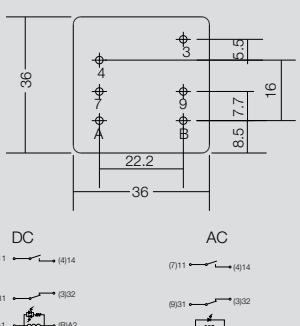


Circuit diagram
PIN top view
Dimensions are in mm

2NO



1NO/1NC



Output

Max. switching voltage	AC: 250 V; DC: 220 V
Continuous current	2NO 16 A@ 250 VAC; 3 A@ 220 VDC 1NO/1NC 16 A@ 250 VAC; 5 A@ 220 VDC
Contact material	AgSnO ₂
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles
Response / dropout delay	< 20 ms / < 20 ms
Max. switching frequency at rated load	1 Hz

Input

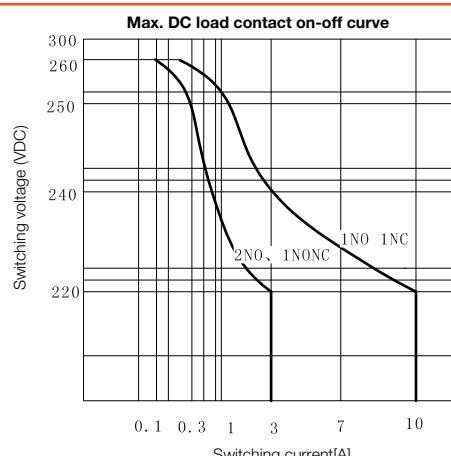
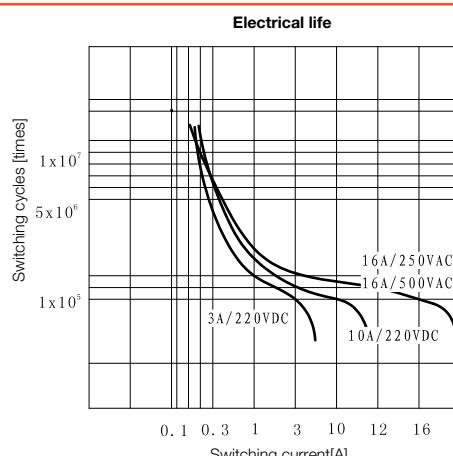
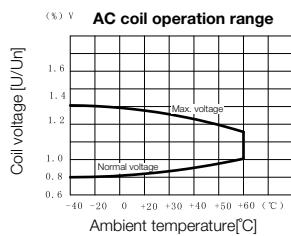
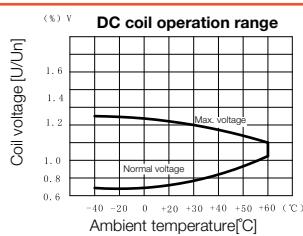
Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

General

Operation temperature	- 40 ... 60°C
Storage temperature	- 40 ... 60°C
Humidity	35 ... 85 %
Electrical strength	Coil-contact Between N.O. contacts Between adjacent contacts
	4,000V AC / 1 min 2,500V AC / 1 min 4,000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	
	Rated voltage Pollution degree Overvoltage category
	400 V 3 III
Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV; UL
Weight	48 g

Dimensions

Length x Width x Height	36 x 36 x 48 mm
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*For bases & other accessories please go to page 44

DRH DC Power Relay

DRH DC Relay 2 N.O. contact and 1 N.C. contact AC / DC coil

Type code	DRH		
Type DRH			
Type of construction			
275	1NO/1NC		
276	2NO		
Coil voltage			
012	12Vdc / 024	24Vdc	
048	48Vdc / 110	110Vdc	
220	220Vdc / 524	24Vac	
548	48Vac / 615	115Vac	
730	230Vac		
With LED or test lever			
LT			

Ordering information

Input		12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Rated voltage		12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage		9 V / 1.2 V	18 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	165 V / 22 V
Power consumption		1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
DC rated current		120 mA	60 mA	30 mA	13.03 mA	6.7 mA
Coil resistance		100Ω ±10%	400Ω ±10%	1,600Ω ±10%	8,400Ω ±10%	33,000Ω ±10%

Ordering information

1 N.O. contact/ 1 N.C. contact	Type	DRH275012LT	DRH275024LT	DRH275048LT	DRH275110LT	DRH275220LT
	Order No.	1220040000	1220050000	1220060000	1220070000	1220080000
2 N.O. contact	Type	DRH276012LT	DRH276024LT	DRH276048LT	DRH276110LT	DRH276220LT
	Order No.	1220140000	1220150000	1220170000	1220180000	1220190000
With test lever locking clip	Type	Test lever block for DRH/DRW				
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

Ordering information

Input		24 V AC2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Rated voltage		24 V AC	48 V AC	115 V AC	230 V AC
DC response / dropout voltage		19.2 V / 7.2 V	38.4 V / 14.4 V	92 V / 34.5 V	184 V / 69 V
Power consumption		2.5 VA	2.5 VA	2.5 VA	2.5 VA
DC rated current		101.7 mA	51.04 mA	21.2 mA	10.61 mA
Coil resistance		100Ω ±10%	350Ω ±10%	2,200Ω ±10%	8,000Ω ±10%

Ordering information

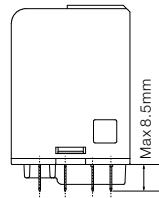
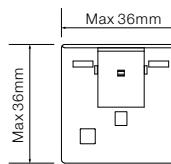
1 N.O. contact/ 1 N.C. contact	Type	DRH275524LT	DRH275548LT	DRH275615LT	DRH275730LT
	Order No.	1220090000	1220110000	1220120000	1220130000
2 N.O. contact	Type	DRH276524LT	DRH276548LT	DRH276615LT	DRH276730LT
	Order No.	1220200000	1220210000	1220220000	1220230000
With test lever locking clip	Type	Test lever block for DRH/DRW			
	Order No.	7760056249	7760056249	7760056249	7760056249

*For bases & other accessories please go to page 44

DRW AC Power Relay

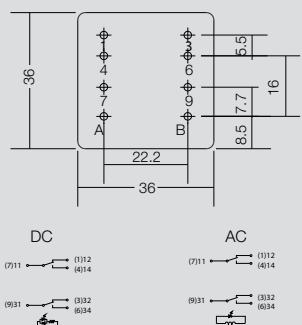
DRW Power Relay 2CO / 3CO contacts AC / DC coil

- Suitable to switch high voltage AC loads
- With LED and test lever
- Approval with CE, UL, TÜV

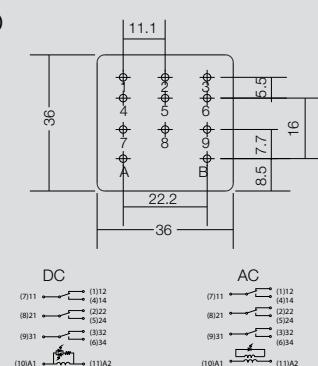


Circuit diagram PIN top view Dimensions are in mm

2CO



3CO



Output

Max. switching voltage	400 V AC
Continuous current	16 A@ 400 VAC; 16 A@ 30 VDC
Contact material	AgCdO
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles
Response / dropout delay	< 20 ms / < 10 ms
Max. switching frequency at rated load	1 Hz

Input

Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage

Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

General

Operation temperature	2CO: - 40 ... 60°C; 3CO: - 40 ... 50°C;
Storage temperature	- 40 ... 60°C

Humidity	35 ... 85 %
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Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts	4,000V AC / 1 min 2,500V AC / 1 min 4,000V AC / 1 min
Clearance / creepage distance		3.5 mm / 6 mm

Insulation IEC60664	
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Rated voltage	400 V
Pollution degree	3

Oversupply category	III
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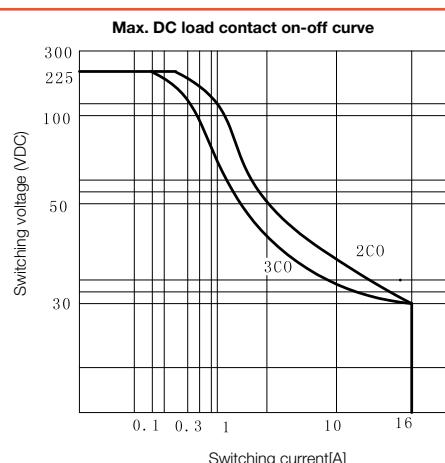
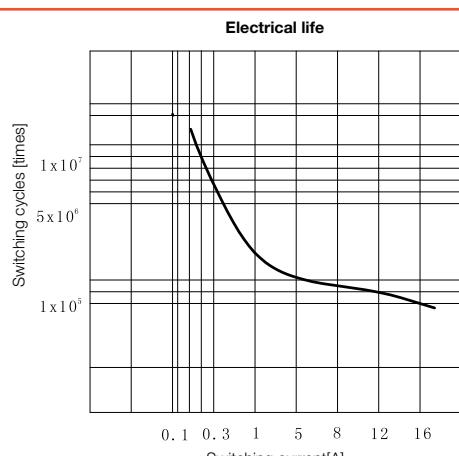
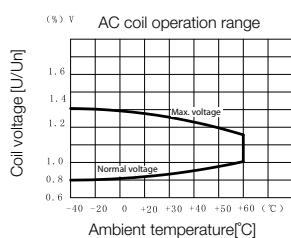
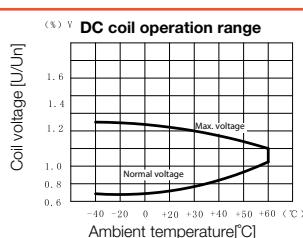
Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)

Approval	CE; TÜV; UL
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Weight	51 g
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Dimensions

Length x Width x Height	36 x 36 x 48 mm
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*For bases & other accessories please go to page 44

DRW AC Power Relay

DRW power relay
2CO / 3CO contacts
AC / DC coil

Type code DRW

Type DRW

Type of construction

270 2CO

174 1NC

Coil voltage

012 12Vdc / 024 24Vdc

048 48Vdc / 110 110Vdc

220 220Vdc / 524 24Vac

548 48Vac / 615 115Vac

730 230Vac / 900 400Vac

With LED or test lever

LT

Ordering information

	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
Input					
Rated voltage	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage	9 V / 1.2 V	8 V / 2.4 V	36 V / 4.8 V	82.5 V / 11 V	115 V / 22 V
Power consumption	1.5 W	1.5 W	1.5 W	1.5 W	1.5 W
DC rated current	120 mA	60 mA	30 mA	13.03 mA	6.7 mA
Coil resistance	100Ω ±10%	400Ω ±10%	1,600Ω ±10%	8,400Ω ±10%	33,000Ω ±10%

Ordering information

2CO contact	Type	DRW270012LT	DRW270024LT	DRW270048LT	DRW270110LT	DRW270220LT
	Order No.	1219730000	1219740000	1219750000	1219760000	1219770000
3CO contact	Type	DRW370012LT	DRW370024LT	DRW370048LT	DRW370110LT	DRW370220LT
	Order No.	1219780000	1219790000	1219810000	1219820000	1219830000
With test lever locking clip	Type	Test lever block for DRH/DRW				
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

Ordering information

	24V AC	48V AC	115V AC	230V AC	400V AC
Input					
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	400 V AC
AC response / dropout voltage	19.2V / 7.2 V	38.4 V / 14.4 V	92 V / 34.5 V	184 V / 69 V	320 V / 120 V
Power consumption	2.5 VA	2.5 VA	2.5 VA	2.5 VA	2.5 VA
AC rated current	101.7 mA	51.04 mA	21.2 mA	10.61 mA	6.1 mA
Coil resistance	100Ω ±10%	350Ω ±10%	2,200Ω ±10%	8,000Ω ±10%	30,000Ω ±10%

Ordering information

2CO contact	Type	DRW270524LT	DRW270548LT	DRW270615LT	DRW2701730LT	DRW270900LT
	Order No.	1219350000	1219360000	1219370000	1219380000	1219390000
3CO contact	Type	DRW370524LT	DRW370548LT	DRW370615LT	DRW370730LT	DRW370900LT
	Order No.	1219410000	1219420000	1219430000	1219440000	1219450000
With test lever locking clip	Type	Test lever block for DRH/DRW				
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

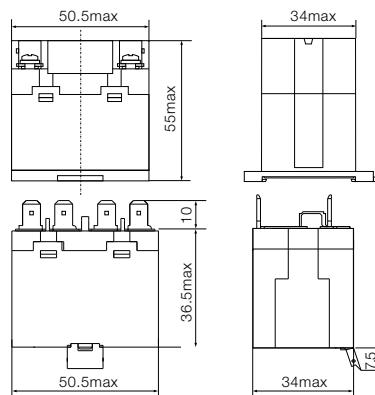
*For bases & other accessories please go to page 44

PWR High Power Relay

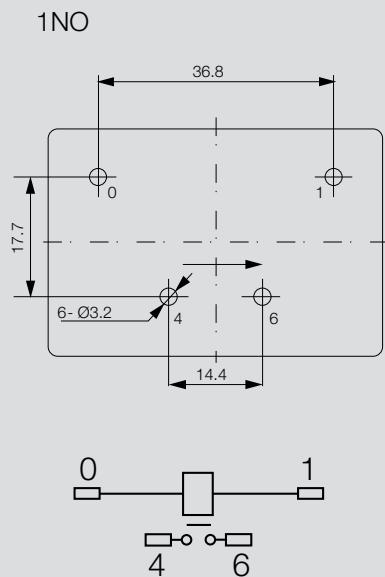
PWR high power relay

1 N.O. contact AC / DC coil

- Max. load current: 30 A
- Various mounting methods available
- Approvals with CE, UL, TÜV



Circuit diagram PIN top view Dimensions are in mm



Output

Max. switching voltage	277 V AC
Continuous current	30 A
Contact material	Ag alloy
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles
Response / dropout delay	< 20 ms / < 10 ms

Input

Response voltage @ 25°C	AC: ≤ 75% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 15% of rated voltage DC: ≥ 15% of rated voltage

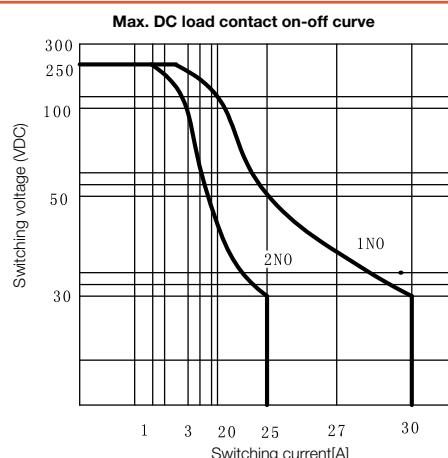
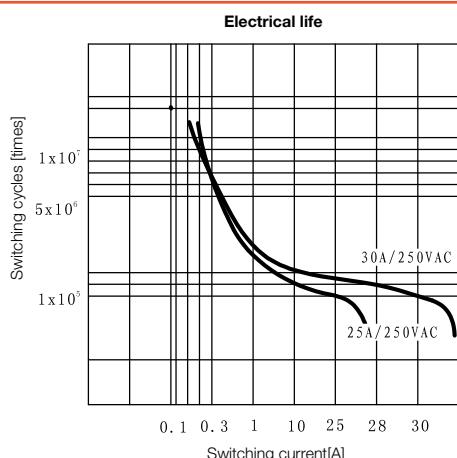
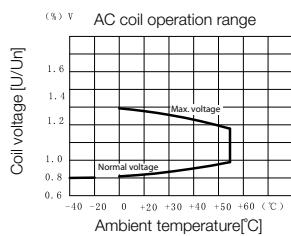
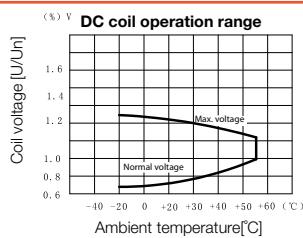
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.9 W

General

Operation temperature	- 25 ... 55°C	
Storage temperature	- 25 ... 55°C	
Humidity	35 ... 85 %	
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts	2,000V AC / 1 min 2,000V AC / 1 min 4,000V AC / 1 min
Clearance / creepage distance	3.5 mm / 6 mm	
Insulation IEC60664	Rated voltage Pollution degree Overvoltage category	250 V 3 III
Vibration resistance	10~55Hz dual amplitude: 1.0mm	
Shock resistance	10G (half wave of sine pulse: 11ms)	
Approval	CE; TÜV	
Weight	Push-in connection/PCB welding: 90g; DIN-rail mounting: 120g	

Dimensions

Length x Width x Height	34 x 50.5 x 36.5 mm
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*For bases & other accessories please go to page 44

PWR High Power Relay

PWR high power relay
1 N.O. contact
AC / DC coil

Type code	PWR		
Type PWR			
Type of construction and mounting			
153 1N.O. contact, push-in connection			
173 1N.O. contact, DIN-rail mounting			
Coil voltage			
006 6Vdc / 012 12Vdc			
024 24Vdc / 048 48Vdc			
110 110Vdc / 220 220Vdc			
524 24Vac / 548 48Vac			
615 115Vac / 730 230Vac			
880 380Vac			
L with LED			
T with test lever			
P PCB welding			

Ordering information	6 V DC 1NO	12 V DC 1NO	24 V DC 1NO	48 V DC 1NO	110 V DC 1NO	220 V DC 1NO
Input						
Rated voltage	6 V DC	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage	4.5 V / 0.9 V	9 V / 1.8 V	18 V / 3.6 V	36 V / 7.2 V	82.5 V / 16.5 V	165 V / 33 V
Power consumption	1.9 W	1.9 W	1.9 W	1.9 W	1.9 W	1.9 W
DC rated current	317 mA	160 mA	79.2 mA	39.3 mA	17.3 mA	8.6 mA
Coil resistance	18.9Ω ±10%	75Ω ±10%	303Ω ±10%	1,220Ω ±10%	6,360Ω ±10%	25,474Ω ±10%

Ordering information	6 V DC 1NO	12 V DC 1NO	24 V DC 1NO	48 V DC 1NO	110 V DC 1NO	220 V DC 1NO
plug-in, need socket	Type	PWR153006LT	PWR153012LT	PWR153024LT	PWR153048LT	PWR153110LT
	Order No.	1219590000	1219610000	1219620000	1219630000	1219640000
Din rail installation, no need socket	Type	PWR173006L	PWR173012L	PWR173024L	PWR173048L	PWR173110L
	Order No.	1219460000	1219470000	1219480000	1219490000	1219510000
						1219520000

*Note: PCB Soldering connection available.

Ordering information	24 V AC 1NO	48 V AC 1NO	115 V AC 1NO	230 V AC 1NO	380 V AC 1NO
Input					
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	115 V AC
AC response / dropout voltage	18V / 3.6 V	36 V / 7.2 V	86.3 V / 17.3 V	172.5 V / 34.5 V	285 V / 57 V
Power consumption	2.5 VA	2.5 VA	2.5 VA	2.5 VA	2.5 VA
AC rated current	87.3 mA	43.6 mA	22.1 mA	11.0 mA	6.1 mA
Coil resistance	275Ω ±10%	1,100Ω ±10%	5,200Ω ±10%	21,000Ω ±10%	62,650Ω ±10%

Ordering information	24 V AC 1NO	48 V AC 1NO	115 V AC 1NO	230 V AC 1NO	380 V AC 1NO
Input					
Din-rail mounting without socket	Type	PWR153524LT	PWR153548LT	PWR153615LT	PWR153730LT
	Order No.	1219230000	1219240000	1219250000	1219260000
Push-in connection with socket	Type	PWR173524L	PWR173548L	PWR173615L	PWR173730L
	Order No.	1219090000	1219120000	1219130000	1219140000
					1219150000

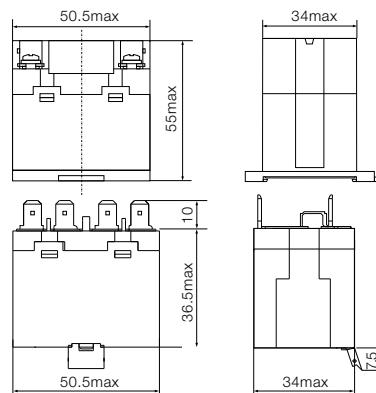
*Note: PCB Soldering connection available.

PWR High Power Relay

PWR high power relay

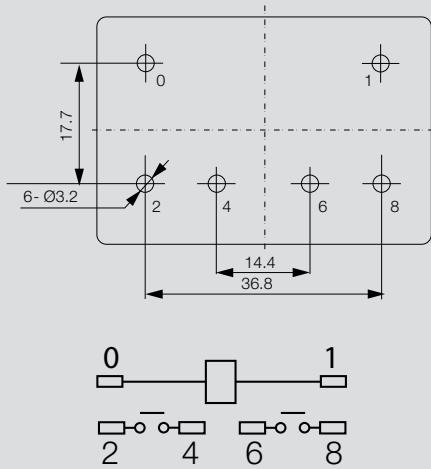
2 N.O. contact AC / DC coil

- Max. load current: 25 A
- Various mounting methods available
- Approvals with CE, UL, TÜV



Circuit diagram
PIN top view
Dimensions are in mm

2NO



Output

Max. switching voltage	277 V AC
Continuous current	25 A
Contact material	Ag alloy
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 ⁴ cycles
Response / dropout delay	< 30 ms / < 30 ms

Input

Response voltage @ 25°C	AC: ≤ 75% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 15% of rated voltage DC: ≥ 15% of rated voltage
Max. voltage @ 25°C	110% of rated voltage

Coil power consumption

2.5 VA / 1.9 W

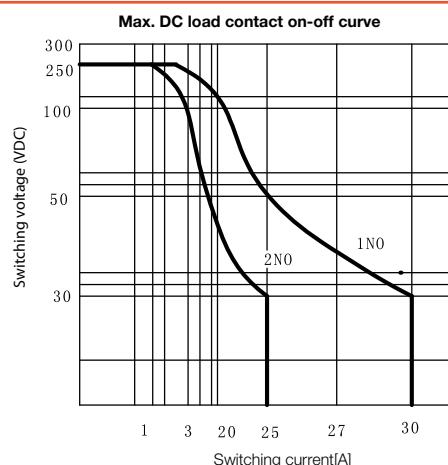
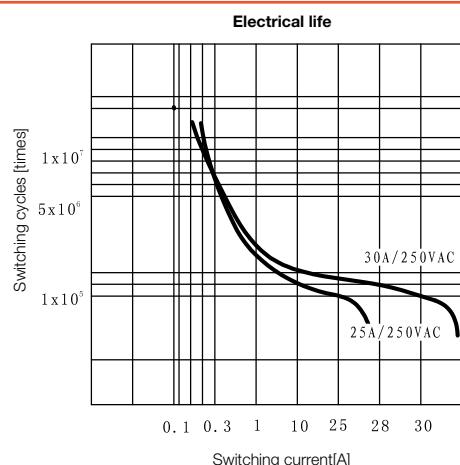
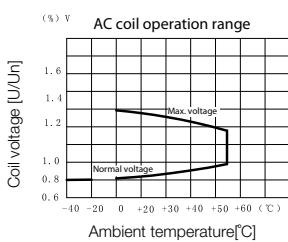
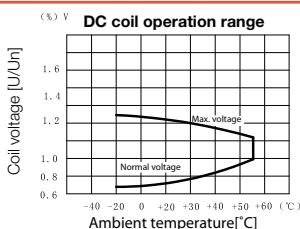
General

Operation temperature	-25 ... 55°C
Storage temperature	-25 ... 55°C
Humidity	35 ... 85 %
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts
	2,000V AC / 1 min 2,000V AC / 1 min 4,000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	
	Rated voltage Pollution degree Overvoltage category
	250 V 3 III
Vibration resistance	10~55Hz dual amplitude: 1.0mm
Shock resistance	10G (half wave of sine pulse: 11ms)
Approval	CE; TÜV
Weight	Push-in connection/PCB welding: 90g; DIN-rail mounting: 120g

Dimensions

Length x Width x Height

34 x 50.5 x 36.5 mm



*For bases & other accessories please go to page 44

PWR High Power Relay

PWR high power relay 2 N.O. contact AC / DC coil

Type code PWR

Type PWR

Type of construction and mounting
256 2N.O. contact, push-in connection
276 2N.O. contact, DIN-rail mounting

Coil voltage

006 6Vdc / 012 12Vdc
024 24Vdc / 048 48Vdc
110 110Vdc / 220 220Vdc
524 24Vac / 548 48Vac
615 115Vac / 730 230Vac
880 380Vac

L with LED
T with test lever
P PCB welding

Ordering information		6 V DC 2NO	12 V DC 2NO	24 V DC 2NO	48 V DC 2NO	110 V DC 2NO	220 V DC 2NO
Input							
Rated voltage		6 V DC	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
DC response / dropout voltage		4.5 V / 0.9 V	9 V / 1.8 V	18 V / 3.6 V	36 V / 7.2 V	82.5 V / 16.5 V	165 V / 33 V
Power consumption		1.9 W	1.9 W	1.9 W	1.9 W	1.9 W	1.9 W
DC rated current		317 mA	160 mA	79.2 mA	39.3 mA	17.3 mA	8.6 mA
Coil resistance		18.9Ω ±10%	75Ω ±10%	303Ω ±10%	1,220Ω ±10%	6,360Ω ±10%	25,474Ω ±10%

Ordering information		6 V DC 2NO	12 V DC 2NO	24 V DC 2NO	48 V DC 2NO	110 V DC 2NO	220 V DC 2NO
plug-in , need socket	Type	PWR256006LT	PWR256012LT	PWR256024LT	PWR256048LT	PWR256110LT	PWR256220LT
	Order No.	1219660000	1219670000	1219680000	1219690000	1219710000	1219720000
Din rail installation,no need socket	Type	PWR276006L	PWR276012L	PWR276024L	PWR276048L	PWR276110L	PWR276220L
	Order No.	1219530000	1219540000	1219550000	1219560000	1219570000	1219580000

*Note: PCB Soldering connection available.

Ordering information		24 V AC 2NO	48 V AC 2NO	115 V AC 2NO	230 V AC 2NO	380 V AC 2NO
Input						
Rated voltage		24 V AC	48 V AC	115 V AC	230 V AC	115 V AC
AC response / dropout voltage		18V / 3.6 V	36 V / 7.2 V	86.3 V / 17.3 V	172.5 V / 34.5 V	285 V / 57 V
Power consumption		2.5 VA	2.5 VA	2.5 VA	2.5 VA	2.5 VA
AC rated current		87.3 mA	43.6 mA	22.1 mA	11.0 mA	6.1 mA
Coil resistance		275Ω ±10%	1,100Ω ±10%	5,200Ω ±10%	21,000Ω ±10%	62,650Ω ±10%

Ordering information		24 V AC 2NO	48 V AC 2NO	115 V AC 2NO	230 V AC 2NO	380 V AC 2NO
plug-in , need socket	Type	PWR256524LT	PWR256548LT	PWR256615LT	PWR256730LT	PWR256880LT
	Order No.	1219280000	1219290000	1219320000	1219330000	1219340000
Din rail installation,no need socket	Type	PWR276524L	PWR276548L	PWR276615L	PWR276730L	PWR276880L
	Order No.	1219160000	1219170000	1219180000	1219190000	1219220000

*Note: PCB Soldering connection available.

*For bases & other accessories please go to page 44

Relay Base

Separated base (for RCM and DRM relays)



Ordering information

Technical data

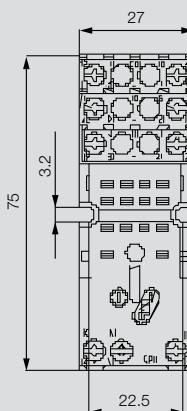
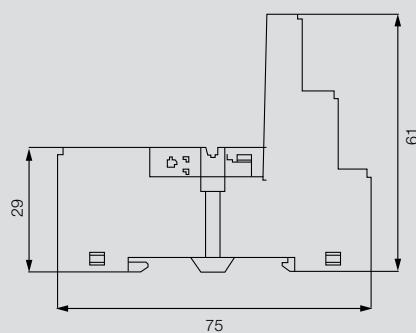
Rated current	4 x 6 A, 3 x 10 A, 2 x 12 A
Rated voltage	300 Vac
Coil/contact electrical strength	>4000 Vrms
Insulation (VDE 0110b)	C / 250 Vac
Ambient temperature	-40...+70°C
Protection level	IP 20
Electric shock prevention category	VBG 4
Wire cross section / with terminal	2 x 2.5 mm ² / 2 x 1.5 mm ²
Wiring torque / max.	0.5 Nm / 0.8 Nm
Packing unit	10 pcs.

Base connected by screws, DIN-rail mounting

Description	Type	Order No.
Base connected by screws, DIN-rail mounting, 2CO	SCM 2CO	8690880000
	SCM ECO 2CO*	7760056007
Base connected by screws, DIN-rail mounting, 4CO	SCM 4CO	8690900000
	SCM ECO 4CO*	7760056008

* SRC ECO base already have plastic release clip and mark

Dimensions are in mm



Relay clips (plastic and metal)

Ordering information

For SCM 2CO, SCM 3CO and SCM 4CO

Description	Type	Order No.
Plastic clip for RCM of 29 mm	SCM CLIP P	8691110000
Metal clip for RCM of 29 mm	SCM CLIP M	7760056039
Accessories	Mark, for SRC ECO relay base	7760056179

Hybrid base (for RCM and DRM relay)



Ordering information

Technical data

Rated current	2CO/4CO	12A/10A
Rated voltage		300Vac
Dielectric withstand voltage / coil-contacts		2500Vrms
Dielectric withstand voltage / between contacts		2500Vrms
Wiring torque / max.		0.5Nm/0.8Nm
Wire		0.5-2.5 mm ²
Environments		-40°C...+70°C
Weight	2CO/4CO	35g/43g
Min. in package		20pcs

Description

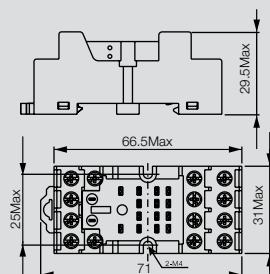
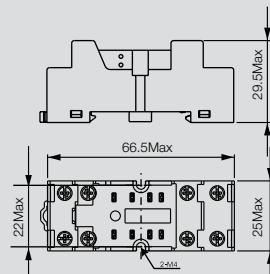
DIN-Rail mounting base	2CO	FS 2CO*	7760056106
DIN-Rail mounting base	4CO	FS 4CO	7760056107

Accessories

Mark, for SRC ECO relay base	Mark FS	7760056180
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Note: FS base already have marks.

Dimensions are in mm



Relay Base

Economic base (for RCM and DRM relay)



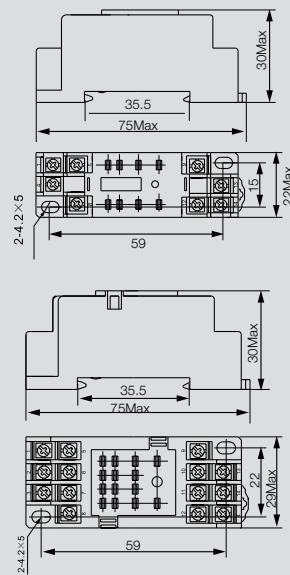
Ordering information

Technical data

Rated current	2CO/4CO	10A/5A
Rated voltage		300V
Dielectric withstand voltage / coil-contacts		2000V
Dielectric withstand voltage / between contacts		2000V
Wiring torque / max.		0.5Nm/0.8Nm
Wire		0.5-2.5mm ²
Environments		-40°C...+70°C
Weight	2CO/4CO	43g/56g
Min. in package		20pcs
Description	Type	Order No.
DIN-Rail mounting base with finger protection	2CO	FS 2CO F ECO
DIN-Rail mounting base with finger protection	4CO	FS 4CO F ECO

Note: functional module is not suitable for this type of base

Dimensions are in mm



Metal clip (recommended for vibration applications)

Type	Order No.
DRM clip M (for DRM relay)	7760056108
Metal clip set (for DRM relay, only with FS ECO base)	7760056128



DRM clip M



Functional modules

Type	Order No.
RIM 1 6/230VDC	7760056169
RIM 3 110/230VAC	7760056014
RIM 3 110/230VAC LED	7760056045
Green LED 6...24 Vdc with suppressor diode	7760056015
Green LED 24...60 Vdc with suppressor diode	7760056016
Green LED 110...230 Vdc with suppressor diode	7760056017
Green LED 6...24 Vdc / Vac	7940018457
Green LED 24...60 Vdc / Vac	7760056018
Green LED 110...230 Vdc / Vac	7940018455

* For SCM/SRC base only, not for FS base.

DRL relay base SLD



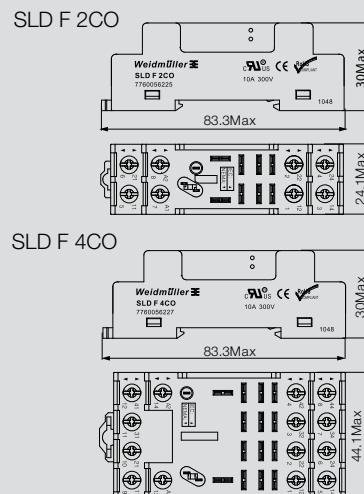
Ordering information

Technical data	Type	Order No.
Rated voltage	300 V	
Rated current	10 A	
Coil/contact electrical strength	2,000 V	
Electrical strength between contacts	2,500 V	
Operation temperature	-40 ... 85°C	
Pollution class	2	
Over voltage class	III	
Wiring torque	1.0 Nm	
Wire cross section	0.5 ... 2.5 mm ²	
Protection level (IEC 61810)	IP20	
Approvals	CE	
Description	Type	Order No.
DIN-rail mounted base, 2CO	SLD F 2CO	7760056225
DIN-rail mounted base, 4CO	SLD F 4CO	7760056227

Ordering information

Technical data	Type	Order No.
Metal clips SLD F 2CO	Metal clip	7760056108
Metal clips SLD F 4CO	SLD clip 4CO	7760056235

Dimensions are in mm



Relay Base

DRR/RRD relay base



Ordering information

Technical data

Rated voltage	300 V	
Rated current	12 A	
Coil/contact electrical strength	4,000 V	
Electrical strength between contacts	2,500 V	
Operating temperature	-40 ... 85°C	
Pollution class	2	
Over voltage class	III	
Wiring torque	1.0 Nm	
Wire cross section	0.5 ... 2.5 mm ²	
Protection level (IEC 61810)	IP20	
Weight	50 g	
Approvals	CE	
Description	Type	Order No.
DIN-rail mounting rockets, 8-pin	SRD ECO 2CO	1132810000
DIN-rail mounting rockets, 11-pin	SRD ECO 3CO	1132820000
Metal clip for DRR relay base	DRR BASE METAL CLIP	1134160000
Metal clip for RRD relay base	SRD-I CLIP M	8869370000
RC combined protection 6 ... 230 Vac	RIM 5 6/230Vac	1174670000
Protective diode 6 ... 230 Vdc	RIM 5 6/230Vdc	1174650000



DRH relay base



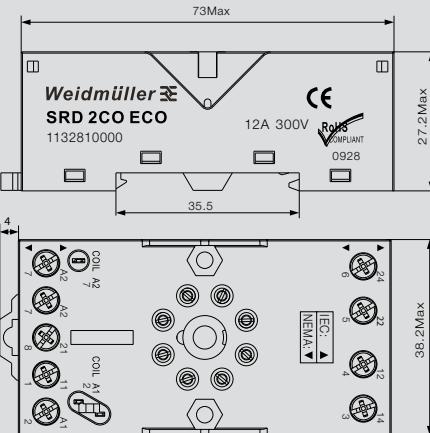
Ordering information

Technical data

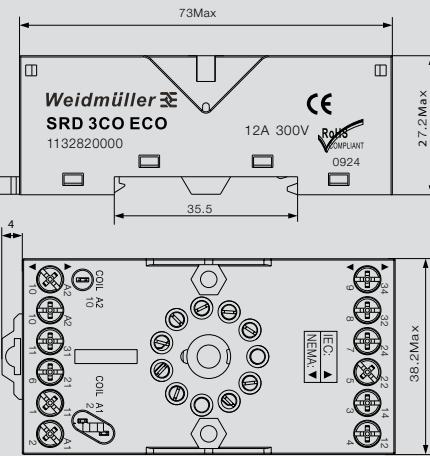
Rated voltage	400 V AC	
Rated current	16 A	
Coil/contact electrical strength	4,000 V	
Electrical strength between contacts	4,000 V	
Operation temperature	-40 ... 60°C	
Pollution class	2	
Over voltage class	II	
Wiring torque/max.	1.2 Nm	
Wire cross section	0.5 ... 4 mm ²	
Protection level (IEC 61810)	IP20	
Weight	64g	
Approvals	CE, UL	
Description	Type	Order No.
Relay base, for DRH and DRW relays	SPW ECO 3CO	1220250000
Metal clip	Metal clip DRH/DRW	1220260000

Dimensions are in mm

SRD ECO 2CO

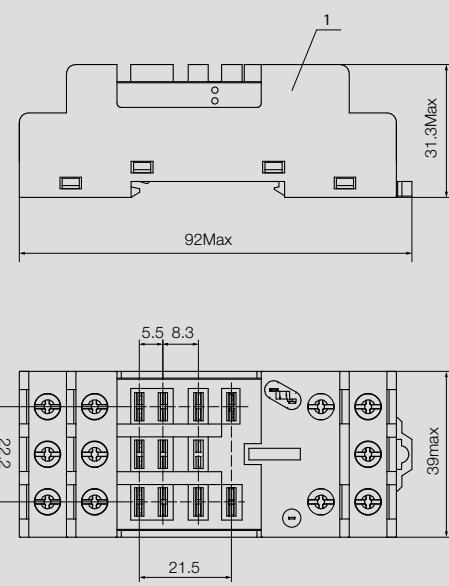


SRD ECO 3CO



Dimensions are in mm

SPW ECO 3CO



Relay Base

PWR relay base



Product performance

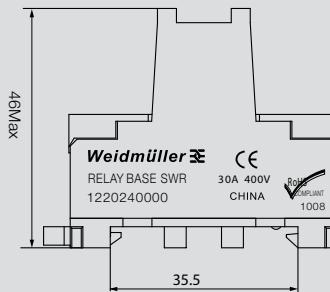
Technical data

Rated current	30 A
Rated voltage	400 V AC
Medium withstand voltage	2500 V/S
Screw torque	1.0Nm
External wire	20-10/0.5-5.5AWG/mm ²
Environments	-40~+85°C
Weight	56g

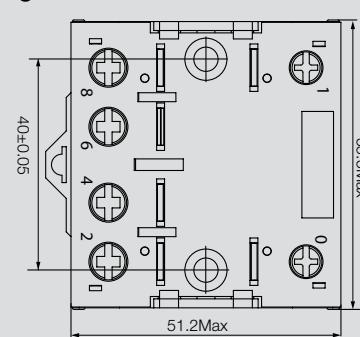
Assembled relays and accessories

Product type	Relay type	Order No.
PWR relay base	SWR	1220240000

Shape



Mounting



Relay Base

RCM/DRM base with PCB pins



Ordering information

Technical data

Rated current

Rated voltage

Ambient temperature

Approvals

Description

Base with PCB pins, 2CO

Base with PCB pins, 3CO

Base with PCB pins, 4CO

Metal clip DRM PCB

10 A	
250 VAC	
- 40 °C ... +80 °C	
Type	Order No.
SCM 08 PCB	7760056112
SCM 11 PCB	1132790000
SCM 14 PCB	7760056113
metal clip DRM PCB	1209690000

RRD base with PCB pins



Ordering information

Technical data

Rated current

Rated voltage

Ambient temperature

Description

Base with PCB pins, 8-pin

Base with PCB pins, 11-pin

10 A	
250 VAC	
- 40 °C ... +70 °C	
Type	Order No.
SRD 2CO PCB	8697750000
SRD 3CO PCB	8697730000

DRH with PCB pins



Ordering information

Technical data

Rated current

Rated voltage

Ambient temperature

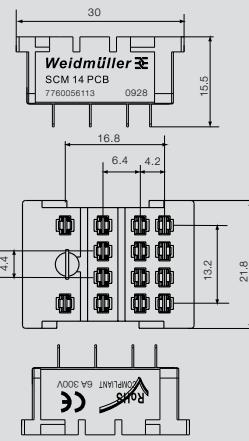
Description

Base with PCB pins, 11-pin

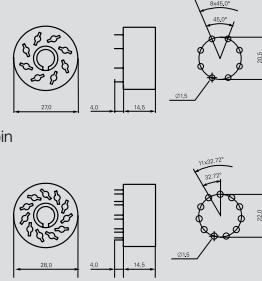
Metal clip SPW PCB

16 A	
400 VAC	
- 40 °C ... +70 °C	
Type	Order No.
SPW PCB	1132800000
SPW METAL CLIP	1238770000

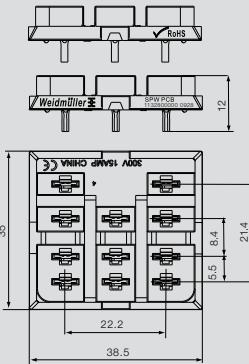
SCM 14 PCB



SRD 8-pin



SPW PCB



PREVENT PROBLEMS & ENSURES OPERATION

LOW HYSTERESIS, NOISE REJECTING RELAY



LED Indication

Gives visual indication of relay operation



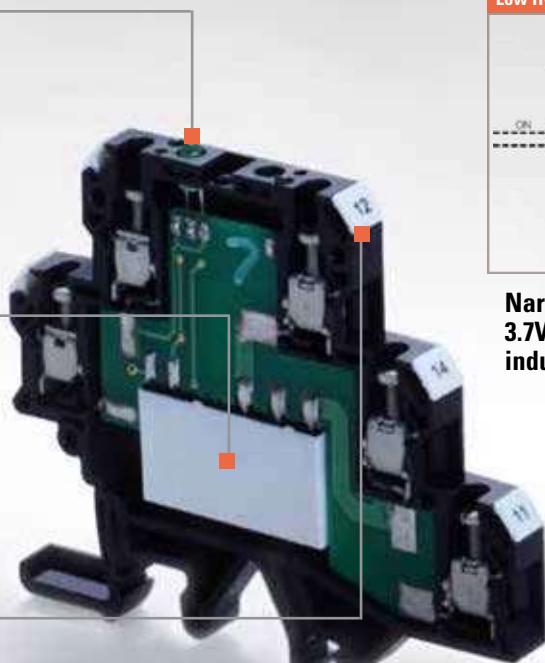
SPDT Relay

6A/240V Change-over contact for installation adaptability

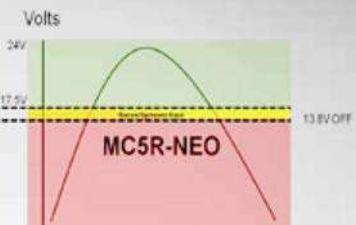


Slimline Housing

Ultra Slim Housing, 6mm wide ensuring maximised space saving in installation panels



Low Hysteresis



Narrow Hysteresis band of only 3.7V. Ensures maximum rejection of industrial noise and interference

Previously all standard relays suffered from high hysteresis. This is where there is a large difference between turn on voltage and drop out voltage. With the **MC5R-NEO** this is no longer a problem! The **MC5R-NEO** has high noise immunity which rejects industrial noise and interference in an ultra slim and compact housing!

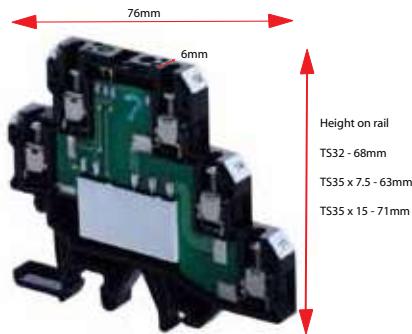
The **MC5R-NEO** ultra slim electromechanical relay is the first low hysteresis relay designed especially for the electrically noisy process and control industry.

MC5R-NEO Low Hysteresis Noise Rejecting Relay

MC5R-NEO

High noise immunity rejects industrial noise

- Rejects interference
- Ultra compact 6mm wide housing
- Change-over contact
- 6A/240Vac rated
- Combifoot housing: TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Input diode protection
- Coil back-EMF diode protection

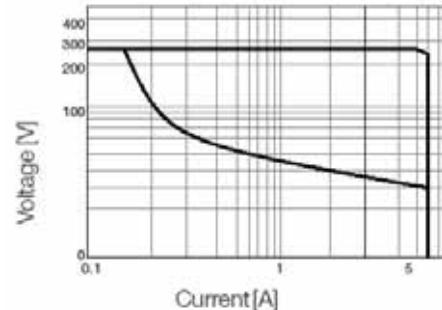


Technical Data

Input A (Nominal Voltage)			24Vdc
Nominal Operate current @ 20°C (typical)			7mA
Turn on voltage/current			16.3V / 4.14mA ±10%
Turn off voltage/current			14.1V / 1.38mA ±10%
Output			
Type	Change-over Contact		
Contact material	Standard	Silver Alloy (Cadmium free)	
	Gold plated	Gold plated silver alloy (for low current switching)	
Nominal Switching Capacity	250Vac 6A, 30Vdc 6A (resistive) - Refer to load limit curve		
Maximum Continuous Current	6A (at maximum voltage) resistive		
Minimum Switching Capacity	Standard	12Vdc, 500mA	
	Gold plated	100mVdc, 0.1mA	
Maximum Switching Power	1500VA, 180W		
Operate time/Release time (at nominal voltage)	10ms/5ms		
Maximum Operating speed	6 operations per second		
Contact Life (Resistive load)	60,000 @ 6A resistive 240Vac / 30Vdc		
Mechanical life	10,000,000 operations		
Isolation			
Initial breakdown voltage	Between open contacts	750Vac	
	Between contacts & coil	2000Vac	
Surge Strength	4000V		
General			
Terminal width	6mm		
Width across rail	76mm		
Height on rail	TS32	68mm	
	TS35 x 7.5	63mm	
	TS35 x 15	71mm	
Operating temperature range	-40°C to +60°C		
Conductor size	Solid	0.5 to 4.0mm ²	
	Flexible	0.5 to 2.5mm ²	
Approvals			
Certification	C Tick		

Installation

Limit curve



General

Warning: to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.

Designed for IEC664 Installation Category II use.

Cleaning

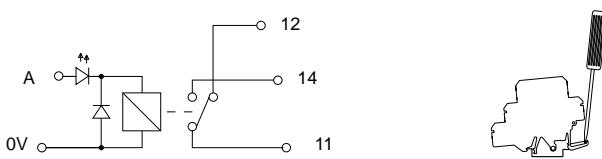
Wipe only with a damp cloth (remove power before cleaning).

Ordering Information

Nom. Volt.	Silver Alloy Contacts	Gold Contacts
24Vdc	7940009903	7940013020
Accessories		
End Plate	AP	1163830000
End Brackets	EW(TS35) EWK(TS32)	0383560000 0206160000
Cross Connection Parts		
Insulated	2 pole 3 pole 4 pole	0482700000 0482800000 0482900000
Uninsulated	75 pole straight 75 pole angled	0535200000 0526400000
Mounting rail		
TS32		0122800000
TS35 x 7.5		0383400000
TS35 x 15		0236400000

Circuit diagram

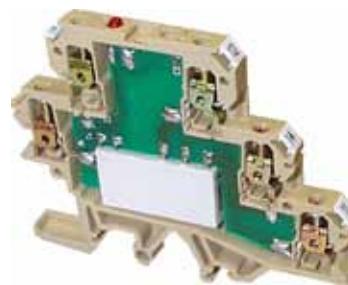
Mounting



MC5R - Single Channel Change-Over Relay

MC5R Single Channel Change-Over

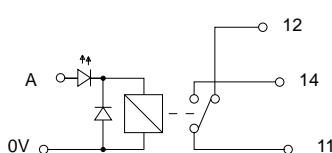
- Ultra compact 6mm wide housing
- Change-over contact
- 6A/240Vac rated
- Combifoot housing: TS32 & TS35
- Combifoot housing: TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Input diode protection
- Coil back-EMF diode protection



Technical Data

Input A (Nominal Voltage)		12Vdc	24Vdc	48Vdc	220/240Vac	110/120Vac
Nominal Operate Voltage (typical)		-	-	-	160-250Vac	85-125Vac
Nominal Operate current @ 20°C (typical)		14mA	7mA	15mA	14mA	7mA
Drop-out current @ 20°C (typical)		2.5mA	1.7mA	0.7mA	-	-
Pick-up current (typical)		9mA	3.2mA	2.2mA	-	-
AC Frequency Range		-	-	-	47-63Hz	47-63Hz
Output						
Type		Change-over Contact				
Contact material	Standard	Silver Alloy (Cadmium free)				
	Gold plated	Gold plated silver alloy (for low current switching)				
Nominal Switching Capacity		250Vac 6A, 30Vdc 6A (resistive) - Refer to load limit curve				
Maximum Continuous Current		6A (at maximum voltage) resistive				
Minimum Switching Capacity	Standard	12Vdc, 500mA				
	Gold plated	100mVdc, 0.1mA				
Maximum Switching Power		1500VA, 180W				
Operate time/Release time (at nominal voltage)		10mS/5mS				
Maximum Operating speed		6 operations per second				
Contact Life		10,000,000 @ 10mA, 24Vdc 5,000 @ 6A, 250Vac				
Mechanical life		10,000,000 operations				
Isolation						
Initial breakdown voltage	Between open contacts	750Vac				
	Between contacts & coil	2000Vac				
Surge Strength		4000V				
General						
Terminal width		6mm				
Width across rail		76mm				
Height on rail	TS32	68mm				
	TS35 x 7.5	63mm				
	TS35 x 15	71mm				
Operating temperature range		-40°C to +60°C				
Conductor size	Solid	0.5 to 4.0mm ²				
	Flexible	0.5 to 2.5mm ²				

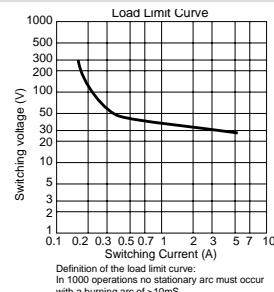
Circuit diagram



Mounting



Installation



General

Warning: to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.

Design for IEC664 Installation Category II use.

Cleaning

Wipe only with a damp cloth (remove power before cleaning).

Location

To be installed in a metal enclosure.

Ordering Information

MC5R Ordering

Nom. Volt.	Silver Alloy Contacts	Gold Plated Contacts
12Vdc	7901610000	7906840000
24Vdc	7901620000	7906850000
48Vdc	7901630000	7906860000
110/120Vac	7901500000	
220/240Vac	7901520000	

Accessories

End Plate	AP	7940005681
End Brackets	EW(TS35) EWK(TS32)	0383560000 0206160000

Cross Connection Parts

Insulated	2 pole	0482700000
	3 pole	0482800000
	4 pole	0482900000

Uninsulated	75 pole straight	0535200000
	75 pole angled	0526400000

Mounting rail

TS32	0122800000
TS35 x 7.5	0383400000
TS35 x 15	0236400000

MC5R - Single Channel, Dual Voltage, Normally Open Contact

MC5R - Single Channel, Dual Voltage

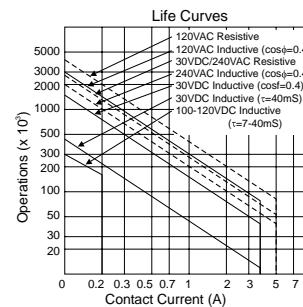
- Dual Input Voltage
- Gold plated normally open contact
- Ultra compact 6mm wide 'Combifoot' housing suits TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Reverse polarity diode protection
- Coil back-EMF diode protection



Technical Data

Input A(B) Nominal Voltage	12(24)Vdc	24(48)Vdc	12(24)Vac/dc	24(48)Vac/dc
Operating Current (A or B)	14mA	7mA	15mA	7mA
Relay Drop-out current @ 20°C	2.5mA	5.5mA		
Relay Pick-up current @ 20°C	11mA	12.5mA		
AC Frequency Range			47-63Hz	47-63Hz
Output				
Type	Normally Open Contact			
Contact material	Gold plated silver alloy (for low current switching)			
Nominal Switching Capacity	250Vac 4A, 30Vdc 4A (resistive)			
Maximum Continuous Current	5A (at maximum voltage) resistive			
Minimum Switching Capacity	100mVdc, 0.1mA			
Maximum Switching Power	1000VA, 120W			
Operate time/Release time (at nominal voltage)	10mS/5mS			
Maximum operating speed (at rated load)	20 cycles per second			
Contact Life (see also life curve)	100,000 @ 4A, 30Vdc 30,000 @ 5A, 250Vac			
Mechanical life	20,000,000 operations			
Isolation				
Initial breakdown voltage	Between open contacts	750Vac		
	Between contacts & coil	2000Vac		
Surge Strength		4000V		
General				
Terminal width		6mm		
Width across rail		76mm		
Height on rail	TS32	68mm		
	TS35 x 7.5	63mm		
	TS35 x 15	71mm		
Operating temperature range		-40°C to +60°C		
Conductor size	Solid	0.5 to 4.0mm ²		
	Flexible	0.5 to 2.5mm ²		

Installation



General

Warning: to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.

Design for IEC664 Installation Category II use.

Cleaning

Wipe only with a damp cloth (remove power before cleaning).

Location

To be installed in a metal enclosure.

Ordering Information

Nom. Volt. A	Nom. Volt. B	Cat. No.
12Vdc	24Vdc	7901540000
24Vdc	48Vdc	7901550000
12Vac/dc	24Vac/dc	7901560000
24Vac/dc	48Vac/dc	7901570000

Accessories

End Plate	AP	7940005681
End Brackets	EW(TS35) EWK(TS32)	0383560000 0206160000

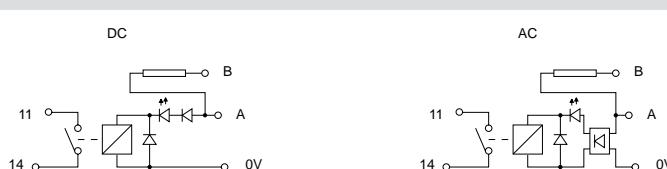
Cross Connection Parts

Insulated	2 pole 3 pole 4 pole	0482700000 0482800000 0482900000
Uninsulated	75 pole straight 75 pole angled	0535200000 0526400000

Mounting rail

TS32	0122800000
TS35 x 7.5	0383400000
TS35 x 15	0236400000

Circuit diagram



Mounting



MC5R - Single Channel, Logic, Normally Open Contact

MC5R - Single Channel, Logic

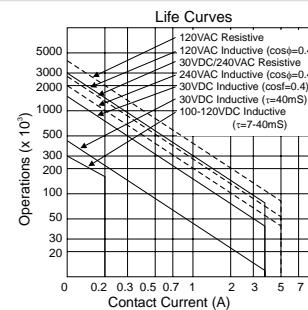
- 5-15V logic input with 24Vdc supply
- Gold plated normally open contact
- Ultra compact 6mm wide 'Combifoot' housing suits TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Reverse polarity diode protection
- Coil back-EMF diode protection



Technical Data

Input A(Aux) Nominal Voltage		5-15Vdc logic (24Vdc)
Operating Current (A or B)		<0.4mA (7mA)
Relay Drop-out current @ 20°C		5.5mA
Relay Pick-up current @ 20°C		12.5mA
Output		
Type	Normally Open Contact	
Contact material	Gold plated silver alloy (for low current switching)	
Nominal Switching Capacity	250Vac 4A, 30Vdc 4A (resistive)	
Maximum Continuous Current	5A (at maximum voltage) resistive	
Minimum Switching Capacity	100mVdc, 0.1mA	
Maximum Switching Power	1000VA, 120W	
Operate time/Release time (at nominal voltage)	10mS/5mS	
Maximum operating speed (at rated load)	20 cycles per second	
Contact Life (see also life curve)	100,000 @ 4A, 30Vdc 30,000 @ 5A, 250Vac	
Mechanical life	20,000,000 operations	
Isolation		
Initial breakdown voltage	Between open contacts	750Vac
	Between contacts & coil	2000Vac
Surge Strength	4000V	
General		
Terminal width	6mm	
Width across rail	76mm	
Height on rail	TS32	68mm
	TS35 x 7.5	63mm
	TS35 x 15	71mm
Operating temperature range	-40°C to +60°C	
Conductor size	Solid	0.5 to 4.0mm ²
	Flexible	0.5 to 2.5mm ²

Installation



General

Warning: to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.

Design for IEC664 Installation Category II use.

Cleaning

Wipe only with a damp cloth (remove power before cleaning).

Location

To be installed in a metal enclosure.

Ordering Information

MC5R Ordering

MC5R Single NO Relay **7901580000**

Accessories

End Plate	AP	7940005681
End Brackets	EW(TS35) EWK(TS32)	0383560000 0206160000

Cross Connection Parts

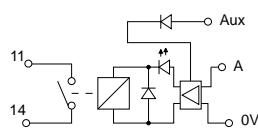
Insulated	2 pole 3 pole 4 pole	0482700000 0482800000 0482900000
Uninsulated	75 pole straight 75 pole angled	0535200000 0526400000

Mounting rail

TS32	0122800000
TS35 x 7.5	0383400000
TS35 x 15	0236400000

Circuit diagram

Logic (DC aux.)

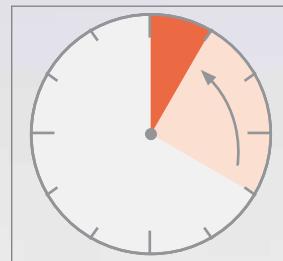
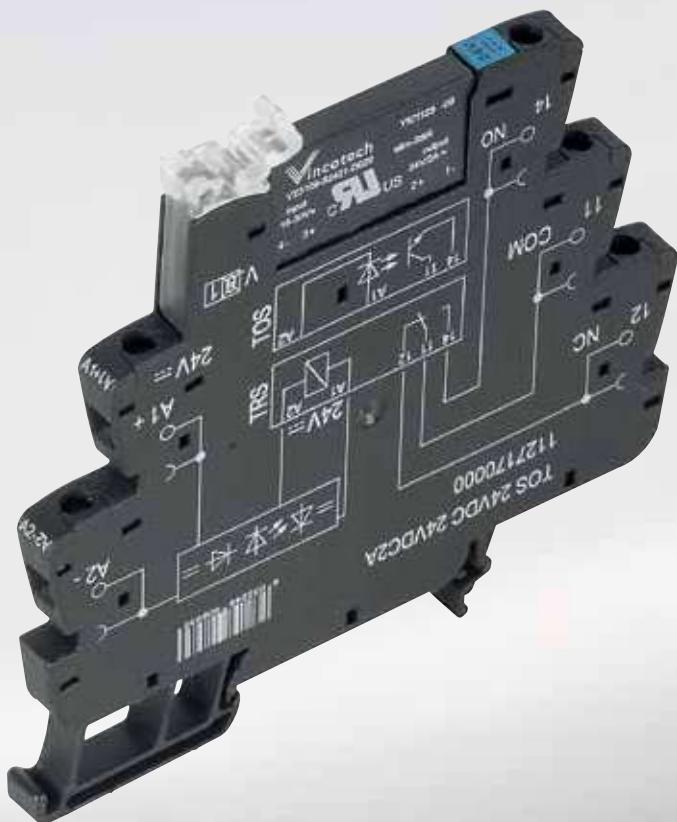


Mounting



CONSTANT COMMITMENT TO INNOVATION...

NEW TERMSERIES SLIMLINE HIGH PERFORMANCE PLUG-IN OPTO COUPLERS



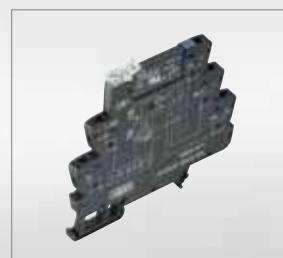
Timesaving

The ability to cross connect each input and output will reduce wiring time.



Visible

With the LED integrated into the Holddown Clip/Ejecting lever, Light is diffused thus indication is brighter and visible in high light levels.



Smaller

The new design reduces the overall height of the opto coupler. This reduction also increases the structural strength of the opto coupler.

The new **TERMSERIES** is the **NEXT** generation of slimline opto coupler from Weidmuller and incorporates a number of new innovations from its already highly proven **MICROSERIES** slimline opto coupler family.

Not only have Weidmuller's R&D team managed to design the product in a lower profile space saving housing but they have also managed to increase the structural strength of the product and most importantly also improve its performance. If this doesn't make the new **TERMSERIES** your number 1 choice in slimline opto relays then we don't know what will!

Contents

Optos

Termseries Optos

Slimline Interface Optocouplers



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ACCESSORIES

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Specialty Terminal Optocouplers



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SOLENOID DRIVE 10A

SOLENOID DRIVER 1A

DUAL VOLTAGE

Termopto and Microopto

Slimline Functional Optocouplers



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TERMOPTO

MICROOPTO

ACCESSORIES

TERMSERIES - Opto modules

Termseries

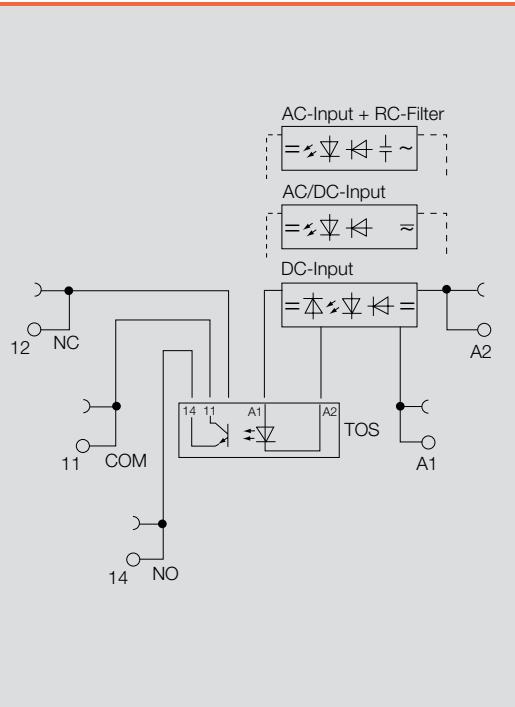
Solid State Relays

0...48 V DC / 100 mA

0...24 V DC / 2 A

24...230 V AC / 1 A

- Space-saving 6.4 mm width
- 5 cross connection level
- Screw and tension connection
- Multi voltage input: 24...230 V UC (AC/DC) in one unit



Load side	24 V 0.1 A DC	24 V 2 A DC	230 V 1 A AC
Output	Bipolar transistor	MOS-FET	Triac
Switching voltage	0...48 V DC	0...24 V DC	24...240 V AC
Frequency range of switching voltage	-	-	45 Hz ... 60 Hz
Continuous current	100 mA	2 A	1 A
Peak reverse voltage	54 V	33 V	600 V
Forward voltage	< 1 V DC	< 120 mV	< 1 V
Max. switching frequency at rated load	300 Hz	300 Hz	3 Hz
Short-circuit-proof / Protective circuit	No / Free-wheel diode	No / Free-wheel diode	no / -
General data			
Status indicator / Free-wheel (Input)	LED green / yes		
Reverse polarity protection (Input)	yes		
Ambient temperature (operational)	-40 °C to 60 °C		
Storage temperature	-40 °C to 85 °C		
Humidity	5 %...95 %, Tu=40 °C, no condensation		
Reference temperature technical data	20 °C		
Insulation coordination (EN 50 178)			
Rated voltage	300 V		
Rated impulse voltage	6 kV (1.2 / 50 µs)		
Overvoltage category	III		
Pollution degree	2		
Clearance and creepage distance input / output	>= 5.5 mm		
Total circuit to rail	4 kVeff / 1 min		

Dimensions	
Clamping range	mm ² 0.14...1.5 mm ²
Height x length x width	mm 90 x 88 x 6.4

Note

24 V - 230 V UC (AC/DC)

Control side	
Rated control voltage	24 V...230 V UC (AC/DC) +/- 10 %
Input current	22 mA @ 24 V DC / 4 mA @ 230 V AC (+/- 10 %)
Input power	530 mW @ 24 V DC / 930 mW @ 230 V AC
Making threshold	11 V / 20 mA
Dropout threshold	5 V / 6 mA

Ordering data	24 V 0.1 A DC	24 V 2 A DC	230 V 1 A AC
Screw connection	TOS 24-230VUC* 48VDC0.1A 1127020000	TOS 24-230VUC* 24VDC2A 1127250000	TOS 24-230VUC* 230VAC1A 1127500000
Tension clamp connection	TOZ 24-230VUC* 48VDC0.1A 1127130000	TOZ 24-230VUC* 24VDC2A 1127380000	TOZ 24-230VUC* 230VAC1A 1127620000

*AC/DC (UC)

Note	Spare relay type SSS 24V...
------	-----------------------------

TERMSERIES - Opto modules

Termseries

Solid State Relays

Ordering data

Control side

Rated control voltage	5 V DC +20 %
Input current AC/DC	- / 39 mA
Input power	200 mW
Making threshold	3.8 V DC @
Dropout threshold	1.6 V DC @

5 V DC

12 V DC

24 V DC

24 V UC (AC/DC)

48 V UC (AC/DC)

48 V UC (AC/DC)

48 V UC (AC/DC) +10 %

Ordering data

Screw connection
24 V 0.1 A DC

TOS 5VDC 48VDC0.1A
1126920000

TOS 12VDC 48VDC0.1A
1126930000

TOS 24VDC 48VDC0.1A
1126940000

TOS 24VUC* 48VDC0.1A
1126950000

TOS 48VUC* 48VDC0.1A
1126960000

24 V 2 A DC

TOS 5VDC 24VDC2A
1127140000

TOS 12VDC 24VDC2A
1127150000

TOS 24VDC 24VDC2A
1127160000

TOS 24VUC* 24VDC2A
1127170000

TOS 48VUC* 24VDC2A
1127190000

230 V 1 A AC

TOS 5VDC 230VAC1A
1127390000

TOS 12VDC 230VAC1A
1127400000

TOS 24VDC 230VAC1A
1127410000

TOS 24VUC* 230VAC1A
1127420000

TOS 48VUC* 230VAC1A
1127430000

Tension clamp connection
24 V 0.1 A DC

TOZ 5VDC 48VDC0.1A
1127030000

TOZ 12VDC 48VDC0.1A
1127040000

TOZ 24VDC 48VDC0.1A
1127050000

TOZ 24VUC* 48VDC0.1A
1127060000

TOZ 48VUC* 48VDC0.1A
1127070000

24 V 2 A DC

TOZ 5VDC 24VDC2A
1127270000

TOZ 12VDC 24VDC2A
1127280000

TOZ 24VDC 24VDC2A
1127290000

TOZ 24VUC* 24VDC2A
1127300000

TOZ 48VUC* 24VDC2A
1127310000

230 V 1 A AC

TOZ 5VDC 230VAC1A
1127510000

TOZ 12VDC 230VAC1A
1127520000

TOZ 24VDC 230VAC1A
1127530000

TOZ 24VUC* 230VAC1A
1127540000

TOZ 48VUC* 230VAC1A
1127550000

Note

Spare relay type SSS 5V...

Spare relay type SSS 5V...

Spare relay type SSS 24V...

Spare relay type SSS 24V...

Spare relay type SSS 24V...

Ordering data

Control side

Rated control voltage	60 V UC (AC/DC) +10 %
Input current AC/DC	5 mA / 3 mA
Input power	300 mVA / 180 mW
Making threshold	35 V @
Dropout threshold	20 V @

60 V UC (AC/DC)

120 V UC (AC/DC)

230 V UC (AC/DC)

120 V AC RC

230 V AC RC

Ordering data

Control side

Rated control voltage	60 V UC (AC/DC) +10 %
Input current AC/DC	5 mA / 3 mA
Input power	300 mVA / 180 mW
Making threshold	35 V @
Dropout threshold	20 V @

60 V UC (AC/DC)

120 V UC (AC/DC)

230 V UC (AC/DC)

120 V AC RC

230 V AC RC

Note

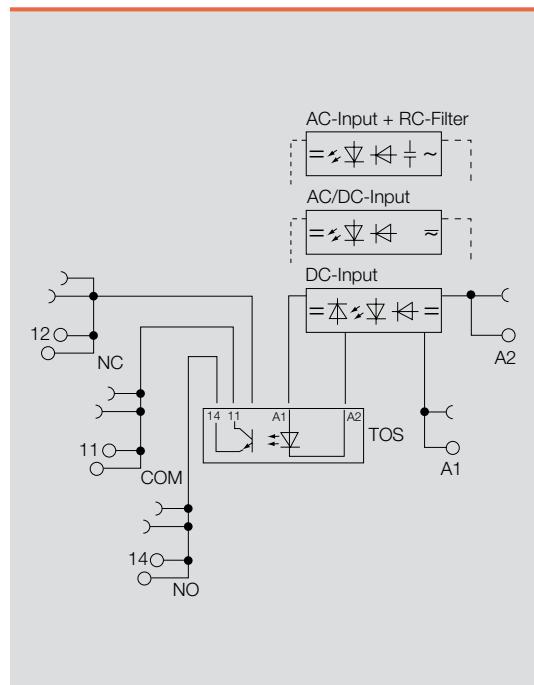
Spare relay type SSS 60V...

TERMSERIES - Opto modules

Termseries
Solid State Relays

 0...33 V DC / 5A
 12...275 V AC / 3A

- Multi voltage input: 24...230 V UC (AC/DC) in one unit



Load side	24 V 5 A DC	230 V 3 A DC
Output	MOS-FET	TRIAC, zero cross switch
Switching voltage	0...33 V DC	12...275 V AC
Continuous current	1 mA...5 A	50 mA...3 A
Peak reverse voltage	35 V	600 V
Forward voltage	< 300 mV	< 1.1 V
Max. switching frequency at rated load	300 Hz	3 Hz
Short-circuit-proof / Protective circuit	No / Free-wheel diode	no / -
General data		
Status indicator / Free-wheel (Input)	LED green / yes	
Reverse polarity protection (Input)	yes	
Ambient temperature (operational)	-40 °C to 60 °C	
Storage temperature	-40 °C to 85 °C	
Humidity	5 %...95 %, Tu=40 °C, no condensation	
Reference temperature technical data	20 °C	
Insulation coordination (EN 50 178)		
Rated voltage	300 V	
Rated impulse voltage	6kV (1.2 / 50 µs)	
Oversupply category	III	
Pollution degree	2	
Clearance and creepage distance input / output	>= 5.5 mm	
Total circuit to rail	4kVeff / 1 min	
Dimensions		
Clamping range	mm ² 0.14...1.5 mm ²	
Height x length x width	mm 90 x 88 x 12.8	
Note		

	24 V DC	24 V - 230 V UC*
Control side		
Rated control voltage	24 V DC +/- 20 %	24 V...230 V UC* +/- 10 %
Input current	8mA +/- 20 %	22 mA @ 24V DC / 4mA @ 230 V AC (+/- 10 %)
Input power	192 mW	530 mW @ 24 V DC / 930 mW @ 230 V AC
Making threshold	15V DC @	11V
Dropout threshold	11V DC @	5 V

*AC/DC (UC)

Ordering data		
Screw connection 24 V DC 5A	TOS 24VDC / 24VDC 5A 1127630000	TOS 24-230VUC*/24VDC3A 1127640000
230 V AC 3A	TOS 24VDC / 230VAC 3A 1127680000	TOS 24-230VUC*/230VAC5A 1127690000
Tension clamp connection 24 V DC 5A	TOZ 24VDC / 24VDC 5A 1127650000	TOZ 24-230VUC*/24VDC3A 1127670000
230 V AC 3A	TOZ 24VDC / 230VAC3A 1127700000	TOZ 24-230VUC*/230VAC5A 1127710000

*AC/DC (UC)

Note	Spare relay type SSR10...32 V DC/...

TERMSERIES - Opto modules

Empty socket 6.4 mm



Type / 1 CO, Screw connection	Input voltage	Order No.
TRS 5VDC 1CO empty	5 V DC ⁽¹⁾	1123220000
TRS 12VDC 1CO empty	12 V DC ⁽²⁾	1123230000
TRS 24VDC 1CO empty	24 V DC ⁽³⁾	1123240000
TRS 24VUC (AC/DC) 1CO empty	24 V AC / DC ⁽³⁾	1123250000
TRS 48VUC (AC/DC) 1CO empty	48 V AC / DC ⁽³⁾	1123270000
TRS 60VUC (AC/DC) 1CO empty	60 V AC / DC ⁽⁴⁾	1123280000
TRS 120VUC (AC/DC) 1CO empty	120 V AC / DC ⁽⁴⁾	1123290000
TRS 230VUC (AC/DC) 1CO empty	230 V AC / DC ⁽⁴⁾	1123300000
TRS 120VAC RC 1CO empty	120 V AC ⁽⁴⁾	1123310000
TRS 230VAC RC 1CO empty	230 V AC ⁽⁴⁾	1123320000
TRS 24...230VAC (AC/DC) 1CO empty	24...230 V AC / DC ⁽³⁾	1123330000
Type / 1 CO, Tension clamp connection		
TRZ 5VDC 1CO empty	5 V DC ⁽¹⁾	1123340000
TRZ 12VDC 1CO empty	12 V DC ⁽²⁾	1123350000
TRZ 24VDC 1CO empty	24 V DC ⁽³⁾	1123370000
TRZ 24VUC (AC/DC) 1CO empty	24 V AC / DC ⁽³⁾	1123380000
TRZ 48VUC (AC/DC) 1CO empty	48 V AC / DC ⁽³⁾	1123390000
TRZ 60VUC (AC/DC) 1CO empty	60 V AC / DC ⁽⁴⁾	1123400000
TRZ 120VUC (AC/DC) 1CO empty	120 V AC / DC ⁽⁴⁾	1123410000
TRZ 230VUC (AC/DC) 1CO empty	230 V AC / DC ⁽⁴⁾	1123420000
TRZ 120VAC RC 1CO empty	120 V AC ⁽⁴⁾	1123430000
TRZ 230VAC RC 1CO empty	230 V AC ⁽⁴⁾	1123440000
TRZ 24...230VUC (AC/DC) 1CO empty	24...230 V AC / DC ⁽³⁾	1123450000

Useable with ⁽¹⁾ RSS...005; SSS 5V... ⁽²⁾ RSS...012 ⁽³⁾ RSS...024; SSS 24V... ⁽⁴⁾ RSS...060; SSS 60V...

Empty socket 12.8 mm



Type / 1 CO, Screw connection	Input voltage	Order No.

| Type / 2 CO, Screw connection | | |

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TERMSERIES - Opto modules

RSS Relays

Technical data		RSS113...	RSS112...
Type of contact / Number of contacts		1 CO contact	1 CO contact
Contact material		Silver/Nickel (AgNi)	AgNi Gold Plated (5uAu) ⁽³⁾
Max. switching voltage / current	5 V / 6A ⁽¹⁾	250 V / 6A ⁽¹⁾	250 V / 6A ⁽¹⁾
Min. switching voltage / current	5 V / 100 mA ⁽²⁾	1 V / 1 mA	1 V / 1 mA
Min. mechanical lifetime	5x10 ⁶ ⁽¹⁾	5x10 ⁶ ⁽¹⁾	5x10 ⁶ ⁽¹⁾
Min. mechanical lifetime	NO: 5x10 ⁴ ; NC: 3x10 ⁴ ⁽¹⁾	NO: 5x10 ⁴ ; NC: 3x10 ⁴ ⁽¹⁾	NO: 5x10 ⁴ ; NC: 3x10 ⁴ ⁽¹⁾
Max. switch-on / switch-off delay	8 / 4 ms	8 / 4 ms	8 / 4 ms
Ambient temperature (operational)	-40...+85 °C	-40...+85 °C	-40...+85 °C
Making / Dropout voltage coil	Type. 70 % / 5 % U _{NENN}	Type. 70 % / 5 % U _{NENN}	Type. 70 % / 5 % U _{NENN}
Note		<small>⁽¹⁾ At resistive load ⁽²⁾ 10 V / 10 mA; 24 V / 1 mA ⁽³⁾ Gold (Au) - plate operate up to 0.25 W</small>	
Coil data		Rated voltage / current	Order No.
RSS...005		5 V DC / 34 mA	4061580000
RSS...012		12 V DC / 14 mA	4061610000
RSS...024		24 V DC / 7 mA	4060120000
RSS...060		60 V DC / 3 mA	4061630000

RCL Relays

Technical data		RCL424...	RCL425...
Type of contact / Number of contacts		2 CO contact	2 CO contact
Contact material		Silver/Nickel (AgNi)	AgNi Gold Plated (5uAu) ⁽³⁾
Max. switching voltage / current	250 V / 8A ⁽¹⁾	250 V / 8A ⁽¹⁾	250 V / 8A ⁽¹⁾
Min. switching voltage / current	5 V / 100 mA ⁽²⁾	1 V / 1 mA	1 V / 1 mA
Min. mechanical lifetime	30x10 ⁶ ⁽¹⁾	30x10 ⁶ ⁽¹⁾	30x10 ⁶ ⁽¹⁾
Min. mechanical lifetime	10x10 ³ ⁽¹⁾	10x10 ³ ⁽¹⁾	10x10 ³ ⁽¹⁾
Max. switch-on / switch-off delay	8 / 6 ms	8 / 6 ms	8 / 6 ms
Ambient temperature (operational)	-40...+85 °C	-40...+85 °C	-40...+85 °C
Making / Dropout voltage coil	Type. 70 % / 10 % U _{NENN}	Type. 70 % / 10 % U _{NENN}	Type. 70 % / 10 % U _{NENN}
Note		<small>⁽¹⁾ At resistive load ⁽²⁾ 10 V / 10 mA; 24 V / 1 mA ⁽³⁾ Gold (Au) - plate operate up to 0.25 W</small>	
Coil data		Rated voltage / current	Order No.
RCL...005		5 V DC / 80 mA	8693790000
RCL...012		12 V DC / 33 mA	4058560000
RCL...024		24 V DC / 16 mA	4058570000
RCL...048		48 V DC / 8 mA	4058750000
RCL...060		60 V DC / 6 mA	4058760000
RCL...110		110 V DC / 3 mA	4058590000

TERMSEIES - Opto modules

Small Solid-State Relays

Technical data	SSS...24 V 0.1 A DC	SSS...24 V 2 A DC	SSS...230 V 1 A AC
Output	Bipolar transistor	MOS-FET	Triac
Switching voltage	0...48 V DC	0...24 V DC	24...240 V AC
Continuous current	100 mA	2 A	1 A
Peak reverse voltage	54 V	33 V	600 V
Forward voltage	< 1 V DC	< 120 mV	< 1 V
Test voltage input /output	2.5 kV	2.5 kV	3.75 kV
Ambient temperature (operational)	-20...+60 °C	-20...+60 °C	-20...+60 °C
Storage temperature	-40...+70 °C	-40...+70 °C	-40...+70 °C
Note			
Input	Rated voltage / current	Order No.	Order No.
SSS 5 V...	2.5...6 V DC / 4 mA	4064320000	-
SSS 24 V...	16...30 V DC / 7 mA	4601180000	-
SSS 60 V...	52...72 V DC / 3 mA	4061230000	-
SSS 5 V...	2.5...6 V DC / 9 mA	-	4064310000
SSS 24 V...	18...30 V DC / 7 mA	-	4601190000
SSS 60 V...	40...72 V DC / 3 mA	4601200000	-
SSS 5 V...	2.5...6 V DC / 15 mA	-	1132260000
SSS 24 V...	18...30 V DC / 7 mA	-	4061210000
SSS 60 V...	40...72 V DC / 3 mA	-	4061220000

Solid-State Relays

Technical data	SSR.../0-35 V DC 5A	SSR.../12-275 V AC 3A
Output	MOS-FET	TRIAC, zero cross switch
Switching voltage	0...33 V DC	12...275 V AC
Continuous current	1mA...5 A	50mA...3 A
Peak reverse voltage	35 V	600 V
Forward voltage	< 300 mV	< 1.1 V
Test voltage input /output	2.5 kV	-
Ambient temperature (operational)	-20...+80 °C	-40...+100 °C
Storage temperature		
Note		
Coil data	Rated voltage / current	Order No.
SSR10...32 V DC/...	10...32 V/3...13 mA	1132310000
		1132290000

TERMSERIES - Optos Accessories

Pluggable cross connection

Type	No. of poles / pitch	Order No.
ZQV 1.5N/R6.4/2 GE	2 / 6.4	1193670000
ZQV 1.5N/R6.4/10 GE	10 / 6.4	1193680000
ZQV 1.5N/R6.4/19 GE	19 / 6.4	1193690000
ZQV 1.5N/R12.8/10 GE	10 / 12.8	1193700000

Supply terminal

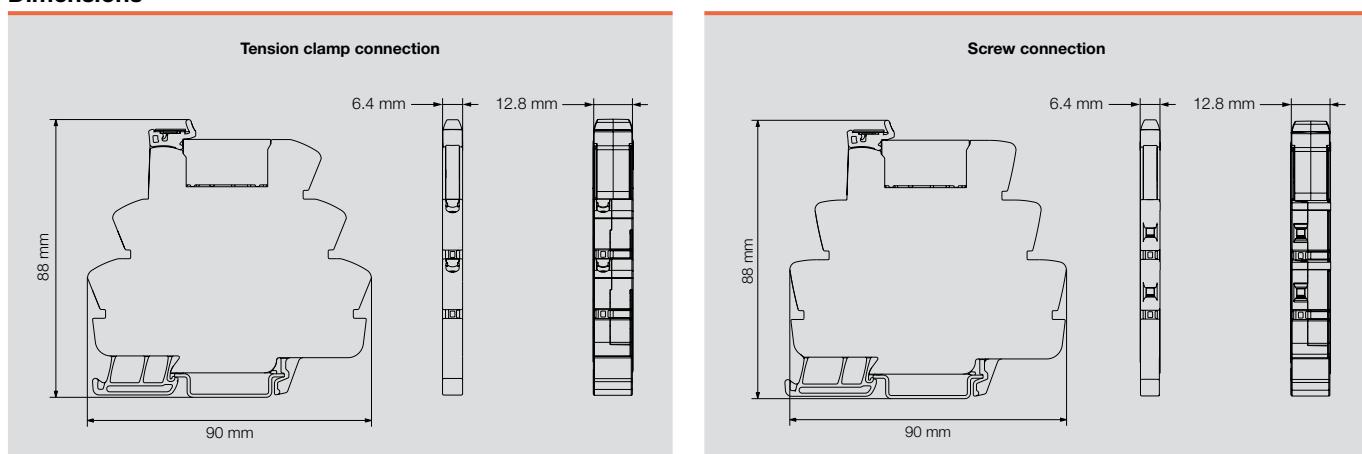
Type	Connection technology	Order No.
TXS SUPPLY	Screw connection	1240780000
TXZ SUPPLY	Tension clamp connection	1240790000

Additional accessory

Type / Isolation plate	Order No.
TW TXS/TXZ R3.2	1240800000
Marker	
WS 10/6 MC Middle	1818400000
Screw driver	
SDK PH0	9008470000
SD 0.6 x 3.5 x 100	9008330000
End bracket	
WEW35/2 SW	1061210000

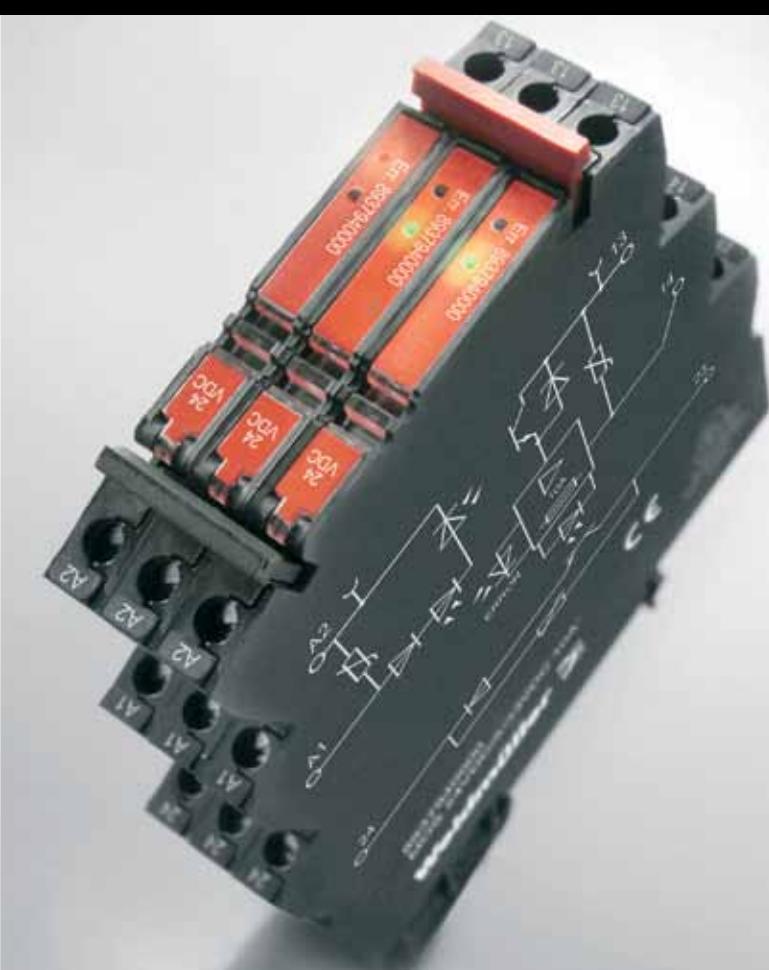
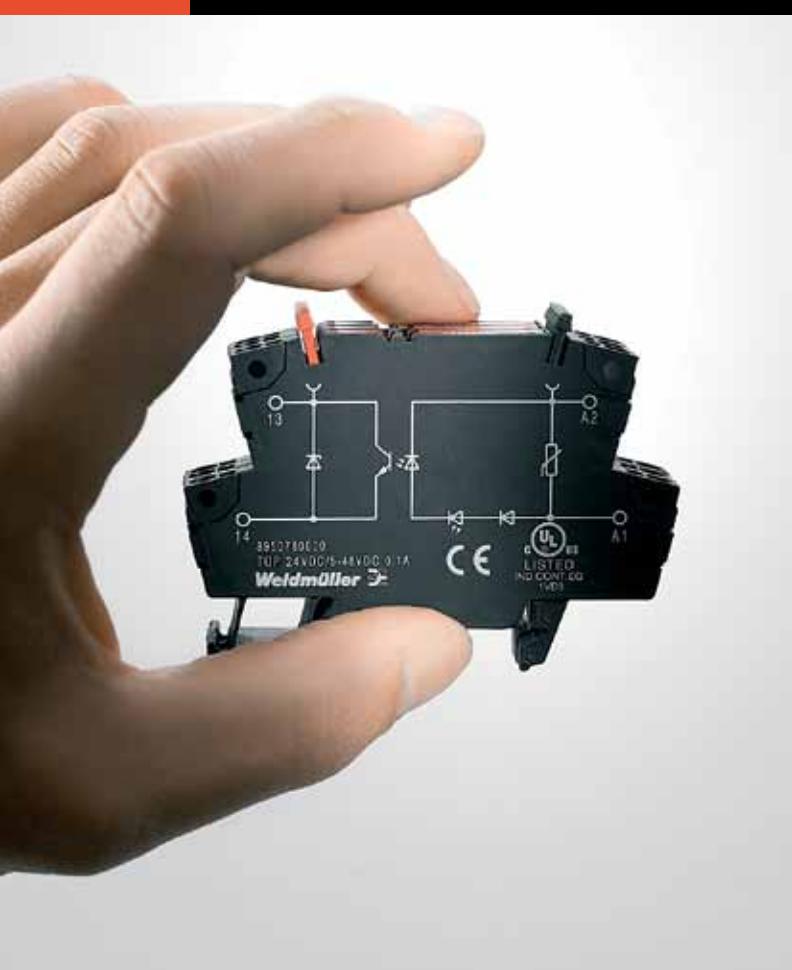
Technical data

Conductor	Screw connection	Tension clamp connection
1 conductor		
Solid H07V-U	mm ²	mm ²
Stranded H07V-K	mm ²	mm ²
... with wire end ferrule	mm ²	mm ²
... with wire end ferrule with plastic collar	mm ²	mm ²
2 conductor with same size		
Solid H07V-U	mm ²	mm ²
Stranded H07V-K	mm ²	mm ²
... with twin wire end ferrule H...D ZH	mm ²	mm ²
Clamping range AWG.../1	AWG	AWG
Clamping range AWG.../7	AWG	AWG
Clamping range AWG.../19	AWG	AWG
Plug gauge to IEC 60947-1	Size	A1 / B1
General data		
Nominal torque	Nm	0.14...1.5
Stripping length	mm	0.14...1.5
Continuous current ZQV 1.5N/R6.4	A	0.14...1.5
No. Contact durability relay / ZQV		A1 / B1
0.4		
8		
17.5; UL: 10		8
10		17.5; UL: 10
		10

Note**Dimensions**

IN TERMS OF LIFE GO WITH AN OPTO

AS SMALL AS A TERMINAL...
WEIDMULLER TERMOPTO & MICROOPTO



Weidmüller's comprehensive range of Optocouplers provides customers with a solution for all applications. All products are designed and constructed with a focus of high quality, market leading features and space saving design.

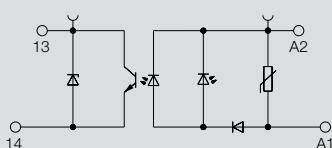
Optocouplers provide a compact, electronic alternative to electro-mechanical relays. The no-wear semiconductor switch and comprehensive protective circuitry ensure a long product life and reliable switching operation that will increase the reliability and service life of your electrical application.

TERMOPTO - Opto modules

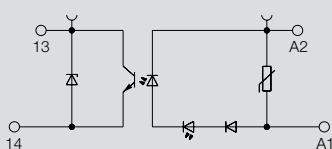
TERMOPTO output variants DC 500 mA



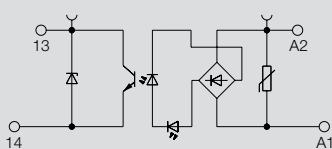
5 V DC



12...220 DC



24...230 V AC



Load side

Solid-state type	Transistor
Nominal switching voltage / current	5...48 V DC / 500 mA
Voltage drop at max. load	< 1 V
Leakage current	< 10 µA
Short-circuit-proof / Protective circuit	No / Diode
Switch-off delay / Switch-on delay	< 200 µs / < 20 µs
Continuous current	500 mA
Load category	DC1

General data

Ambient temperature (operational)	-20 °C...+60 °C
Storage temperature	-40 °C...+80 °C
Flammability class UL 94	V-0
Humidity	5...95 % rel. humidity $T_u = 40^\circ\text{C}$, no condensation
Approvals	cULus; CE
Standards	EN 50178, IEC 62314, UL508

Insulation coordination (EN 50 178)

Rated voltage	300 V
Rated impulse withstand voltage	4 kV
Clearance and creepage distances for control/load side	> 3 mm
Overshoot category	III
Pollution degree	2

Dimensions

	Screw connection	PUSH IN connection
Clamping range (nominal / min. / max.)	mm ² 2.5 / 0.5 / 4	1.5 / 0.5 / 2.5
Length x width x height	mm 74.5 / 6.1 / 55	79.5 / 6.1 / 55

Note

Applications

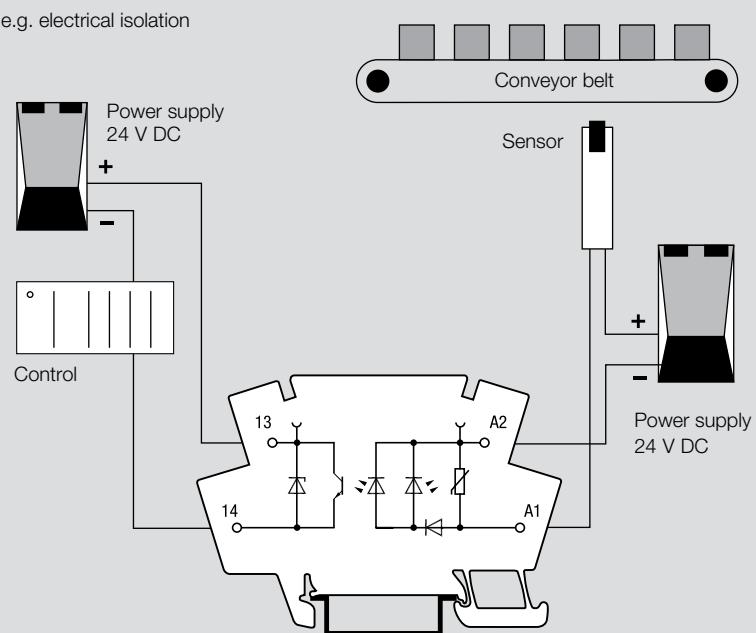
The **TERMOPTO** opto module is used in industrial applications in which electrical isolation and signal conditioning without switching amplification is sufficient.

The compact design in terminal-block format saves space on the rail and offers the option of a pluggable cross-connection.

The choice between 10 input voltages and 3 output voltages as well as between screw or PUSH IN connection technology gives 60 variations for different applications.

The integrated protective circuit ensures sufficient protection in applications with resistive as well as slightly inductive and capacitive loads. For purely inductive, capacitive or comparable loads with high switch-on and switch-off peaks, such as solenoid valves or filament lamps, ensure that the module is dimensioned appropriate or an additional safeguard is used.

e.g. electrical isolation



TERMOPTO - Opto modules

TERMOPTO output variants DC 500 mA

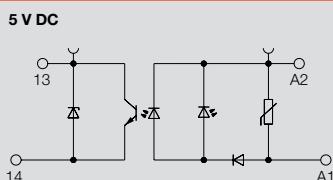
Ordering data	5 V DC	12 V DC	24 V DC	48...60 V DC	110 V DC
Control side					
Rated control voltage	5 V DC	12 V DC	24 V DC	48...60 V DC	110 V DC
Power rating	< 40 mW	< 95 mW	≤ 170 mW	≤ 200 mW	≤ 280 mW
making voltage	≥ 4 V DC	≥ 9,6 V DC	≥ 19,2 V DC	≥ 38,4 V DC	≥ 88 V DC
Dropout voltage	≤ 2 V DC	≤ 4,8 V DC	≤ 9,6 V DC	≤ 19,2 V DC	≤ 44 V DC
Input frequency	< 200 Hz				
Status indicator	Green LED				
Protective circuit	Varistor, reverse polarity protection				
Ordering data					
Screw connection Type	TOS 5VDC/48VDC 0,5A	TOS 12VDC/48VDC 0,5A	TOS 24VDC/48VDC 0,5A	TOS 48-60VDC/48VDC 0,5A	TOS 110VDC/48VDC 0,5A
Order No.	8950900000	8950910000	8950920000	8950930000	8950940000
PUSH IN connection Type	TOP 5VDC/48VDC 0,5A	TOP 12VDC/48VDC 0,5A	TOP 24VDC/48VDC 0,5A	TOP 48-60VDC/48VDC 0,5A	TOP 110VDC/48VDC 0,5A
Order No.	8950960000	8950970000	8950980000	8950990000	8951000000

Note	220 V DC	24 V AC	48...60 V AC	120 V AC	230 V AC
Ordering data					
Control side					
Rated control voltage	220 V DC	24 V AC	48...60 V AC	120 V AC	230 V AC
Power rating	≤ 360 mW	< 0,18 VA	≤ 0,2 VA	≤ 0,3 VA	≤ 0,4 VA
making voltage	≥ 187 V DC	≥ 21,6 V AC	≥ 38,4 V AC	≥ 102 V AC	≥ 207 V AC
Dropout voltage	≤ 93,5 V DC	≤ 9,6 V AC	≤ 19,2 V AC	≤ 48 V AC	≤ 69 V AC
Input frequency	< 200 Hz	< 10 Hz	< 10 Hz	< 10 Hz	< 10 Hz
Status indicator	Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit	Varistor, reverse polarity protection	Varistor	Varistor	Varistor	Varistor
Ordering data					
Screw connection Type	TOS 220VDC/48VDC 0,5A	TOS 24VAC/48VDC 0,5A	TOS 48-60VAC/48VDC 0,5A	TOS 120VAC/48VDC 0,5A	TOS 230VAC/48VDC 0,5A
Order No.	8950950000	8951020000	8951030000	8951040000	8951050000
PUSH IN connection Type	TOP 220VDC/48VDC 0,5A	TOP 24VAC/48VDC 0,5A	TOP 48-60VAC/48VDC 0,5A	TOP 120VAC/48VDC 0,5A	TOP 230VAC/48VDC 0,5A
Order No.	8951010000	8951060000	8951070000	8951080000	8951090000

Note

TERMOPTO - Opto modules

TERMOPTO output variants DC 4 A



Load side	
Solid-state type	Transistor
Nominal switching voltage / current	3...33 V DC / 4 A
Voltage drop at max. load	< 1 V
Leakage current	< 10 µA
Short-circuit-proof / Protective circuit	No / Diode
Switch-off delay / Switch-on delay	< 200 µs / < 20 µs
Continuous current	4 A
Load category	DC1
General data	
Ambient temperature (operational)	-20 °C...+60 °C
Storage temperature	-40 °C...+80 °C
Flammability class UL 94	V-0
Humidity	5...95 % rel. humidity T _w = 40°C, no condensation
Approvals	CE; cULus
Standards	EN 50178, IEC 62314, UL508
Insulation coordination (EN 50 178)	
Rated voltage	300 V
Rated impulse withstand voltage	4 kV
Clearance and creepage distances for control/load side	> 3 mm
Oversupply category	III
Pollution degree	2

Dimensions	Screw connection	PUSH IN connection
Clamping range (nominal / min. / max.)	mm ² 2.5 / 0.5 / 4	1.5 / 0.5 / 2.5
Length x width x height	mm 74.5 / 6.1 / 55	79.5 / 6.1 / 55

Note

Ordering data

Control side

Rated control voltage	24 V DC
Power rating	≤ 170 mW
making voltage	≥ 16.8 V DC
Dropout voltage	≤ 9.6 V DC
Input frequency	10 Hz
Status indicator	Green LED
Protective circuit	Varistor, reverse polarity protection

24 V DC

Ordering data

Screw connection	Type
	Order No.
PUSH IN connection	Type
	Order No.

TOS 24VDC/24VDC 4A

1275100000

TOP 24VDC/24VDC 4A

1254880000

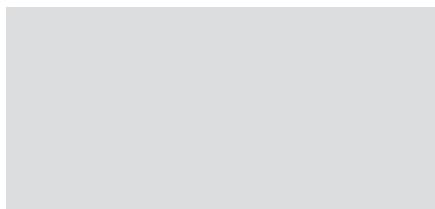
Note

MICROOPTO – Opto modules

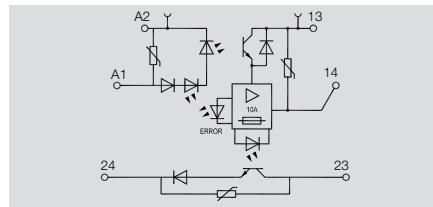
For switching valves up to 24 V DC

10 A

- Only 6 mm width
- Pluggable cross-connection
- Installation on TS35
- Status indicator and error message contact in case of failures on the output



24 V DC / 5-33 V DC 10 A



Technical data

Control side

Rated control voltage

Power rating

making voltage

Dropout voltage

Input frequency

Status indicator

Protective circuit

Load side

Solid-state type

Rated switching voltage

Rated switching current

Voltage drop at max. load

Leakage current

Short-circuit-proof / Protective circuit

Switch-on delay / Switch-off delay

Continuous current

Pulse loading, max. current

Load category

General data

Alarm contact

Ambient temperature

Storage temperature

Flammability class UL 94

Humidity

Approvals

Standards

Insulation coordination (EN 50 178)

Rated voltage

Rated impulse withstand voltage

Clearance and creepage distances for control/load side

Oversupply category

Pollution degree

Dimensions

Clamping range (nominal / min. / max.) mm²

Length x width x height mm

Note

Ordering data

Connection system

Screw connection

Note

Screw connection

2.5 / 0.5 / 4

90 / 6.1 / 98

Suppressor circuitry for inductive loads, 10-cm installation clearance to inductive switching devices

Type

MOS 24VDC/5-33VDC 10A

Qty.

1

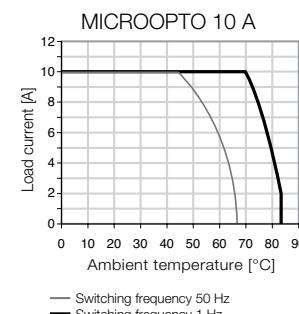
Order No.

8937940000

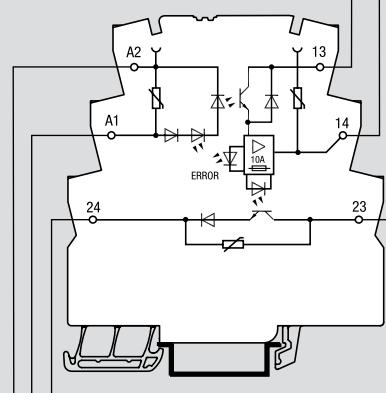
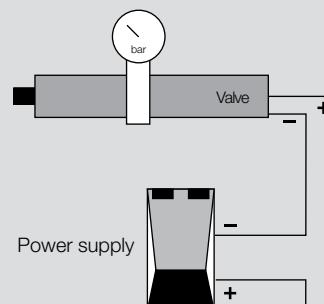
The **MICROOPTO SOLENOID** solid-state relay is used especially as switching amplifier for actuators up to 24 V DC and 10 A with inductive loads such as solenoid valves and contactors.

A potential-free signalling contact transmits errors, such as short circuit, to the controller.

The **MICROOPTO SOLENOID** solid-state relay is short-circuit-proof and protected against power-related transients and voltage peaks by extensive protective circuits. The closed housing also offers a high level of protection against contact.



e.g. pneumatic valve



Auxiliary contact for error messages

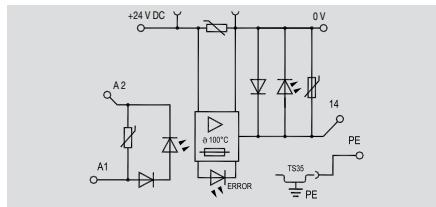
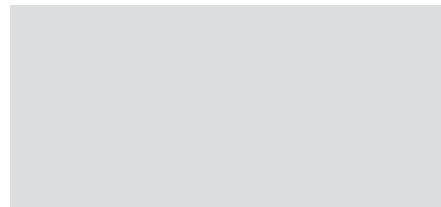
Control

MICROOPTO – Opto modules

For direct connection of actuators up to 24 V DC, 2 A

- Only 6 mm width
- Plug-in cross-connection
- PE connection direct to mounting rail
- Status display when error in output

8...30 V DC 2 A



Technical data

Control side

Rated control voltage

Power rating

making voltage

Dropout voltage

Input frequency

Protective circuit

Load side

Solid-state type

Rated switching voltage

Rated switching current

Voltage drop at max. load

Leakage current

Short-circuit-proof / Protective circuit

Switch-on delay / Switch-off delay

Continuous current

Pulse loading, max. current

Load category

Status indicator

General data

Ambient temperature

Storage temperature

Flammability class UL 94

Humidity

Approvals

Standards

Insulation coordination (EN 50 178)

Rated voltage

Rated impulse withstand voltage

Clearance and creepage distances for control/load side

Oversupply category

Pollution degree

Dimensions

Clamping range (nominal / min. / max.)

mm²

Length x width x height

mm

Note

Ordering data

Connection system

Screw connection

Note

Screw connection

2.5 / 0.5 / 4

90 / 6.1 / 98

Type

MOS 24VDC/8-30VDC 2A

Qty.

1

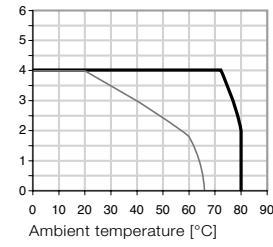
Order No.

8937970000

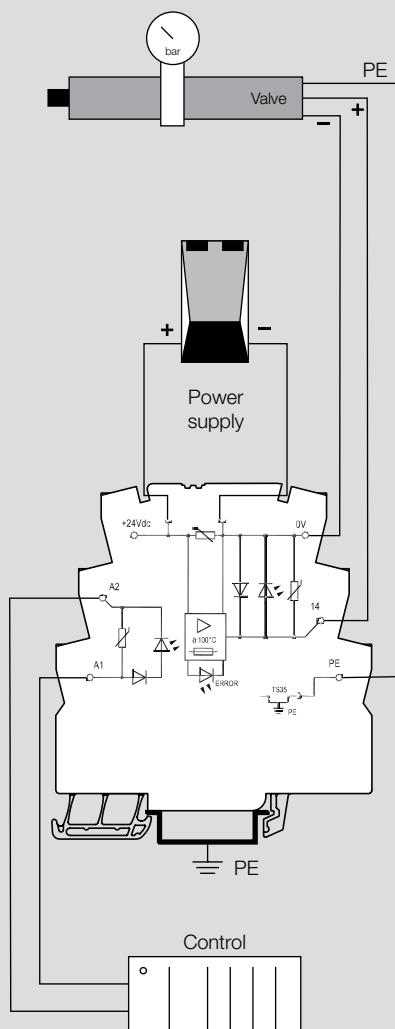
The solid-state relay **MICROOPTO ACTOR** has been especially designed as a switching amplifier for actuators up to 24 V DC and 2A with inductive loads such as solenoid valves and contactors. 3-wire actuators can be connected directly to the module.

This is short-circuit proof and protected against application-related transients and spikes by extensive protective circuitry.

MICROOPTO 2 A



Example: pneumatic valve



Accessories



Plug-in cross-connection

Type	No. of poles	Order No.
yellow		
ZQV 4N / 2 GE	2	1758250000
ZQV 4N / 3 GE	3	1762630000
ZQV 4N / 4 GE	4	1762620000
ZQV 4N / 10 GE	10	1758260000
ZQV 4N / 20 GE	20	1909020000
red		
ZQV 4N / 2 RT	2	1793950000
ZQV 4N / 3 RT	3	1793980000
ZQV 4N / 4 RT	4	1794010000
ZQV 4N / 10 RT	10	1794040000
ZQV 4N / 20 RT	20	1909150000
blue		
ZQV 4N / 2 BL	2	1793960000
ZQV 4N / 3 BL	3	1793990000
ZQV 4N / 4 BL	4	1794020000
ZQV 4N / 10 BL	10	1794050000
ZQV 4N / 20 BL	20	1909100000
black		
ZQV 4N / 2 SW	2	1793970000
ZQV 4N / 3 SW	3	1794000000
ZQV 4N / 4 SW	4	1794030000
ZQV 4N / 10 SW	10	1794060000
ZQV 4N / 20 SW	20	1909120000

Other accessories

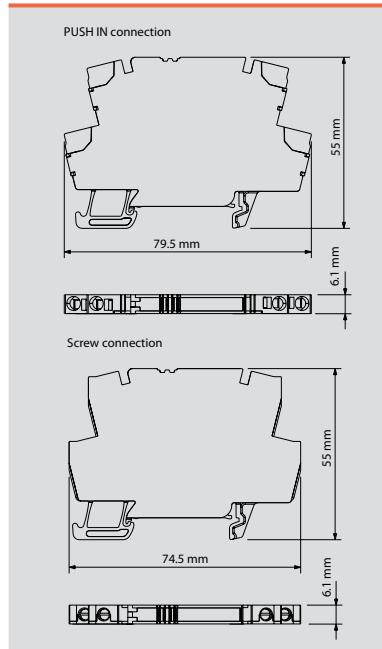
Type	Order No.
Supply terminals	
MOS SUPPLY	8973460000
MOS FEED THROUGH	8973450000
Markers	
WS 12/6	12 x 6 mm
LM MT 300 15/6 ge	484 labels/sheet
Labels, Lasermark	
SD 0.6 x 3.5 x 100	9008330000
Cross-connector for plugging into the clamping point	
QB 75/6.2/15	0535200000
Coloured insulating profile for QB	
ISPF QB75 black	0526700000
ISPF QB75 blue	0526780000
ISPF QB75 red	0526760000
End bracket	
WEW 35/2	1061210000

General data – TERMOPTO / MICROOPTO

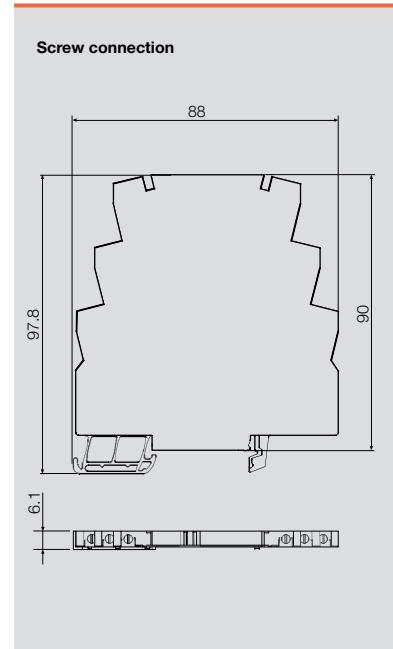
Technical data

Conductor	Screw-connection
Solid H07V-U	mm ² 0.5 ... 4.0
Stranded H07V-K	mm ² 0.5 ... 2.5
"f" with wire end ferrules to DIN 46228-1	mm ² 0.5 ... 1.5
"f" with wire end ferrules with plastic collar	mm ² 0.5 ... 1.5
Max. clamping range	mm ² 0.13 ... 4.0
Plug gauge to IEC 60947-1	size A 3
General technical data	
Nominal torque	Nm 0.6
Continuous current for 2-pole cross-connection	A 10
Continuous current for multi-pole cross-connection	A 10
Stripping length	mm 7
Ingress protection class	IP 20
Housing material	Wemid
UL 94 flammability rating	V-0
Nominal current	A 6
Nominal voltage	V 250

Dimensions: TERMOPTO



Dimensions: MICROOPTO



MC50 Solenoid Driver 10A

MC50 - Solenoid Driver 10A

- 10A @ 5-34Vdc inductive switch
- High Side High Current Power Switch
- Ultra compact 6mm wide 'Combifoot' housing suits TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Reverse polarity diode protection
- Input diode protection
- Bark EMF protected



Technical Data

Input

Input Voltage Range	10.5 to 28Vdc
Operating Current	5.0mA @ 24Vdc

Output

Type	High Side MOSFET Switch
Output Resistance (on state)	Less than 10mΩ
Nominal Switching Voltage	5 to 34Vdc
Maximum Continuous Current	10A inductive
Use with Fuse/Circuit Breaker (recommended)	15A (65V) Slow Blow, breaking capacity 150A min
Operate time (at nom. voltage)	1mS approx.
Release time (at nom. voltage)	1mS max.
Max. operating speed (50% mark space ratio)	100Hz (6000 operations per minute)

Isolation

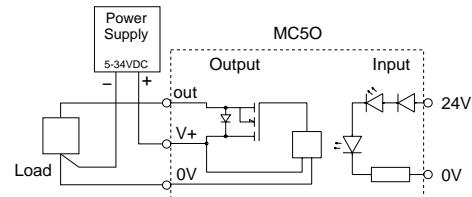
Surge Strength	4000V
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General

Terminal width	6mm
Width across rail	76mm
Height on rail	TS32 68mm
	TS35 x 7.5 63mm
	TS35 x 15 71mm
Operating temperature range	-40°C to +60°C
Conductor size	Solid 0.5 to 4.0mm ²
	Flexible 0.5 to 2.5mm ²
EMC / LVD	EN50081-1, EN50082-1 / EN61010-1

Note: It is recommended that a diode be fitted across output when correcting inductive loads

Installation



General

Warning: to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.
Design for IEC664 Installation Category II use.

Cleaning

Wipe only with a damp cloth (remove power before cleaning).

Location

To be installed in a metal enclosure.

Ordering Information

Ordering Information

Solenoid Driver 5-34 V, 10A	7901690001
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Accessories

End Plate	AP	7940005681
End Brackets	EW(TS35) EWK(TS32)	0383560000 0206160000

Cross Connection Parts

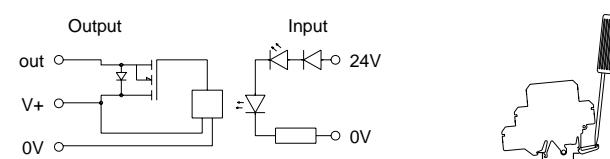
Insulated	2 pole 3 pole 4 pole	0482700000 0482800000 0482900000
Uninsulated	75 pole straight 75 pole angled	0535200000 0526400000

Mounting rail

TS32	0122800000
TS35 x 7.5	0383400000
TS35 x 15	0236400000

Circuit diagram

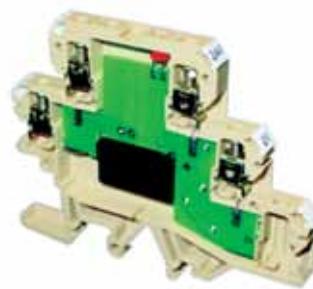
Mounting



MC50 Solenoid Driver 1A up to 200Vdc

MC50 - Solenoid Driver 1A up to 200Vdc

- 1A@5-200Vdc resistive & inductive switch
- High Voltage DC Switch
- Ultra compact 6mm wide 'Combifoot' housing suits TS32 & TS35
- 2500V isolation
- LED relay state indication
- Input diode protection



Technical Data

Input

Input Voltage Range	10.5 to 28Vdc
Operating Current	11.5mA @ 24Vdc

Output

Type	MOSFET Switch
Output Resistance (on state)	0.34 Ω
Nominal Switching Voltage	5 to 200Vdc
Maximum Continuous Current	1A resistive or inductive
Operate time (at nom. voltage)	1mS approx.
Release time (at nom. voltage)	0.1mS max.
Max. operating speed (50% mark space ratio)	1Hz (60 operations per minute)

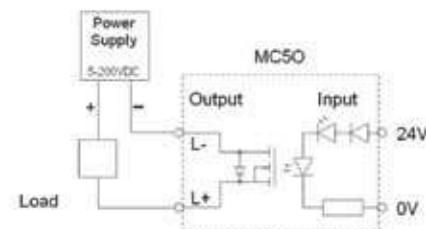
Isolation

Surge Strength	2500V
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General

Terminal width	6mm
Width across rail	76mm
Height on rail	TS32 68mm
	TS35 x 7.5 63mm
	TS35 x 15 71mm
Operating temperature range	-40°C to +60°C
Conductor size	Solid 0.5 to 4.0mm ²
	Flexible 0.5 to 2.5mm ²

Installation



General

Warning: to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.

Design for IEC664 Installation Category II use.

Cleaning

Wipe only with a damp cloth (remove power before cleaning).

Location

To be installed in a metal enclosure.

Ordering Information

Ordering Information

MC50 Solenoid Driver 1A 200 VDC	7901490001
---------------------------------	-------------------

Accessories

End Plate	AP	7940005681
End Brackets	EW(TS35) EWK(TS32)	0383560000 0206160000

Cross Connection Parts

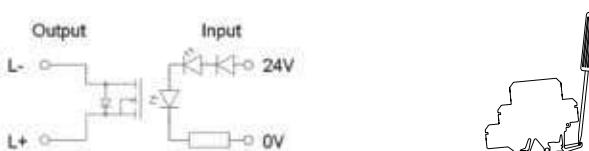
Insulated	2 pole 3 pole 4 pole	0482700000 0482800000 0482900000
Uninsulated	75 pole straight 75 pole angled	0535200000 0526400000

Mounting rail

TS32	0122800000
TS35 x 7.5	0383400000
TS35 x 15	0236400000

Circuit diagram

Mounting



MC50 - Dual Voltage

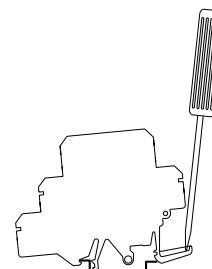
- Dual Input Voltage Solid State Relay
- Ultra compact 6mm wide 'Combifoot' housing suits TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Input diode protection



Technical Data

Input A Nominal Voltage (Input B nominal Voltage)	12Vdc (48Vdc)	24Vdc (48Vdc)	110Vac/dc (24Vdc)	5Vdc (12Vdc)
Nominal Operating Current (typical)	5mA (5mA)	5mA (5mA)	5mA (4mA)	6mA (7mA)
Input voltage variations	±10% (±10%)			
Protection	Reverse polarity diode on DC inputs only			
Output				
Type	Open Collector NPN Transistor			
Maximum Switching Current	250mA @ 60Vdc			
Voltage Drop at max. load current	<2V			
Switching Times: on A (B)	20µS (125µS)	40µS (700µS)	10mS (30µS)	20µS (25µS)
Switching Times: off A (B)	1.5mS (1.5mS)	30mS (30mS)	20mS (500µS)	250µS (250µS)
Max. operating speed (50% mark space ratio)	100Hz (100Hz)	20Hz (20Hz)	10Hz (100Hz)	100Hz (100Hz)
Isolation				
Surge Strength	4000V (1 min)			
General				
Terminal width	6mm			
Width across rail	76mm			
Height on rail	TS32	68mm		
	TS35 x 7.5	63mm		
	TS35 x 15	71mm		
Operating temperature range	-40°C to +60°C			
Conductor size	Solid	0.5 to 4.0mm ²		
	Flexible	0.5 to 2.5mm ²		

Installation



General

Warning: to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.

Design for IEC664 Installation Category II use.

Cleaning

Wipe only with a damp cloth (remove power before cleaning).

Location

To be installed in a metal enclosure.

Ordering Information

Ordering Information

MC50 12/24 VDC	7906270000
MC50 24/48 VDC	7906280000
MC50 24 VDC / 110 VAC	7906290000
MC50 5/12 VDC	7906300000

Accessories

End Plate	AP	7940005681
End Brackets	EW(TS35) EWK(TS32)	0383560000 0206160000

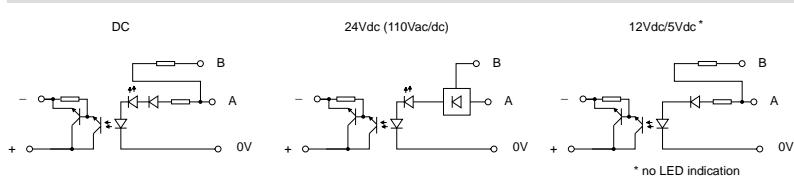
Cross Connection Parts

Insulated	2 pole 3 pole 4 pole	0482700000 0482800000 0482900000
Uninsulated	75 pole straight 75 pole angled	0535200000 0526400000

Mounting rail

TS32	0122800000
TS35 x 7.5	0383400000
TS35 x 15	0236400000

Circuit diagram



Notes

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