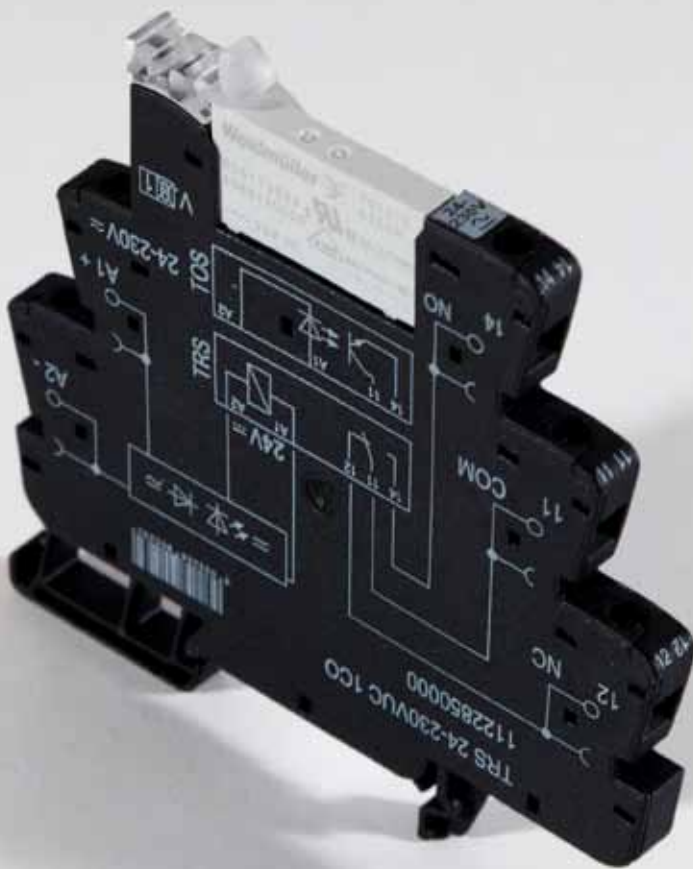


# Relays and Optos

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 Weidmüller and incorporates a number of new innovations from its already highly proven **MICROSERIES** slimline relay family.

Not only have Weidmüller'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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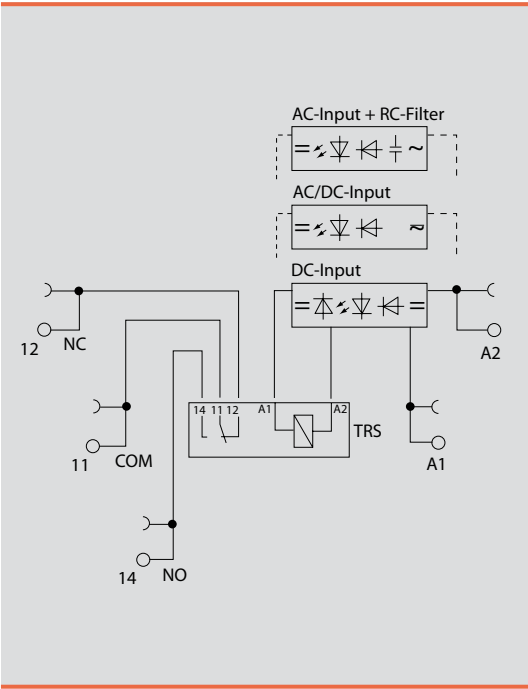
ACCESSORIES

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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 <sup>(1)</sup>
Min. switching voltage / current	5 V / 100 mA <sup>(2)</sup>
Min. mechanical lifetime	5x10 <sup>6</sup> <sup>(1)</sup>
Min. electrical lifetime	NO: 5x10 <sup>4</sup> ; NC: 3x10 <sup>4</sup> <sup>(1)</sup>
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)
Overvoltage category	III
Pollution degree	2
Clearage and creepage distance input / output	>= 5.5 mm
Total circuit to rail	4 k Veff / 1 min
Dimensions	
Clamping range	mm <sup>2</sup> 0.14...1.5 mm <sup>2</sup>
Height x length x width	mm 90 x 88 x 6.4
Note	<sup>(1)</sup> At resistive load <sup>(2)</sup> 10 V / 10 mA; 24 V / 1 mA <sup>(3)</sup> 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	23 mA @ 24 V DC / 4 mA @ 230 V AC (+/- 10 %)
Inuit 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) 1CO <b>1122850000</b>	TRS 24-230VUC (AC/DC) 1CO Au* <b>1123090000</b>
Tension clamp connection	TRZ 24-230VUC (AC/DC) 1CO <b>1122970000</b>	TRZ 24-230VUC (AC/DC) 1CO Au* <b>1123210000</b>

\*Gold (Au)

Note	Spare relay type RSS...024
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## Ordering data

Control side	5 V DC	12 V DC	24 V DC	24 V UC (AC/DC)	48 V UC (AC/DC)
Rated control voltage	5 V DC $\pm$ 20 %	12 V DC $\pm$ 20 %	24 V DC $\pm$ 20 %	24 V UC (AC/DC) $\pm$ 10 %	48 V UC (AC/DC) $\pm$ 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)	<b>1122740000</b>	<b>1122750000</b>	<b>1122770000</b>	<b>1122780000</b>	<b>1122790000</b>
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)	<b>1122860000</b>	<b>1122870000</b>	<b>1122880000</b>	<b>1122890000</b>	<b>1122900000</b>
AgNi 5uAu (Gold Plated)	TRZ 5VDC 1CO Au*	TRZ 12VDC 1CO Au*	TRZ 24VDC 1CO Au*	TRZ 24VUC* 1CO Au*	TRZ 48VUC* 1CO Au*
	<b>1123100000</b>	<b>1123110000</b>	<b>1123120000</b>	<b>1123130000</b>	<b>1123140000</b>
	*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

Control side	60 V UC (AC/DC)	120 V UC (AC/DC)	230 V UC (AC/DC)	120 V AC RC	230 V AC RC
Rated control voltage	60 V UC (AC/DC) $\pm$ 10 %	120 V UC (AC/DC) $\pm$ 10 %	230 V UC (AC/DC) $\pm$ 10 %	120 V AC $\pm$ 10 %	230 V AC $\pm$ 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

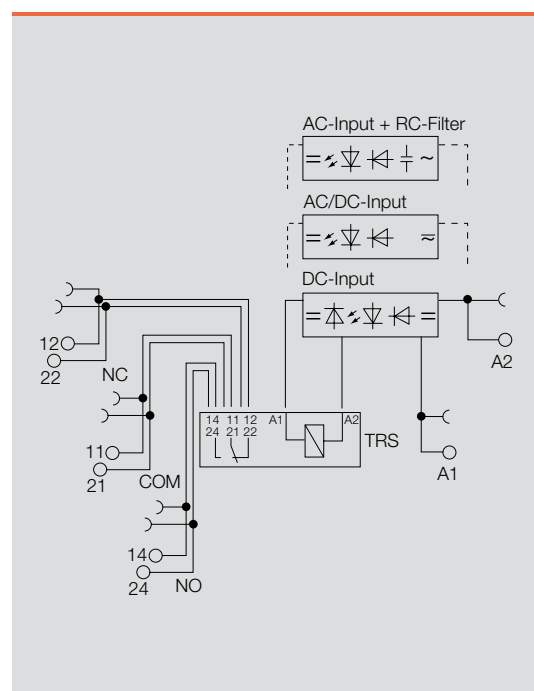
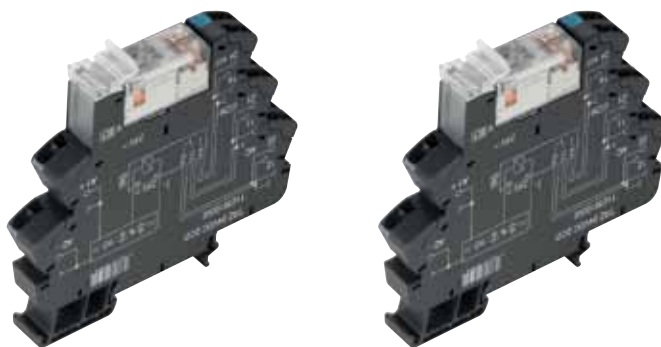
## Ordering data

Screw connection	TRS 60VUC* 1CO	TRS 120VUC* 1CO	TRS 230VUC* 1CO	TRS 120VACRC 1CO	TRS 230VACRC 1CO
Silver/Nickel (AgNi)	<b>1122800000</b>	<b>1122810000</b>	<b>1122820000</b>	<b>1122830000</b>	<b>1122840000</b>
AgNi 5uAu (Gold Plated)	TRS 60VUC* 1CO Au*	TRS 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)	<b>1122910000</b>	<b>1122920000</b>	<b>1122930000</b>	<b>1122940000</b>	<b>1122950000</b>
AgNi 5uAu (Gold Plated)	TRZ 60VUC* 1CO Au*	TRZ 120VUC* 1CO Au*	TRZ 230VUC* 1CO Au*	TRZ 120VACRC 1CO Au*	TRZ 230VACRC 1CO Au*
	<b>1123150000</b>	<b>1123040000</b>	<b>1123180000</b>	<b>1123190000</b>	<b>1123200000</b>
	*AC/DC (UC) / *Gold (Au)	*AC/DC (UC) / *Gold (Au)	*AC/DC (UC) / *Gold (Au)	*Gold (Au)	*Gold (Au)

## Note

Spare relay type RSS...060	Spare relay type RSS...060	Spare relay type RSS...060	Spare relay type RSS...060	Spare relay type RSS...060
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- 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 <sup>(3)</sup>
Max. switching voltage / current	250 V / 8A; 15A @ 4s <sup>(1)</sup>	250 V / 8A; 15A @ 4s <sup>(1)</sup>
Min. switching voltage / current	10 V / 100 mA <sup>(2)</sup>	1 V / 1 mA
Min. mechanical lifetime	30x10 <sup>6</sup> <sup>(1)</sup>	30x10 <sup>6</sup> <sup>(1)</sup>
Min. mechanical lifetime	NO: 5x10 <sup>4</sup> ; NC: 3x10 <sup>4</sup> <sup>(1)</sup>	NO: 5x10 <sup>4</sup> ; NC: 3x10 <sup>4</sup> <sup>(1)</sup>
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)	
Overvoltage category	III	
Pollution degree	2	
Clearage and creepage distance input / output	>= 5 mm	
Total circuit to rail	4kVeff / 1 min	
Dimensions		
Clamping range	mm <sup>2</sup>	0.14...1.5 mm <sup>2</sup>
Height x length x width	mm	90 x 88 x 12.8
Note		
<sup>(1)</sup> At resistive load <sup>(2)</sup> 10 V / 10 mA; 24 V / 1 mA		
<sup>(3)</sup> Au- plate operate up to 0.25 W		

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 <b>1123580000</b>	TRS 24-230VUC* 2CO Au* <b>1123820000</b>
Tension clamp connection	TRZ 24-230VUC (AC/DC) 2CO <b>1123700000</b>	TRZ 24-230VUC* 2CO Au* <b>1123940000</b>
		<b>*AC/DC (UC) / *Gold (Au)</b>

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Ordering data	5 V DC	12 V DC	24 V DC	24 V UC (AC/DC)	48 V UC (AC/DC)
<b>Control side</b>					
Rated control voltage	5 V DC $\pm 20\%$	12 V DC $\pm 20\%$	24 V DC $\pm 20\%$	24 V UC (AC/DC) $\pm 10\%$	48 V UC (AC/DC) $\pm 10\%$
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)	<b>1123470000</b>	<b>1123480000</b>	<b>1123490000</b>	<b>1123500000</b>	<b>1123510000</b>
	TRS 5VDC 2CO Au*	TRS 12VDC 2CO Au*	TRS 24VDC 2CO Au*	TRS 24VUC* 2CO Au*	TRS 48VUC* 2CO Au*
AgNi 5uAu (Gold Plated)	<b>1123710000</b>	<b>1123720000</b>	<b>1123730000</b>	<b>1123740000</b>	<b>1123750000</b>
Tension clamp connection	TRZ 5VDC 2CO	TRZ 12VDC 2CO	TRZ 24VDC 2CO	TRZ 24VUC* 2CO	TRZ 48VUC* 2CO
Silver/Nickel (AgNi)	<b>1123590000</b>	<b>1123600000</b>	<b>1123610000</b>	<b>1123620000</b>	<b>1123630000</b>
	TRZ 5VDC 2CO Au*	TRZ 12VDC 2CO Au*	TRZ 24VDC 2CO Au*	TRZ 24VUC* 2CO Au*	TRZ 48VUC* 2CO Au*
AgNi 5uAu (Gold Plated)	<b>1123830000</b>	<b>1123840000</b>	<b>1123850000</b>	<b>1123870000</b>	<b>1123880000</b>
	*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...024	Spare relay type RCL...024	Spare relay type RCL...048
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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
<b>Control side</b>					
Rated control voltage	60 V UC (AC/DC) $\pm 10\%$	120 V UC (AC/DC) $\pm 10\%$	230 V UC (AC/DC) $\pm 10\%$	120 V AC $\pm 10\%$	230 V AC $\pm 10\%$
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)	<b>1123520000</b>	<b>1123530000</b>	<b>1123540000</b>	<b>1123550000</b>	<b>1123570000</b>
	TRS 60VUC* 2CO Au*	TRS 120VUC* 2CO Au*	TRS 230VUC* 2CO Au*	TRS 120VACRC 2CO Au*	TRS 230VACRC 2CO Au*
AgNi 5uAu (Gold Plated)	<b>1123770000</b>	<b>1123780000</b>	<b>1123790000</b>	<b>1123800000</b>	<b>1123810000</b>
Tension clamp connection	TRZ 60VUC* 2CO	TRZ 120VUC* 2CO	TRZ 230VUC* 2CO	TRZ 120VACRC 2CO	TRZ 230VACRC 2CO
Silver/Nickel AgNi	<b>1123640000</b>	<b>1123650000</b>	<b>1123670000</b>	<b>1123680000</b>	<b>1123690000</b>
	TRZ 60VUC* 2CO Au*	TRZ 120VUC* 2CO Au*	TRZ 230VUC* 2CO Au*	TRZ 120VACRC 2CO Au*	TRZ 230VACRC 2CO Au*
AgNi 5uAu (Gold Plated)	<b>1123890000</b>	<b>1123900000</b>	<b>1123910000</b>	<b>1123920000</b>	<b>1123930000</b>
	*AC/DC (UC) / *Gold (Au)	*AC/DC (UC) / *Gold (Au)	*AC/DC (UC) / *Gold (Au)	*Gold (Au)	*Gold (Au)

Note	Spare relay type RCL...060	Spare relay type RCL...110	Spare relay type RCL...110	Spare relay type RCL...110	Spare relay type RCL...110
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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

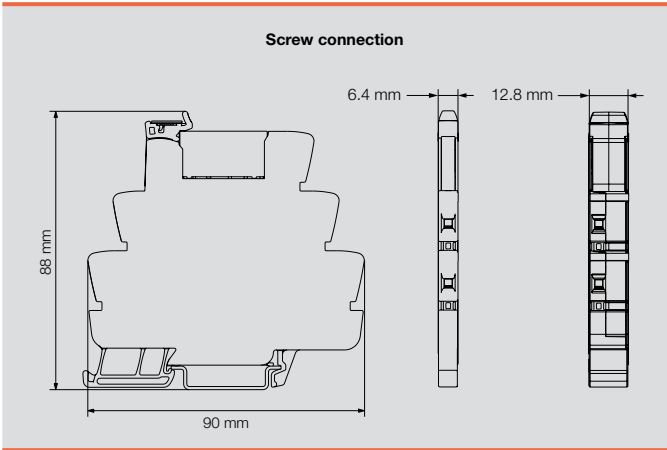
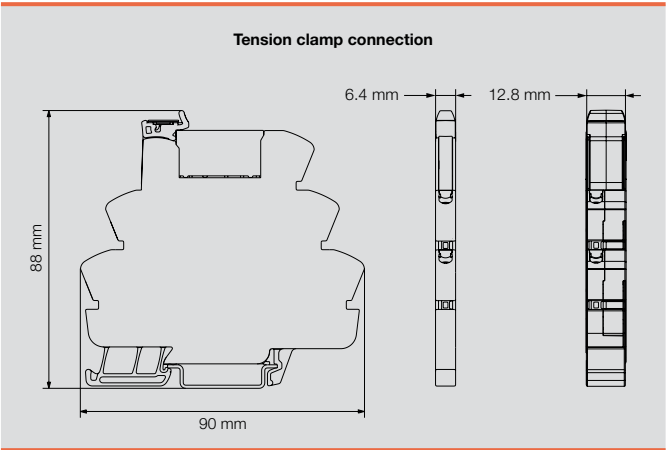
Additional accessory

	Type / Isolation plate		Order No.
	TW TXS/TXZ R3.2	Isolation plate 3.2 mm pitch	1240800000
	Marker		
	WS 10/6 MC Middle	10x6 mm	1818400000
	Screw driver		
	SDK PH0	Only Screw connection	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	mm²	0.14...2.5	0.14...1.5
Stranded H07V-K	mm²	0.14...1.5	0.14...1.5
... with wire end ferrule	mm²	0.25...1.5	0.14...1.5
... with wire end ferrule with plastic collar	mm²	0.25...1.5	0.14...1.5
2 conductor with same size			
Solid H07V-U	mm²	0.5...1.0	0.5...1.0
Stranded H07V-K	mm²	0.5...1.0	0.5...1.0
... with twin wire end ferrule H...D ZH	mm²	0.5...1.5	0.5...1.0
Clamping range AWG.../1	AWG	26...14	26...16
Clamping range AWG.../7	AWG	26...16	26...16
Clamping range AWG.../19	AWG	26...16	26...16
Plug gauge to IEC 60947-1	Size	A1 / B1	A1 / B1
General data			
Nominal torque	Nm	0.4	
Stripping length	mm	8	8
Continuous current ZQV 1.5N/R6.4	A	17.5; UL: 10	17.5; UL: 10
No. Contact durability relay / ZQV		10	10
Note			

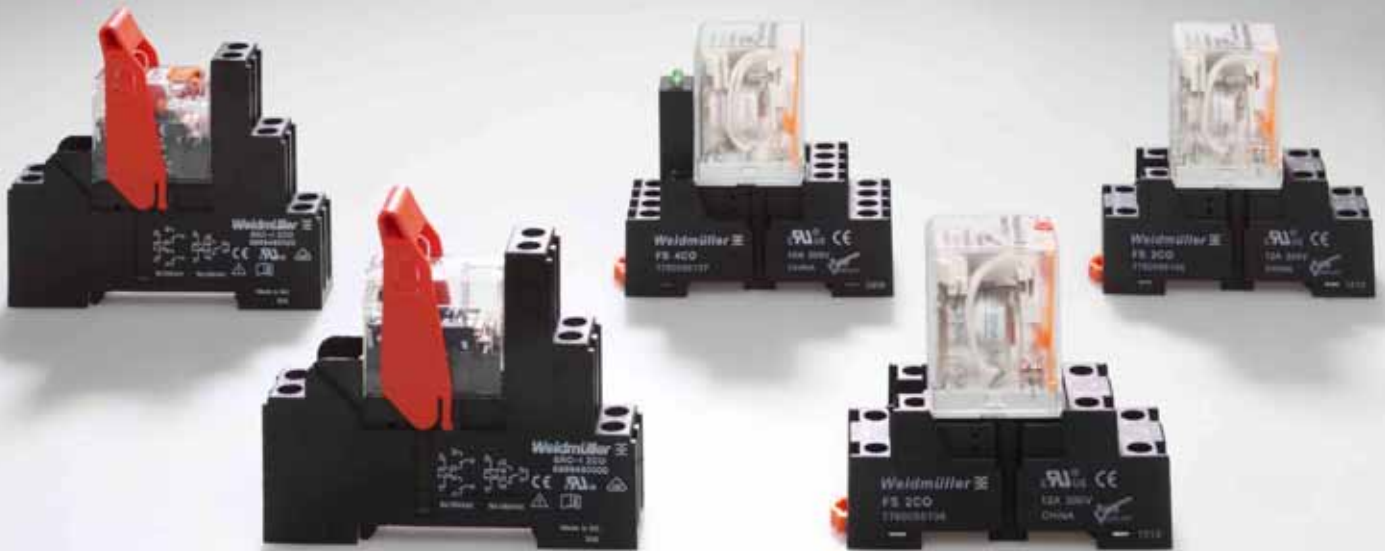
Dimensions





# POWER WITH PRECISION

**WEIDMÜLLER'S QUALITY RANGE IN  
ELECTROMECHANICAL RELAYS**



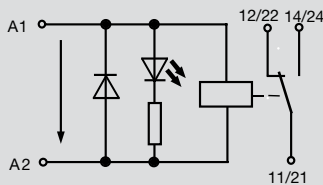
**Weidmüller's Industrial Relays provide users with excellent reliability and installation convenience. Whether you require space saving, high power or frequency, our wide range of relay modules provide the proper solution for all your industrial application needs.**

## RCI KIT with screw connection 1 CO

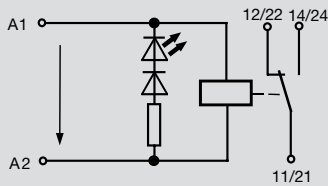
- Kit includes relay, base & hold down clip
- 4.000 VA switching capacity
- Stable plug-in connections
- LED (AC red / DC green) integrated in relay module
- Protective suppressor circuit for DC coil
- Optional test button with latching function and inspection window
- Identification of coils (AC red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



### DC-Version



### AC-Version



### Output

Switching voltage AC, max.	250 V
Continuous current	16 A
Contact material	AgNi 90/10
Mechanical service life	AC coil 5x10 <sup>5</sup> switching operations, DC coil 10x10 <sup>5</sup> 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

Clamping range (nominal / min. / max.)	mm <sup>2</sup> 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

Input	24 V DC 1CO	24 V AC 1CO	115 V AC 1CO	230 V AC 1CO
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 ±10%	350 Ω ±10%	8100 Ω ±15%	32500 Ω ±15%

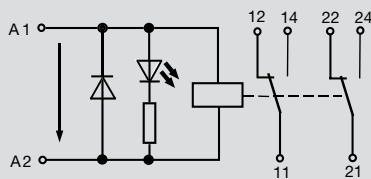
Ordering data		24 V DC 1CO		24 V AC 1CO		115 V AC 1CO		230 V AC 1CO	
<b>Relay module with socket</b>									
with test button	Type	RCIKIT 24VDC 1CO LD/PB		RCIKIT 24VAC 1CO LD/PB		RCIKIT 115VAC 1CO LD/PB		RCIKIT 230VAC 1CO LD/PB	
	Order No.	8881580000		8881590000		8897060000		8881600000	
without test button	Type	RCIKIT 24VDC 1CO LED		RCIKIT 24VAC 1CO LED		RCIKIT 115VAC 1CO LD		RCIKIT 230VAC 1CO LED	
	Order No.	8871000000		8871010000		8897090000		8871020000	
<b>Ordering data</b>									
	Type	w. test button	w.o. test button	w. test button	w.o. test button	w. test button	w.o. test button	w. test button	w.o. test button
	Order No.	RCI374AC4	RCI314AC4	RCI374R24	RCI314R24	RCI374S15	RCI314S15	RCI374T30	RCI314T30
		8870250000	8870100000	8870280000	8870130000	8870290000	8870140000	8870300000	8870150000
<b>Note</b>									

## RCI KIT with screw connection 2 CO

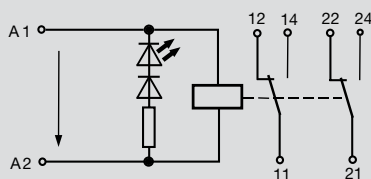
- Kit includes relay, base & hold down clip
- 4.000 VA switching capacity
- Stable plug-in connections
- LED (AC red / DC green) integrated in relay module
- Protective suppressor circuit for DC coil
- Optional test button with latching function and inspection window
- Identification of coils (AC red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



### DC-Version



### AC-Version



Output	
Switching voltage AC, max.	250 V
Continuous current	8 A / 1 contact
Contact material	AgNi 90/10
Mechanical service life	AC coil 5x10 <sup>5</sup> switching operations, DC coil 10x10 <sup>5</sup> 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
Overvoltage category	III
Pollution degree	3
Protective separation acc. to VDE 0106 part 101	Yes

Dimensions	Screw connection
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 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

Input	24 V DC 2CO	24 V AC 2CO	115 V AC 2CO	230 V AC 2CO
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 ±10%	350 Ω ±10%	8100 Ω ±15%	32500 Ω ±15%

Ordering data		24 V DC 2CO		24 V AC 2CO		115 V AC 2CO		230 V AC 2CO	
Relay module with socket		RCIKIT 24VDC 2CO LD/PB		RCIKIT 24VAC 2CO LD/PB		RCIKIT 115VAC 2CO LD/PB		RCIKIT 230VAC 2CO LD/PB	
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.	8871030000		8871040000		8897100000		8871050000	
Ordering data		w. test button		w.o. test button		w. test button		w.o. test button	
	Type	RCI484AC4		RCI424AC4		RCI484S15		RCI424S15	
	Order No.	8870320000		8870180000		8870350000		8870210000	
						8870360000		8870220000	
								8870370000	
								8870230000	
Note									

## RCI relay module

### 1 CO AC/DC coil

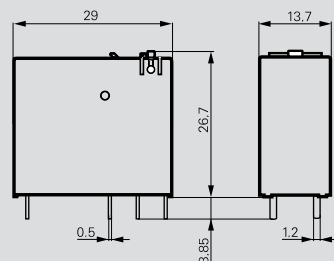
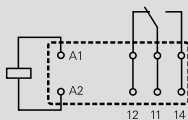
- 4.000 VA switching capacity
- Stable plug-in connections
- Optional test button with latching function and inspection window
- Optional status indicator (AC red/ DC green)
- Optional protective suppressor circuit
- Identification of coils (AC red / DC blue)



#### 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 $5 \times 10^5$ switching operations, DC coil $10 \times 10^5$ switching operations
Sparkover time / Drop-out time	7 ms / 3 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
Overvoltage category	III
Pollution severity	3
Protective separation acc. to VDE 0106 part 101	Yes

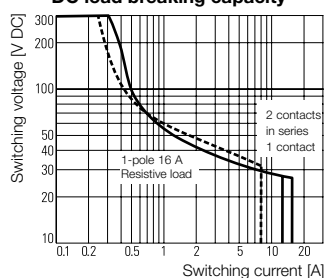
#### Dimensions

#### Plug-in connection

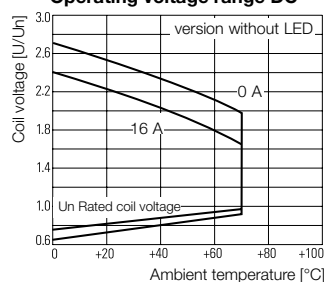
Length x width x height	mm	29 / 13.7 / x
Note		x = 25.5 without test button / 26.7 with test button

## Applications

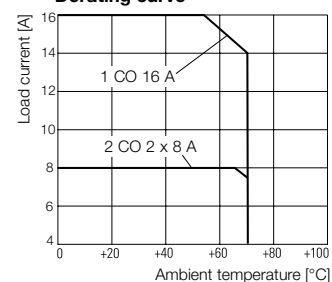
#### DC load breaking capacity



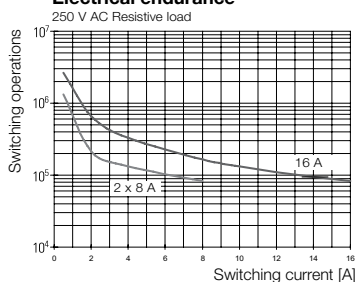
#### Operating voltage range DC



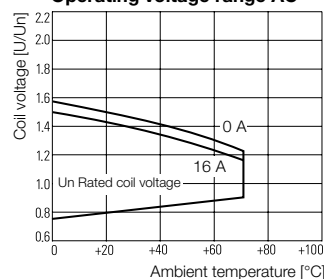
#### Derating curve



#### Electrical endurance



#### Operating voltage range AC



# 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 $\Omega$ $\pm$ 10%	1440 $\Omega$ $\pm$ 10%	5520 $\Omega$ $\pm$ 10%	26600 $\Omega$ $\pm$ 12%

Ordering data	12 V DC 1CO	24 V DC 1CO	48 V DC 1CO	110 V DC 1CO
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				
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## 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 $\Omega$ $\pm$ 10%	8100 $\Omega$ $\pm$ 15%	32500 $\Omega$ $\pm$ 15%

Ordering data	24 V AC 1CO	115 V AC 1CO	230 V AC 1CO
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			
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## RCI relay module 2 CO AC/DC coil

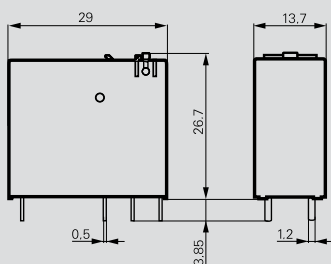
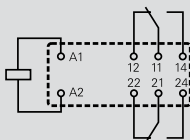
- 2.000 VA switching capacity
- Stable plug-in connections
- Optional test button with latching function and inspection window
- Optional status indicator (AC red / DC green)
- Optional protective suppressor circuit
- Identification of coils (AC red / DC blue)



### Circuit diagram

View on solder pins  
dimensions in mm

2 C/O changeover contacts



### Output

Switching voltage AC, max.	250 V
Continuous current	8 A / 1 contact
Contact material	AgNi 90/10
Mechanical service life	AC coil 5x10 <sup>5</sup> switching operations, DC coil 10x10 <sup>5</sup> 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
Overvoltage category	III
Pollution degree	3
Protective separation acc. to VDE 0106 part 101	Yes

### Dimensions

Length x width x height

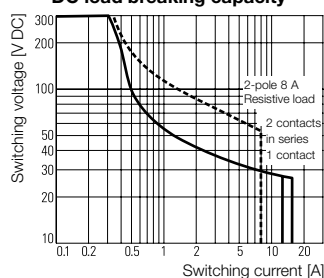
mm 29 / 13.7 / x

### Note

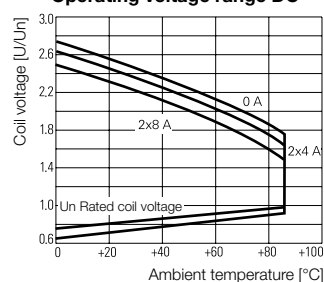
x = 25.5 without test button / 26.7 with test button

## Applications

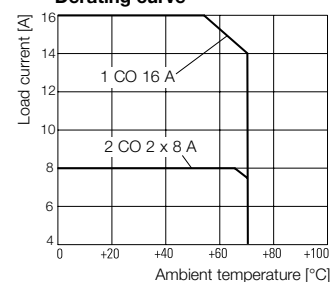
### DC load breaking capacity



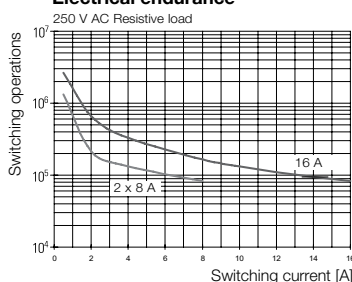
### Operating voltage range DC



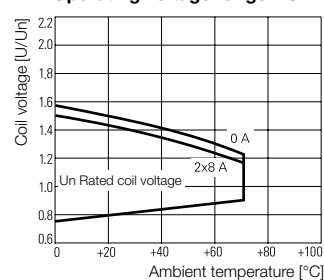
### Derating curve



### Electrical endurance



### Operating voltage range AC



# RIDERSERIES - Relay modules

## RCI relay module

### 2 CO AC/DC coil

#### Type code

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
Rated control voltage
DC Response/dropout Voltage
Power rating
Rated current DC
Coil resistance

### 12 V DC 2CO

12 V DC
8.4 V / 1.2 V
400 mW
33.3 mA
360 $\Omega$ $\pm$ 10%

### 24 V DC 2CO

24 V DC
16.8 V / 2.4 V
400 mW
16.7 mA
1440 $\Omega$ $\pm$ 10%

### 48 V DC 2CO

48 V DC
33.6 V / 4.8 V
400 mW
8.7 mA
5520 $\Omega$ $\pm$ 10%

### 110 V DC 2CO

110 V DC
77 V / 11 V
400 mW
4.1 mA
26600 $\Omega$ $\pm$ 12%

## Ordering data

Relay module
Standard Type
Order No.
with test button Type
Order No.
with LED + freewheel diode Type
Order No.
with test button + LED Type
+ freewheel diode Order No.

RCI424012

8869870000

RCI484012

8870020000

RCI424AB2

8870170000

RCI484AB2

8870310000

RCI424024

8869890000

RCI484024

8870030000

RCI424AC4

8870180000

RCI484AC4

8870320000

RCI424048

8869900000

RCI484048

8870040000

RCI424AE8

8870190000

RCI484AE8

8870330000

RCI424110

8869910000

RCI484110

8870050000

RCI424BB0

8870200000

RCI484BB0

8870340000

## Note

## Ordering data

Input
Rated control voltage
AC Response/dropout Voltage
Power rating
Rated current AC
Coil resistance

### 24 V AC 2CO

24 V AC
18 V / 3.6 V
0.75 VA
31.6 mA
350 $\Omega$ $\pm$ 10%

### 115 V AC 2CO

115 V AC
86.3 V / 17.3 V
0.75 VA
6.6 mA
8100 $\Omega$ $\pm$ 15%

### 230 V AC 2CO

230 V AC
172.5 V / 34.5 V
0.75 VA
3.2 mA
32500 $\Omega$ $\pm$ 15%

## Ordering data

Relay module
Standard Type
Order No.
with test button Type
Order No.
with LED Type
Order No.
with test button + LED Type
Order No.

RCI424524

8869920000

RCI484524

8870060000

RCI424R24

8870210000

RCI484R24

8870350000

RCI424615

8869930000

RCI484615

8870070000

RCI424S15

8870220000

RCI484S15

8870360000

RCI424730

8869940000

RCI484730

8870080000

RCI424T30

8870230000

RCI484T30

8870370000

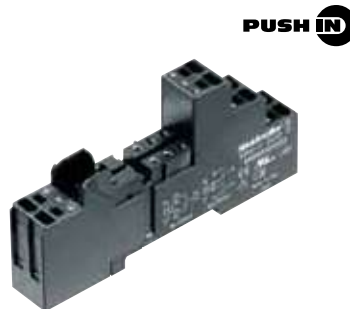
## Note



## Accessories for RCI relay modules, 1 CO

## Plug-in module with PUSH IN connection

## Plug-in module with screw connection



### Technical data

Rated current
Rated voltage
Dielectric strength of coil contacts
Ambient temperature (operational)
Protection class (IEC 61810)
Connection cross-section
- Solid-core wire
- Stranded wire
- with ferrule
Rated torque acc. to IEC 61984 for screw connection

2 x 12 A*
240 V AC
4000 V <sub>eff</sub>
-25 °C...+85 °C
IP20
2 x 1.5 mm <sup>2</sup>
2 x 1.5 mm <sup>2</sup>
2 x 1.0 mm <sup>2</sup>

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

2 x 12 A*
240 V AC
> 3000 V <sub>eff</sub>
-25 °C...+85 °C
IP20
2 x 2.5 mm <sup>2</sup>
2 x 2.5 mm <sup>2</sup>
2 x 1.5 mm <sup>2</sup>
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.



### Ordering data

Description
Plug-in module, snaps onto TS35 DIN mounting rail, 2-pole

Type	Order No.
SRC-I 2CO P	8869500000

Type	Order No.
SRC-I 2CO	8869490000

### Accessories

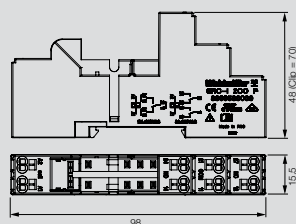
Description
Plastic retaining clip
Metal retaining clip
Label
MultiCard 6x15 mm
 Cross-connector for PUSH IN base, 2-pole, 12 A
 Cross-connector for screw base, 8-pole

Type	Order No.
SRC-I CLIP HP	8869510000
SRC-I CLIP HM RCI	1132090000
SRC-I MARK	8869530000
ESG 6/15 K MC NEUTR. WS	1880100000
SRC-I QV	8870840000

Type	Order No.
SRC-I CLIP HP	8869510000
SRC-I CLIP HM RCI	1132090000
SRC-I MARK	8869530000
ESG 6/15 K MC NEUTR. WS	1880100000
SRC-I QV S	1132070000

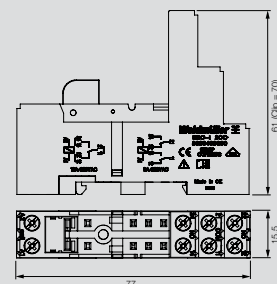
### Dimensions

SRC-I 2 CO P



### Dimensions

SRC-I 2 CO



Dimensions in mm

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

<b>Description</b>
Free Wheel diode 1N4007
Resistor 100 k $\Omega$ 1 Watt
RC element 6 ... 60 V AC; 470 $\Omega$ / 220 nF
RC element 110 ... 230 V AC; 4,7 $\Omega$ / 10 nF
Varistor protection 24 V; S07K30
Varistor protection 110 V; S07K130
Varistor protection 230 V; S07K275
<b>LED</b>
LED 6 ... 24 V DC with free wheel diode
LED 24 ... 60 V DC with free wheel diode
LED 110 ... 230 V DC with free wheel diode
LED 6 ... 24 V DC / V AC
LED 24 ... 60 V DC / V AC
LED 110 ... 230 V DC / V AC

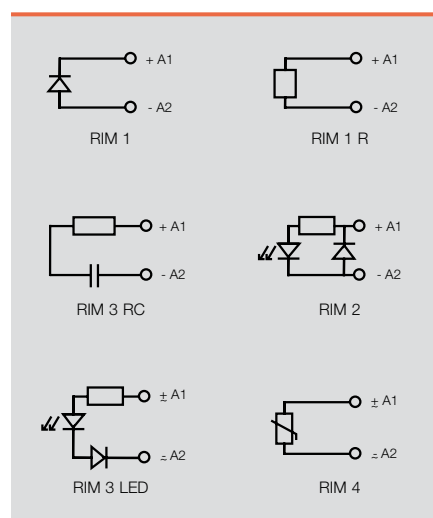
Type	Order No.	Order No.
RIM-I 1 6/230V	8869580000	
RIM-I 1 R 110/230V	8870830000	
RIM-I 3 6/60VAC	8869770000	
RIM-I 3 110/230VAC	8869790000	
RIM-I 4 24VUC*	8869710000	
RIM-I 4 110VUC*	8869730000	
RIM-I 4 230VUC*	8869750000	
	red	green
RIM-I 2 6/24VDC	8869590000	8869600000
RIM-I 2 24/60VDC	8869670000	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

for RCL relay modules

Nominal current	1-pole
Nominal current	2-pole
Nominal voltage	
Ambient temperature (operational)	
Approvals	

Description
Plug-in base with PCB connections, pinning 3.5 mm
Plug-in base with PCB connections, pinning 5 mm
Accessory: metal retaining clip, 15.7 mm high
Accessory: metal retaining clip, 25.5 mm high

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



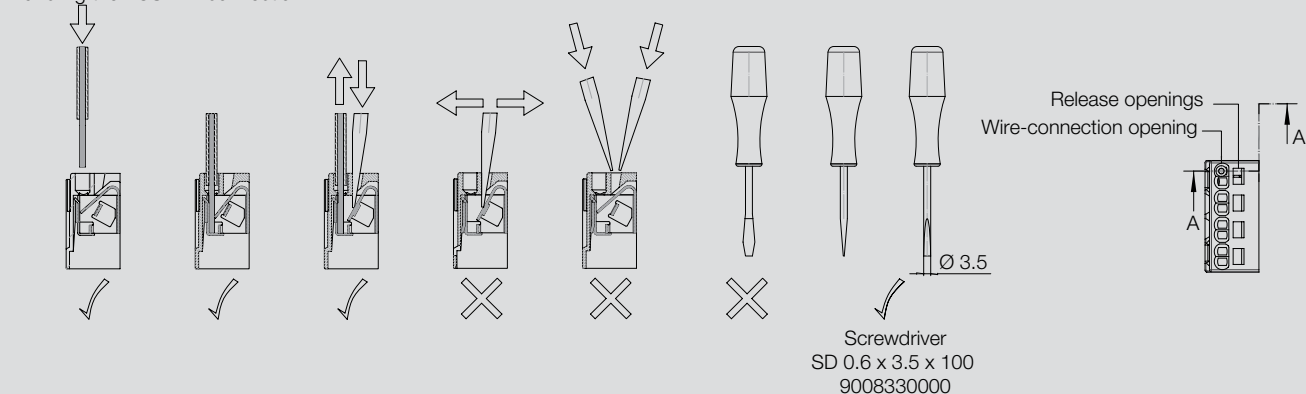
Technical drawings of the SRC 2CO PCB, including front, side, and top views with dimensions.

**Front View:** Shows a rectangular board with a total height of 31.0 mm and a width of 12.7 mm. It features a central circular feature and several smaller rectangular features.

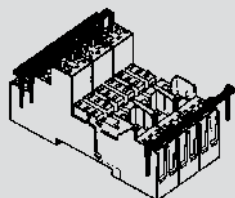
**Side View:** Shows the profile of the board with a total height of 10.8 mm. It includes dimensions for the base (4.8 mm), the main body (4.8 mm), and the total width (9.0 mm).

**Top View:** Shows a grid pattern with dimensions 10.8 mm by 9.0 mm. It includes a dimension of 10.8 mm for the height of the main body and a dimension of 9.0 mm for the width of the base. A circular feature is labeled with a diameter of  $\varnothing 15$ .

## Handling the PUSH IN connection

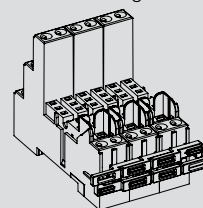


### Cross-connector mounting for PUSH IN base



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



## 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

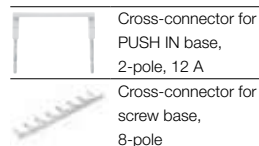
Rated current	2 x 12 A	2 x 12 A	2 x 12 A
Rated voltage	240 V AC	240 V AC	240 V AC
Dielectric strength of coil contacts	4000 V <sub>eff</sub>	> 3000 V <sub>eff</sub>	> 3000 V <sub>eff</sub>
Ambient temperature (operational)	-25 °C...+85 °C	-25 °C...+85 °C	-25 °C...+85 °C
Protection class (IEC 61810)	IP20	IP20	IP20
Stripping length	12 mm	8 mm	8 mm
Connection cross-section			
- Solid-core wire	1 x 1.5 mm <sup>2</sup> / 2 x 1.0 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>
- Stranded wire	1 x 1.5 mm <sup>2</sup> / 2 x 1.0 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>	2 x 2.5 mm <sup>2</sup>
- with ferrule	1 x 1.0 mm <sup>2</sup> / 2 x 0.75 mm <sup>2</sup>	2 x 1.5 mm <sup>2</sup>	2 x 1.5 mm <sup>2</sup>
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

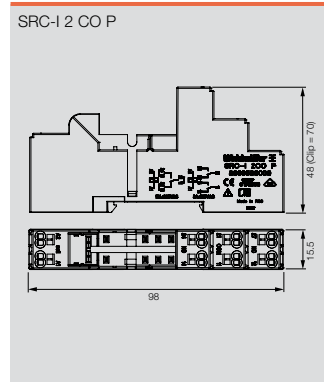
Description	Type	Order No.	Type	Order No.	Type	Order No.
Plug-in module, snaps onto TS35 DIN mounting rail, 2-pole	SRC-I 2CO P	8869500000	SRC-I 2CO	8869490000	SRC-I 2CO N	8869480000

### Accessories

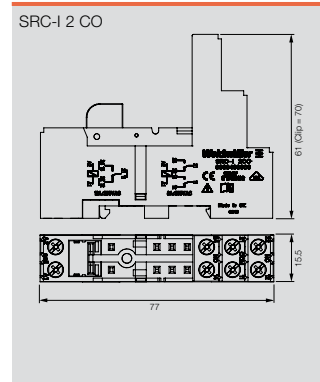
Description	Type	Order No.	Type	Order No.	Type	Order No.
Plastic retaining clip	SRC-I CLIP HP	8869510000	SRC-I CLIP HP	8869510000	SRC-I CLIP HP	8869510000
Metal retaining clip	SRC-I CLIP HM RCI	1132090000	SRC-I CLIP HM RCI	1132090000	SRC-I CLIP HM RCI	1132090000
Label	SRC-I MARK	8869530000	SRC-I MARK	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				
			SRC-I QV S	1132070000	SRC-I QV S	1132070000



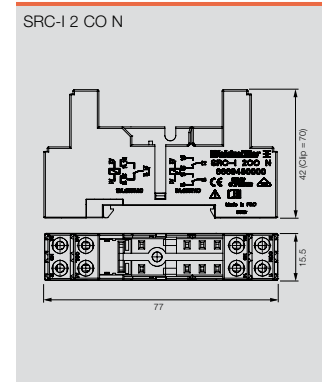
### Dimensions



### Dimensions



### Dimensions



Dimensions in mm

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

<b>Description</b>
Free Wheel diode 1N4007
Resistor 100 k $\Omega$ 1 Watt
RC element 6 ... 60 V AC; 470 $\Omega$ / 220 nF
RC element 110 ... 230 V AC; 4,7 $\Omega$ / 10 nF
Varistor protection 24 V; S07K30
Varistor protection 110 V; S07K130
Varistor protection 230 V; S07K275
<b>LED</b>
LED 6 ... 24 V DC with free wheel diode
LED 24 ... 60 V DC with free wheel diode
LED 110 ... 230 V DC with free wheel diode
LED 6 ... 24 V DC / V AC
LED 24 ... 60 V DC / V AC
LED 110 ... 230 V DC / V AC

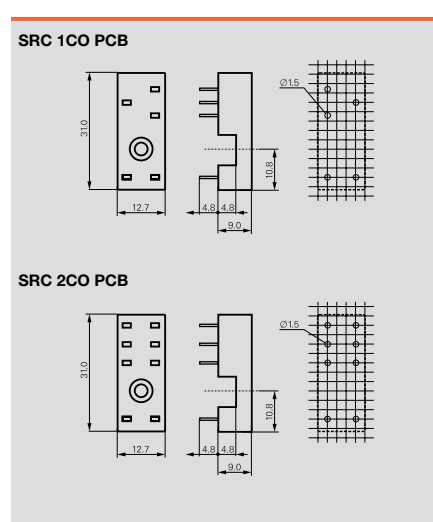
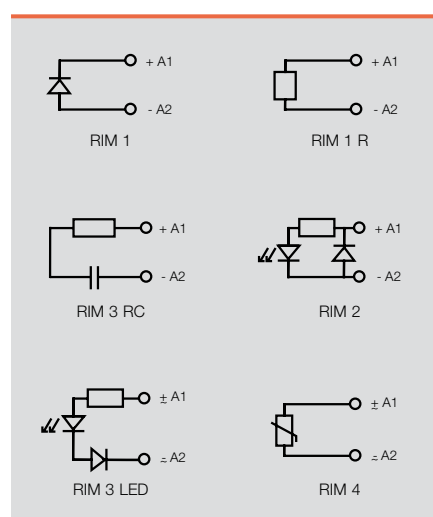
Type	Order No.	Order No.
RIM-I 1 6/230V	8869580000	
RIM-I 1 R 110/230V	8870830000	
RIM-I 3 6/60VAC	8869770000	
RIM-I 3 110/230VAC	8869790000	
RIM-I 4 24VUC*	8869710000	
RIM-I 4 110VUC*	8869730000	
RIM-I 4 230VUC*	8869750000	
	red	green
RIM-I 2 6/24VDC	8869590000	8869600000
RIM-I 2 24/60VDC	8869670000	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

for RCL relay modules

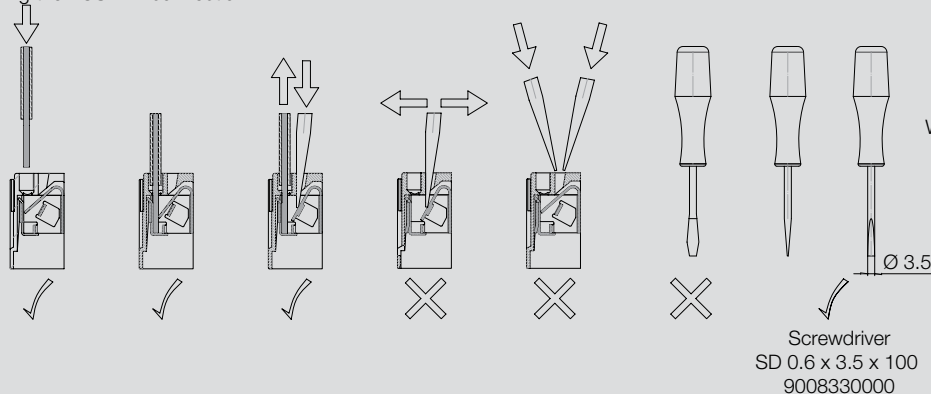
Nominal current	1-pole
Nominal current	2-pole
Nominal voltage	
Ambient temperature (operational)	
Approvals	

Description
Plug-in base with PCB connections, pinning 3.5 mm
Plug-in base with PCB connections, pinning 5 mm
Accessory: metal retaining clip, 15.7 mm high
Accessory: metal retaining clip, 25.5 mm high

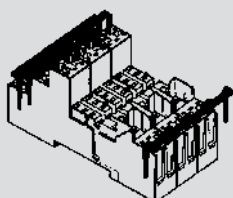
Type	Order No.
SRC 1CO PCB	8690860000
SRC 2CO PCB	8690850000
SRC CLIP LM	8693810000
SRC CLIP HM	8692620000



## Handling the PUSH IN connection

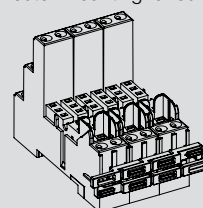


### Cross-connector mounting for PUSH IN base



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



### LED & Mechanical Indication

For easily identified status indication



### Integrated Test Lever

Simplifies fault finding and commissioning



### 270um Silver Alloy Contacts

For increased switching range, durability and reliability



### Hardened Extra Thick Pins

Prevents bending of pins during insertion and extraction

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

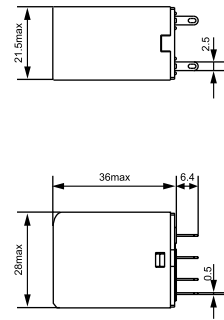


Weidmüller's addition of the DRL plug-in relay range, ensures users will be able to find a relay suitable for any application within the Weidmüller range. With the comfort of proven quality, reliability & installation convenience.

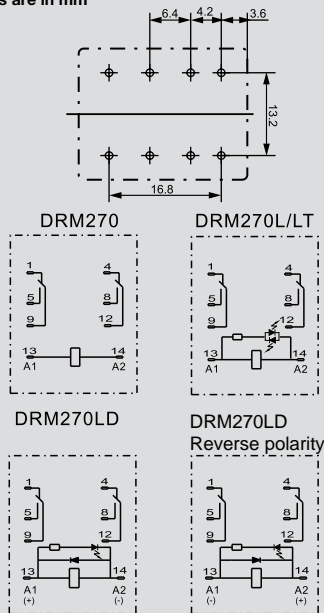
- Plug in 2 Pole (DPDT) or 4 Pole (4PDT)
- Led Indication & Mechanical Flag
- Strong Industrial Pinning (In commonly found arrangements)
- 10A Contact Rating (DPDT & 4PDT)
- Large Range of coil voltages
- Plug-in Expansion Modules Available

## DRM 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   



**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 <sup>4</sup> (1800 Ops/h) / > 2×10 <sup>7</sup> (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)

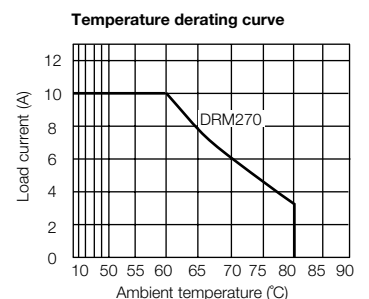
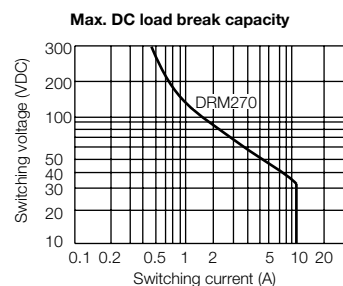
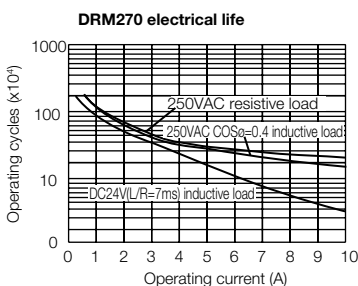
### Input

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





## 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	24 V AC 2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO	
<b>Input</b>					
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
	<b>Order No.</b>	<b>7760056055</b>	<b>7760056056</b>	<b>7760056057</b>	<b>7760056058</b>
With LED	Type	DRM270524L	DRM270548L	DRM270615L	DRM270730L
	<b>Order No.</b>	<b>7760056064</b>	<b>7760056065</b>	<b>7760056066</b>	<b>7760056067</b>
With LED and test lever	Type	DRM270524LT	DRM270548LT	DRM270615LT	DRM270730LT
	<b>Order No.</b>	<b>7760056073</b>	<b>7760056074</b>	<b>7760056075</b>	<b>7760056076</b>
With LED, gold plated contact	Type				DRM270730L Au
	<b>Order No.</b>				<b>7760056184</b>
With LED and test lever, gold plated contact	Type				DRM270730LT Au
	<b>Order No.</b>				<b>7760056186</b>
<b>Note</b>					




Ordering information	12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO	220 V DC 2CO
<b>Input</b>					
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

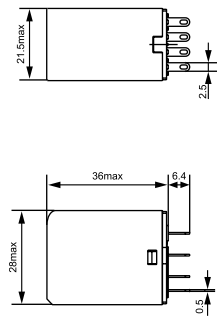
Ordering information					
<b>Relay</b>					
Standard	Type	DRM270012	DRM270024	DRM270048	DRM270110
	<b>Order No.</b>	<b>7760056050</b>	<b>7760056051</b>	<b>7760056052</b>	<b>7760056053</b>
With LED	Type	DRM270012L	DRM270024L	DRM270048L	DRM270110L
	<b>Order No.</b>	<b>7760056059</b>	<b>7760056060</b>	<b>7760056061</b>	<b>7760056062</b>
With LED and test lever	Type	DRM270012LT	DRM270024LT	DRM270048LT	DRM270110LT
	<b>Order No.</b>	<b>7760056068</b>	<b>7760056069</b>	<b>7760056070</b>	<b>7760056071</b>
With LED and suppressor diode	Type		DRM270024LD		
	<b>Order No.</b>		<b>7760056077</b>		
With LED, gold plated contact	Type		DRM270024L Au		
	<b>Order No.</b>		<b>7760056183</b>		
With LED and test lever, gold plated contact	Type		DRM270024LT Au		
	<b>Order No.</b>		<b>7760056185</b>		

\*For bases & other accessories please go to page 44

## DRM 570 Relay

### 4 change over contacts AC/DC coil

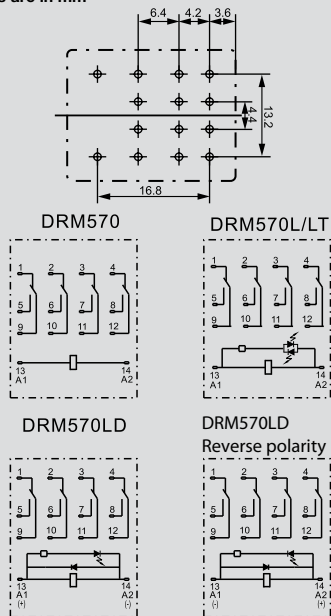
- Small size with high sensitivity
- Reasonable structure with wide usage
- Various types available
- Approvals with UL/CSA   



#### 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 <sup>4</sup> (1800 Ops/h) / > 2×10 <sup>7</sup> (18000 Ops/h)
Response / dropout delay at rated voltage	≤ 20 ms / ≤ 20 ms
Initial voltage between homopolar contacts / heteropolar contacts / contact and coil	2000VAC/1min / 1000VAC/1min / 2000VAC/1min (leakage current: 1mA)

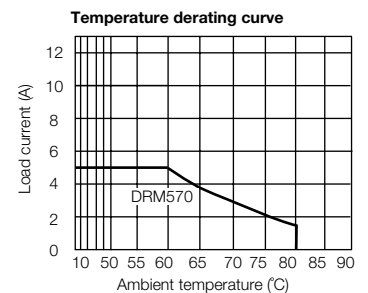
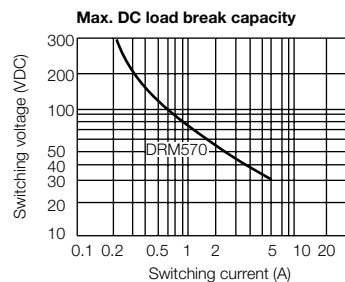
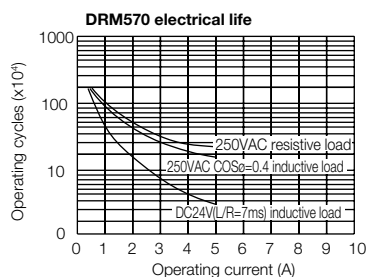
#### Input

Response voltage @ 25°C	DC: ≥ 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



## DRM Auxiliary / Signal Relay

### DRM 570 Relay 4 change over contacts AC/DC coil

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					

Ordering information	24 V AC 4CO	48 V AC 4CO	115 V AC 4CO	230 V AC 4CO	
<b>Input</b>					
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%	4,340Ω ±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)	

Ordering information					
Standard	Type	DRM570524	DRM570548	DRM570615	DRM570730
	<b>Order No.</b>	<b>7760056083</b>	<b>7760056084</b>	<b>7760056085</b>	<b>7760056086</b>
With LED	Type	DRM570524L	DRM570548L	DRM570615L	DRM570730L
	<b>Order No.</b>	<b>7760056092</b>	<b>7760056093</b>	<b>7760056094</b>	<b>7760056095</b>
With LED and test lever	Type	DRM570524LT	DRM570548LT	DRM570615LT	DRM570730LT
	<b>Order No.</b>	<b>7760056101</b>	<b>7760056102</b>	<b>7760056103</b>	<b>7760056104</b>
With LED, gold plated contact	Type				DRM570730L Au
	<b>Order No.</b>				<b>7760056188</b>
With LED and test lever, gold plated contact	Type				DRM570730LT Au
	<b>Order No.</b>				<b>7760056190</b>
<b>Note</b>					



Ordering information	12 V DC 4CO	24 V DC 4CO	48 V DC 4CO	110 V DC 4CO	220 V DC 4CO
<b>Input</b>					
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

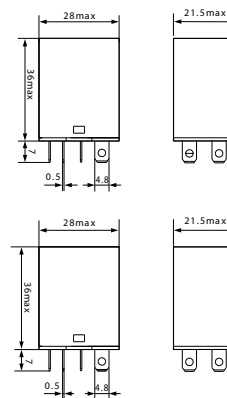
Ordering information					
Standard	Type	DRM570012	DRM570024	DRM570048	DRM570110
	<b>Order No.</b>	<b>7760056078</b>	<b>7760056079</b>	<b>7760056080</b>	<b>7760056081</b>
With LED	Type	DRM570012L	DRM570024L	DRM570048L	DRM570110L
	<b>Order No.</b>	<b>7760056087</b>	<b>7760056088</b>	<b>7760056089</b>	<b>7760056090</b>
With LED and test lever	Type	DRM570012LT	DRM570024LT	DRM570048LT	DRM570110LT
	<b>Order No.</b>	<b>7760056096</b>	<b>7760056097</b>	<b>7760056098</b>	<b>7760056099</b>
With LED and suppressor diode	Type		DRM570024LD		
	<b>Order No.</b>		<b>7760056105</b>		
With LED, gold plated contact	Type		DRM570024L Au		
	<b>Order No.</b>		<b>7760056187</b>		
With LED and test lever, gold plated contact	Type		DRM570024LT Au		
	<b>Order No.</b>		<b>7760056189</b>		

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\*For bases & other accessories please go to page 44

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

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

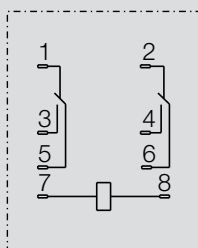


### Circuit diagram

#### PIN top view

Dimensions are in mm

2CO



### Output

Max. switching voltage	250 V AC
Continuous current	16 A @ 1CO / 10 A @ 2CO
Contact material	AgCdO
Min. load voltage / current	12 V / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles (1,800 cycles / hour)
Response / dropout delay	< 20 ms / < 20 ms

### Input

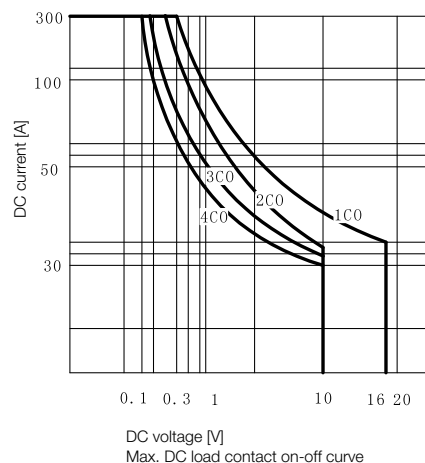
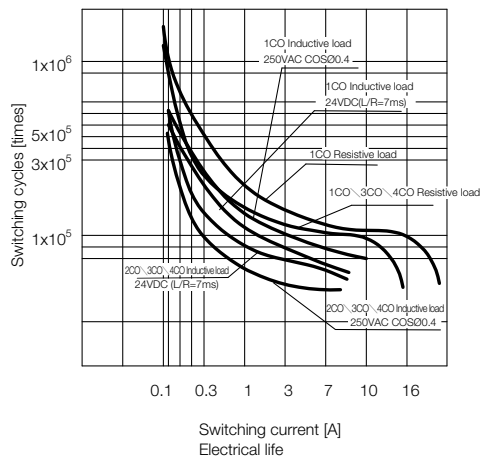
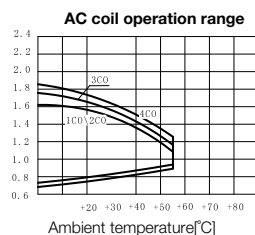
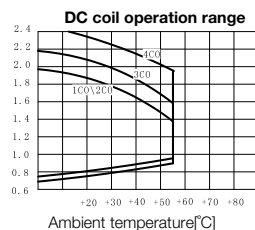
Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	1.2 VA / 0.9 W

### 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 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; UL
Weight	35 g
Min. in package	20 pcs

### Dimensions

Length x Width x Height	28 x 21.5 x 43 mm
-------------------------	-------------------



# 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	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
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%

Ordering information					
2 change over contact 2CO Type	DRL270012L	DRL270024L	DRL270048L	DRL270110L	DRL270220L
<b>Order No.</b>	<b>1133510000</b>	<b>1133520000</b>	<b>1133530000</b>	<b>1133540000</b>	<b>1133550000</b>



Ordering information	24 V AC	115 V AC	230 V AC		
<b>Input</b>					
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%		

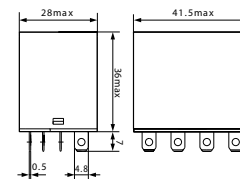
Ordering information					
2 change over contact 2CO Type	DRL270524L	DRL270615L	DRL270730L		
<b>Order No.</b>	<b>1133870000</b>	<b>1133880000</b>	<b>1133890000</b>		

\*For bases & other accessories please go to page 44

# DRL Power Relay

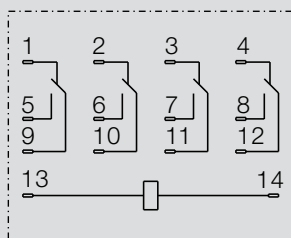
## DRL Power Relay 4 change over contacts, AC/DC coil

- 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 <sup>4</sup> 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	3CO: 2 VA / 1.4 W; 4CO: 2.5 VA / 1.5 W

### General

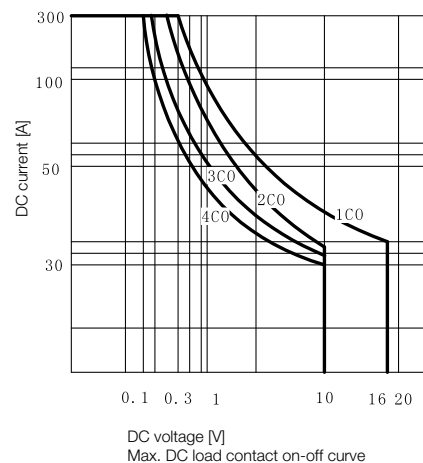
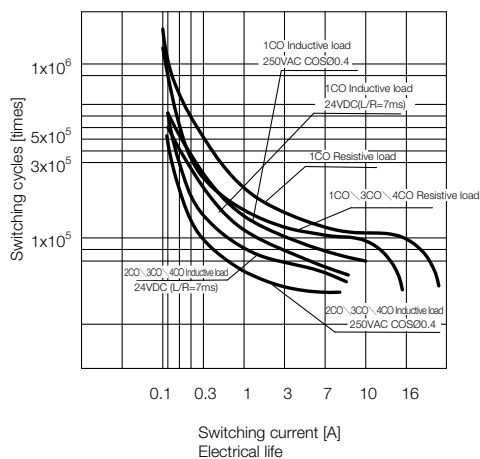
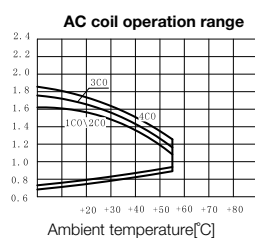
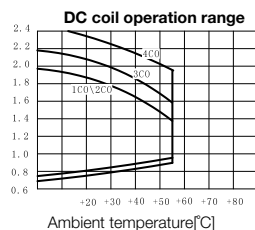
Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	35 ... 85 %
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	

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
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\*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	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
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
	3CO 4CO	3CO 4CO	3CO 4CO	3CO 4CO	3CO 4CO
Power consumption	1.4 W 1.5 W	1.4 W 1.5 W	1.4 W 1.5 W	1.4 W 1.5 W	1.4 W 1.5 W
Rated coil current	120 mA 125 mA	60 mA 66.7 mA	30 mA 31.2 mA	13.1 mA 16.2 mA	6.7 mA 7.6 mA
Coil resistance	100Ω ±10% 96Ω ±10%	400Ω ±10% 360Ω ±10%	1,600Ω ±10% 1,540Ω ±10%	8,400Ω ±10% 6,800Ω ±10%	33,000Ω ±10% 29,000Ω ±10%

Ordering information					
4 change over contact 4CO Type	DRL570012L	DRL570024L	DRL570048L	DRL570110L	DRL570220L
<b>Order No.</b>	<b>1133620000</b>	<b>1133630000</b>	<b>1133640000</b>	<b>1133650000</b>	<b>1133660000</b>

Ordering information	24 V AC	115 V AC	230 V AC		
<b>Input</b>					
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		
	3CO 4CO	3CO 4CO	3CO 4CO		
Power consumption	2 VA 2.5 VA	2 VA 2.5 VA	2 VA 2.5 VA		
Rated coil current (50 Hz)	80 mA 93.5 mA	16 mA 25.5 mA	10 mA 13.1mA		
Coil resistance	102Ω ±10% 80Ω ±10%	2,300Ω ±10% 1,680Ω ±10%	8,600Ω ±10% 6700Ω ±10%		

Ordering information					
4 change over contact 4CO Type	DRL570524L	DRL570615L	DRL570730L		
<b>Order No.</b>	<b>1133940000</b>	<b>1133950000</b>	<b>1133960000</b>		

\*For bases & other accessories please go to page 44

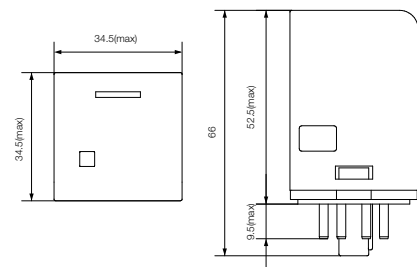


# DRR Octal Power Relay

## DRR Power Relay

### 2 change over contacts, AC/DC coil

- 2500 VA switchover capacity
- 8-pin octal plug in DIN rail installation
- International approval CE TÜV CE  $\Delta$

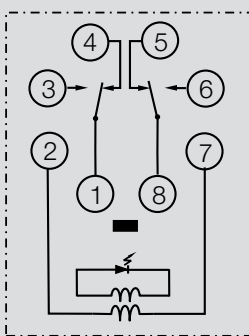


#### Circuit diagram

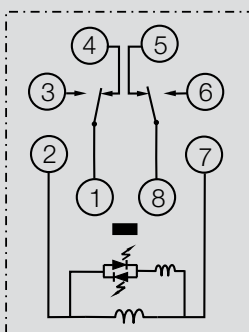
#### PIN top view

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 <sup>4</sup> 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

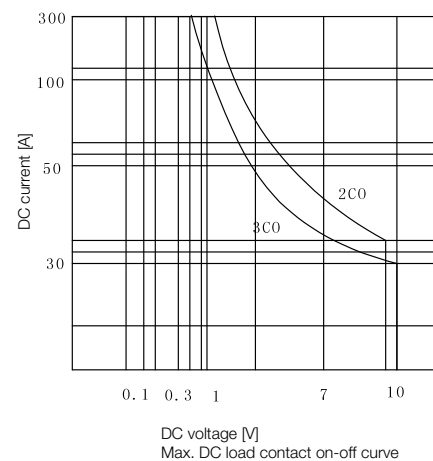
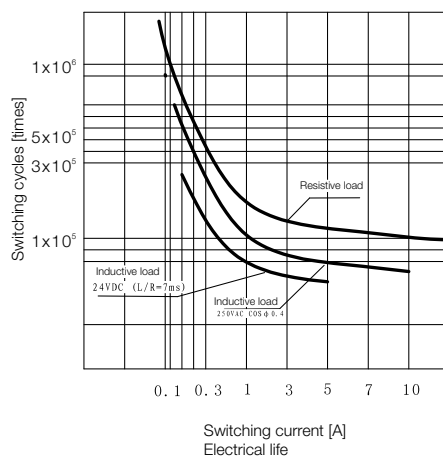
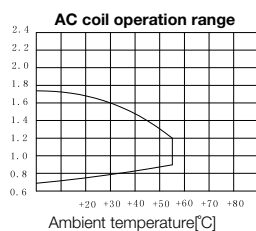
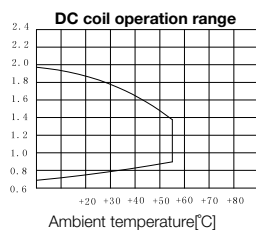
#### General

Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	5 ... 85 %
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts
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	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	DRR270012L	DRR270024L	DRR270048L	DRR270110L	DRR270220L
Order No.	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	DRR270524L	DRR270615L	DRR270730L		
Order No.	1133760000	1133780000	1133800000		

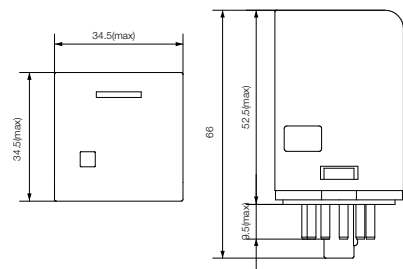
\*For bases & other accessories please go to page 44

# DRR Octal Power Relay

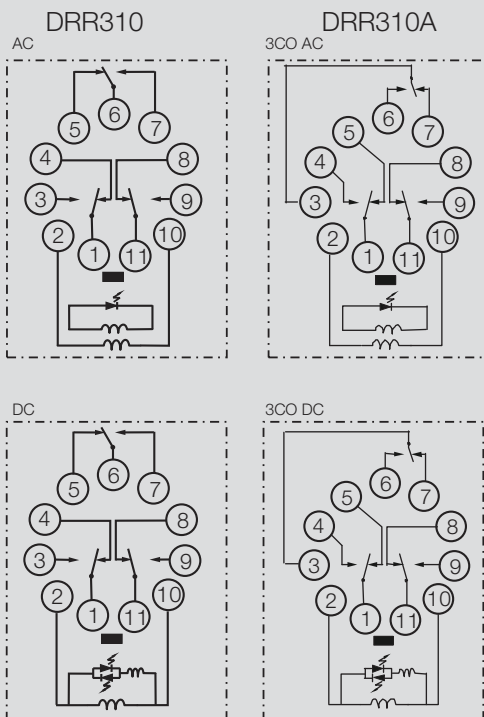
## DRR Power Relay

### 3 change over contacts, AC/DC coil

- 2500 VA switchover capacity
- 11-pin plug in DIN rail installation
- International approval CE TÜV  $\text{CE}$   $\Delta$



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 <sup>4</sup> 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

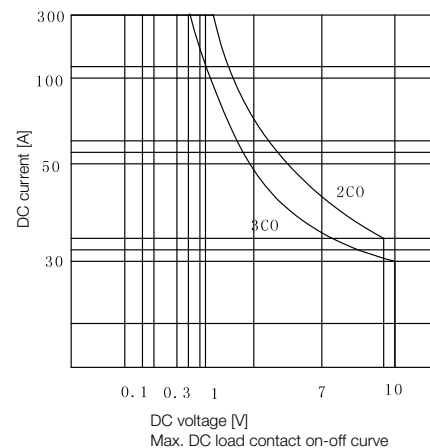
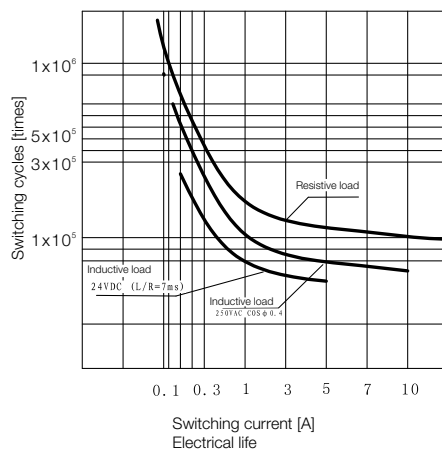
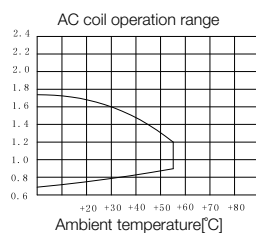
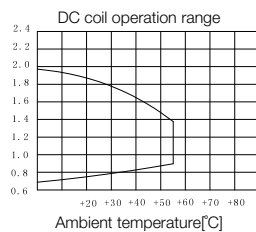
Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	5 ... 85 %
Dielectric strength	Coil-contact Between N.O. contacts Between adjacent contacts
	2,500V AC / 1 min 2,500V AC / 1 min 1,800V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	

Rated voltage	250 V
Pollution degree	3
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	75g
Min. in package	10

#### Dimensions

Length x Width x Height	34.5 x 34.5 x 66 mm
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# 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	12 V DC 3CO	24 V DC 3CO	48 V DC 3CO	110 V DC 3CO	220 V DC 3CO
<b>Input</b>					
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	DRR370012L	DRR370024L	DRR370048L	DRR370110L	DRR370220L
<b>Order No.</b>	<b>1133410000</b>	<b>1133420000</b>	<b>1133430000</b>	<b>1133440000</b>	<b>1133560000</b>
Type	DRR370012L-A	DRR370024L-A	DRR370048L-A	DRR370110L-A	DRR370220L-A
<b>Order No.</b>	<b>7760056250</b>	<b>7760056251</b>	<b>7760056252</b>	<b>7760056253</b>	<b>7760056254</b>

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Ordering information	24 V AC 3CO	115 V AC 3CO	230 V AC 3CO		
<b>Input</b>					
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	DRR370524L	DRR370615L	DRR370730L		
<b>Order No.</b>	<b>1133810000</b>	<b>1133820000</b>	<b>1133830000</b>		
Type	DRR370524L-A	DRR370615L-A	DRR370730L-A		
<b>Order No.</b>	<b>7760056255</b>	<b>7760056256</b>	<b>7760056257</b>		

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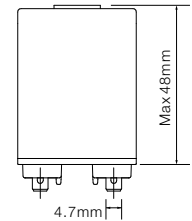
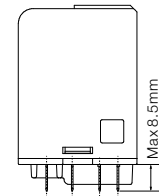
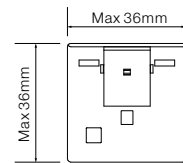
\*For bases & other accessories please go to page 44

# 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

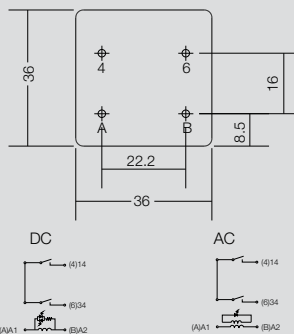


### Circuit diagram

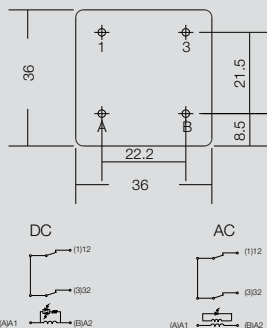
#### PIN top view

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 <sub>2</sub>
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> cycles
Response / dropout delay	< 20 ms / < 20 ms
Max. switching frequency at rated load	1 Hz

### Input

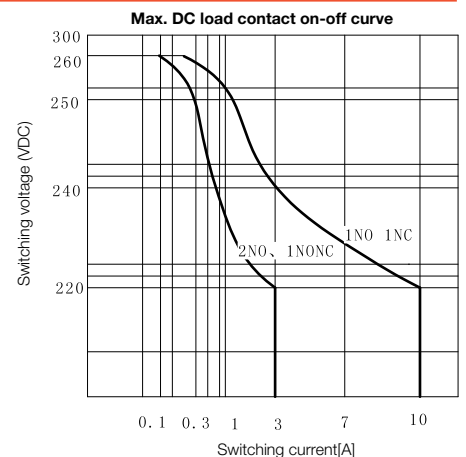
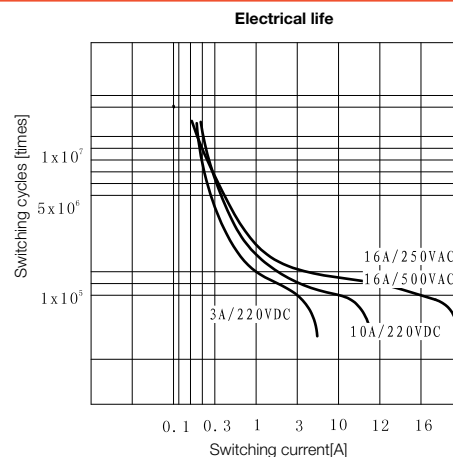
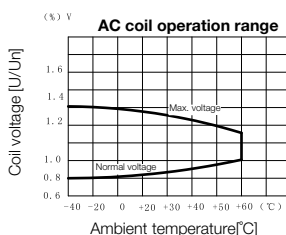
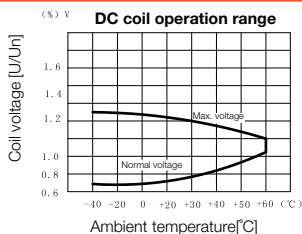
Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

### General

Operation temperature	-40°C ... 60°C
Storage temperature	-40°C ... 60°C
Humidity	35 ... 85 %
Dielectric strength	Coil-contact: 4,000V AC / 1 min Between N.O. contacts: 2,500V AC / 1 min Between adjacent contacts: 4,000V AC / 1 min
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
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\*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	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
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	Type	DRH173012LT	DRH173024LT	DRH173048LT	DRH173110LT	DRH173220LT
	Order No.	1219840000	1219850000	1219860000	1219870000	1219880000
1 N.C. contact	Type	DRH174012LT	DRH174024LT	DRH174048LT	DRH174110LT	DRH174220LT
	Order No.	1219940000	1219950000	1219960000	1219970000	1219980000
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

Ordering information	24 V AC2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO	
<b>Input</b>					
Rated voltage	24 V AC	48 V AC	115 V AC	230 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	
Power consumption	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	
Coil resistance	100Ω ±10%	350Ω ±10%	2,200Ω ±10%	8,000Ω ±10%	

Ordering information						
1 N.O. contact	Type	DRH173524LT	DRH173548LT	DRH173615LT	DRH173730LT	
	Order No.	1219890000	1219910000	1219920000	1219930000	
1 N.C. contact	Type	DRH174012LT	DRH174024LT	DRH174048LT	DRH174110LT	
	Order No.	1219990000	1220010000	1220020000	1220030000	
With test lever locking clip	Type	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	
	Order No.	7760056249	7760056249	7760056249	7760056249	

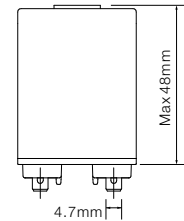
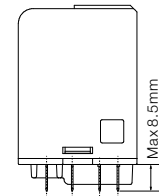
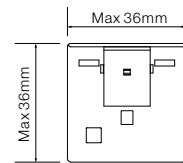
\*For bases & other accessories please go to page 44

# 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

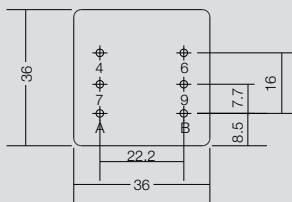


### Circuit diagram

#### PIN top view

Dimensions are in mm

2NO



DC

(7)11 (4)14

(9)31 (8)34

(A)A1 (B)A2

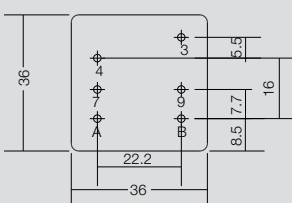
AC

(7)11 (4)14

(9)31 (8)34

(A)A1 (B)A2

1NO/1NC



DC

(7)11 (4)14

(9)31 (8)32

(A)A1 (B)A2

AC

(7)11 (4)14

(9)31 (8)32

(A)A1 (B)A2

### 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 <sub>2</sub>
Min. load voltage / current	12 VDC / 100 mA
Contact resistance (initial)	< 50 mΩ
Electrical endurance	> 10 × 10 <sup>4</sup> 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

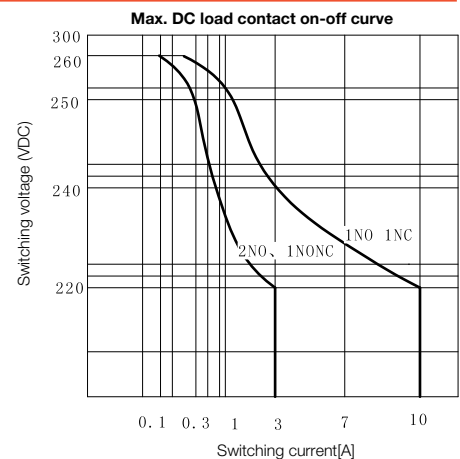
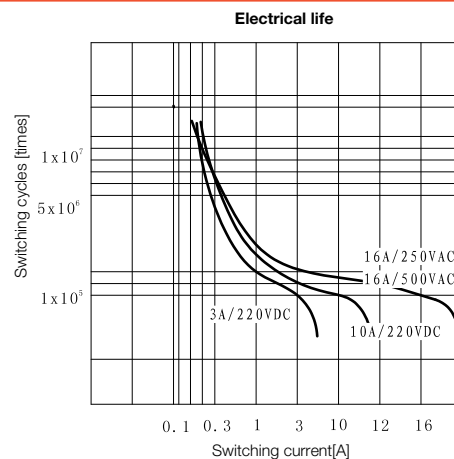
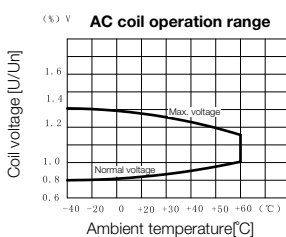
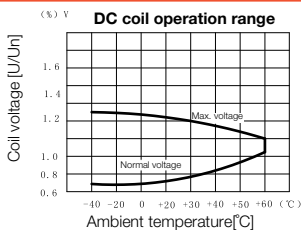
### General

Operation temperature	- 40 ... 60°C
Storage temperature	- 40 ... 60°C
Humidity	35 ... 85 %
Electrical strength	Coil-contact 4,000V AC / 1 min
	Between N.O. contacts 2,500V AC / 1 min
	Between adjacent contacts 4,000V AC / 1 min
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
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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	12 V DC	24 V DC	48 V DC	110 V DC	220 V DC
<b>Input</b>					
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/ Type 1 N.C. contact <b>Order No.</b>	DRH275012LT <b>1220040000</b>	DRH275024LT <b>1220050000</b>	DRH275048LT <b>1220060000</b>	DRH275110LT <b>1220070000</b>	DRH275220LT <b>1220080000</b>
2 N.O. contact Type <b>Order No.</b>	DRH276012LT <b>1220140000</b>	DRH276024LT <b>1220150000</b>	DRH276048LT <b>1220170000</b>	DRH276110LT <b>1220180000</b>	DRH276220LT <b>1220190000</b>
With test lever locking clip Type <b>Order No.</b>	Test lever block for DRH/DRW <b>7760056249</b>	Test lever block for DRH/DRW <b>7760056249</b>	Test lever block for DRH/DRW <b>7760056249</b>	Test lever block for DRH/DRW <b>7760056249</b>	Test lever block for DRH/DRW <b>7760056249</b>

Ordering information	24 V AC2CO	48 V AC 2CO	115 V AC 2CO	230 V AC 2CO	
<b>Input</b>					
Rated voltage	24 V AC	48 V AC	115 V AC	230 V AC	
DC response / dropout voltage	19.2V / 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%	

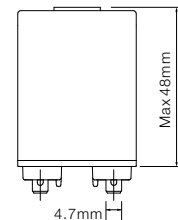
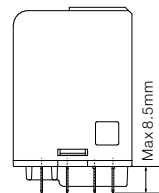
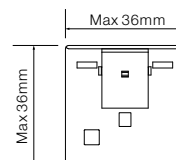
Ordering information					
1 N.O. contact/ Type 1 N.C. contact <b>Order No.</b>	DRH275524LT <b>1220090000</b>	DRH275548LT <b>1220110000</b>	DRH275615LT <b>1220120000</b>	DRH275730LT <b>1220130000</b>	
2 N.O. contact Type <b>Order No.</b>	DRH276524LT <b>1220200000</b>	DRH276548LT <b>1220210000</b>	DRH276615LT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

\*For bases & other accessories please go to page 44



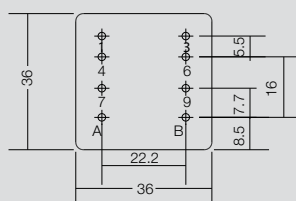
## DRW Power Relay 2CO / 3CO contacts AC / DC coil

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

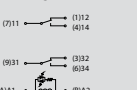


### Circuit diagram PIN top view Dimensions are in mm

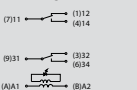
#### 2CO



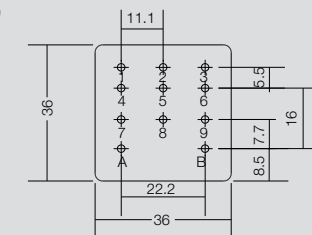
#### DC



#### AC



#### 3CO



#### DC



#### AC



### 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 <sup>4</sup> cycles
Response / dropout delay	< 20 ms / < 10 ms
Max. switching frequency at rated load	1 Hz

### Input

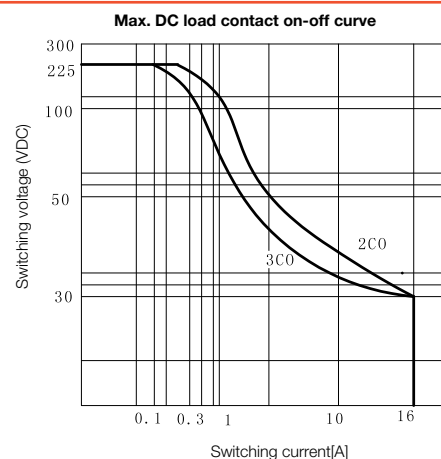
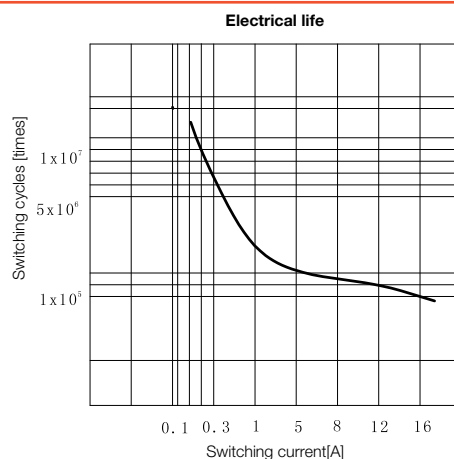
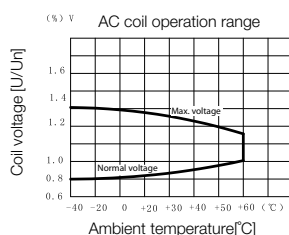
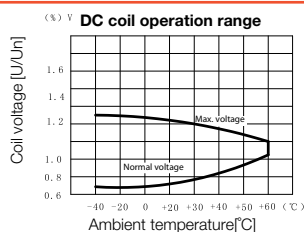
Response voltage @ 25°C	AC: ≤ 80% of rated voltage DC: ≤ 75% of rated voltage
Dropout voltage @ 25°C	AC: ≥ 30% of rated voltage DC: ≥ 10% of rated voltage
Max. voltage @ 25°C	110% of rated voltage
Coil power consumption	2.5 VA / 1.5 W

### General

Operation temperature	2CO: - 40 ... 60°C; 3CO: - 40 ... 50°C;
Storage temperature	- 40 ... 60°C
Humidity	35 ... 85 %
Dielectric strength	Coil-contact: 4,000V AC / 1 min Between N.O. contacts: 2,500V AC / 1 min Between adjacent contacts: 4,000V AC / 1 min
Clearance / creepage distance	3.5 mm / 6 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	51 g

### Dimensions

Length x Width x Height	36 x 36 x 48 mm
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# 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

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	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	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

### Ordering information

Input	24V AC	48V AC	115V AC	230V AC	400V AC
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	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW	Test lever block for DRH/DRW
	Order No.	7760056249	7760056249	7760056249	7760056249	7760056249

\*For bases & other accessories please go to page 44

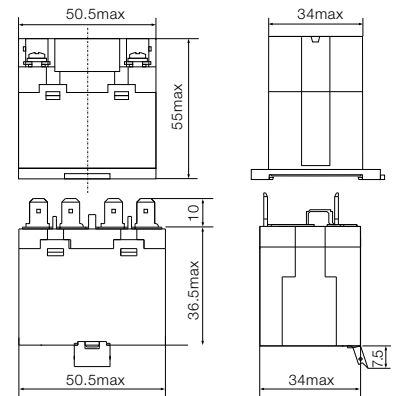
# PWR High Power Relay

## 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

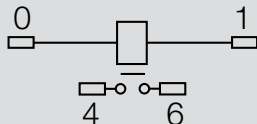
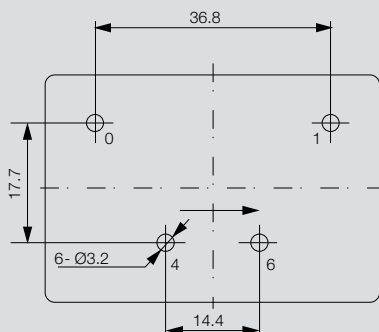


### Circuit diagram

### PIN top view

Dimensions are in mm

1NO



### 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 <sup>4</sup> 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

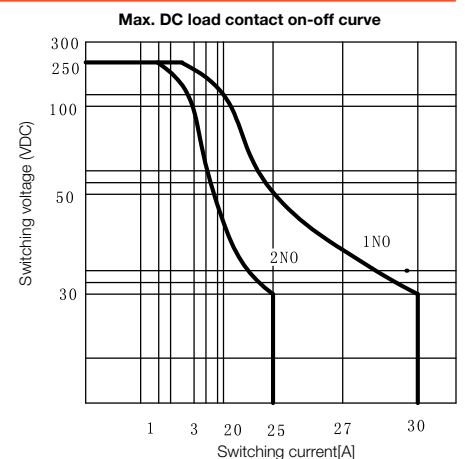
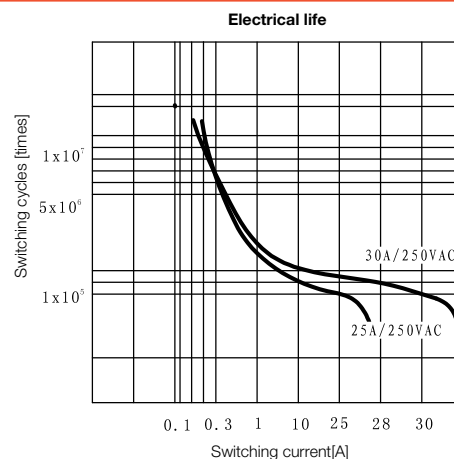
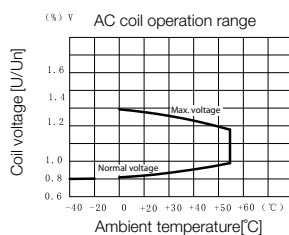
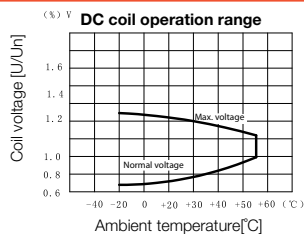
### General

Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	35 ... 85 %
Dielectric strength	Coil-contact: 2,000V AC / 1 min Between N.O. contacts: 2,000V AC / 1 min Between adjacent contacts: 4,000V AC / 1 min
Clearance / creepage distance	3.5 mm / 6 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
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
<b>Input</b>						
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							
plug-in, need socket	Type	PWR153006LT	PWR153012LT	PWR153024LT	PWR153048LT	PWR153110LT	PWR153220LT
	Order No.	1219590000	1219610000	1219620000	1219630000	1219640000	1219650000
Din rail installation, no need socket	Type	PWR173006L	PWR173012L	PWR173024L	PWR173048L	PWR173110L	PWR173220L
	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	
<b>Input</b>						
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%	

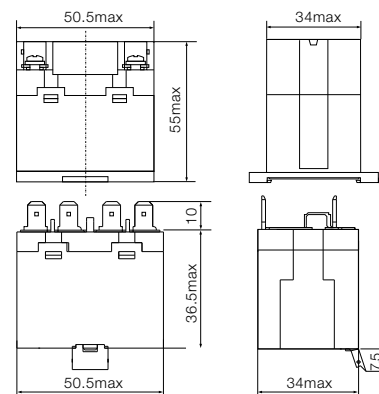
Ordering information							
Din-rail mounting without socket	Type	PWR153524LT	PWR153548LT	PWR153615LT	PWR153730LT	PWR153880LT	
	Order No.	1219230000	1219240000	1219250000	1219260000	1219270000	
Push-in connection with socket	Type	PWR173524L	PWR173548L	PWR173615L	PWR173730L	PWR173880L	
	Order No.	1219090000	1219120000	1219130000	1219140000	1219150000	

\*Note: PCB Soldering connection available.

# PWR High Power Relay

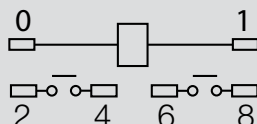
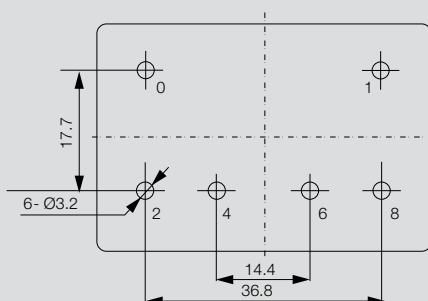
## PWR high power relay 2 N.O. contact AC / DC coil

- 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 <sup>4</sup> 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

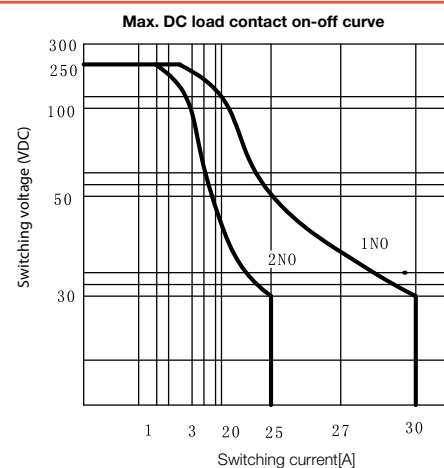
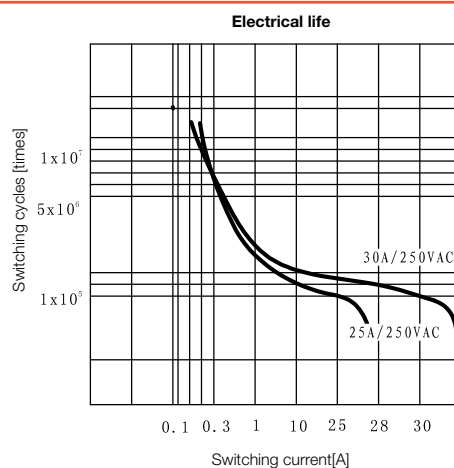
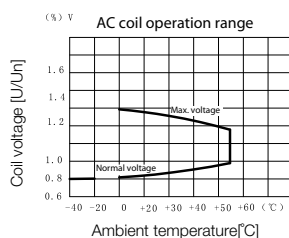
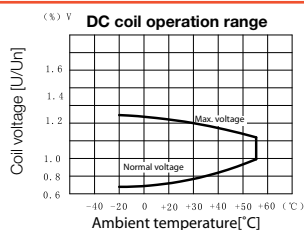
Operation temperature	- 25 ... 55°C
Storage temperature	- 25 ... 55°C
Humidity	35 ... 85 %
Dielectric strength	Coil-contact: 2,000V AC / 1 min Between N.O. contacts: 2,000V AC / 1 min Between adjacent contacts: 4,000V AC / 1 min
Clearance / creepage distance	1.5 mm / 4 mm
Insulation IEC60664	

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
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
<b>Input</b>						
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							
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	
<b>Input</b>						
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%	

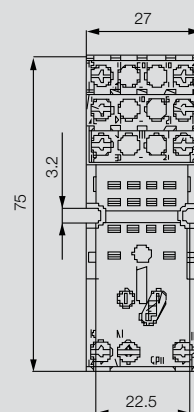
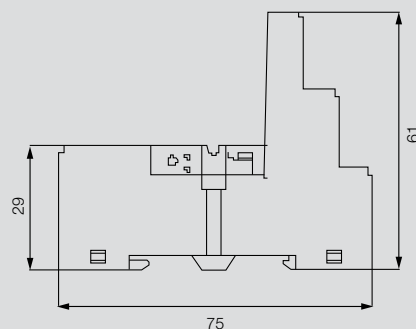
Ordering information							
plug-in , need socket	Type	PWR256524LT	PWR256548LT	PWR256615LT	PWR256730LT	PWR256880LT	
	Order No.	1219280000	1219290000	1219320000	1219330000	1219340000	
Din rail installation,no need socket	Type	PWR276524L	PWR276548L	PWR276615L	PWR276730L	PWR276880L	
	Order No.	1219160000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

\*Note: PCB Soldering connection available.

## Separated base (for RCM and DRM relays)



Dimensions are in mm



### 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 V <sub>rms</sub>
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 <sup>2</sup> / 2 x 1.5 mm <sup>2</sup>
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

### Relay clips (plastic and metal)

#### Ordering information

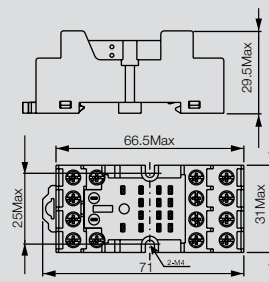
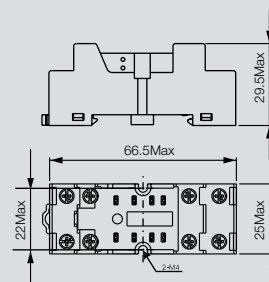
For SCM 2CO, SCM 3CO and SCM 4CO

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	Mark SCM ECO	7760056179

## Hybrid base (for RCM and DRM relay)



Dimensions are in mm



### 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 mm²	
Environments		-40°C...+70°C	
Weight	2CO/4CO	35g/43g	
Min. in package		20pcs	
Description		Type	Order No.
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
* Functional module is not suitable for this type of base.			

\* Functional module is not suitable for this type of base.

Note: FS base already have marks.

## Relay Base

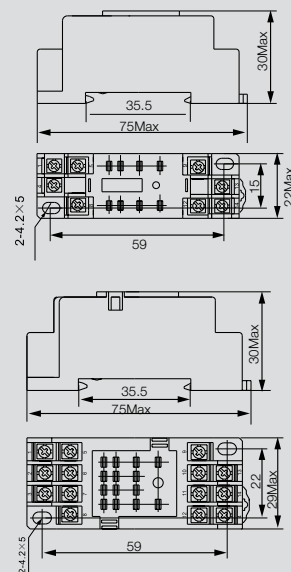
### Economic base (for RCM and DRM relay)



#### 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 <sup>2</sup>
Environments		-40°C...+70°C
Weight	2CO/4CO	43g/56g
Min. in package		20pcs
Description		Type
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		
		Order No.
		1190740000
		1190750000

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

### Functional modules

Technical data	Type	Order No.
Suppressor diode 6...230Vdc	RIM 1 6/230VDC	7760056169
RC-combined protection 110...230Vac	RIM 3 110/230VAC	7760056014
RC-combined protection 110...230Vac with LED *	RIM 3 110/230VAC LED	7760056045
Green LED 6...24 Vdc with suppressor diode	RIM 2 6/24VDC	7760056015
Green LED 24...60 Vdc with suppressor diode	RIM 2 24/60VDC	7760056016
Green LED 110...230 Vdc with suppressor diode	RIM 2 110/230VDC	7760056017
Green LED 6...24 Vdc / Vac	RIM 3 6/24VUC	7940018457
Green LED 24...60 Vdc / Vac	RIM 3 24/60VUC	7760056018
Green LED 110...230 Vdc / Vac	RIM 3 110/230VUC	7940018455
* For SCM/SRC base only, not for FS base.		



DRM clip M

### DRL relay base SLD



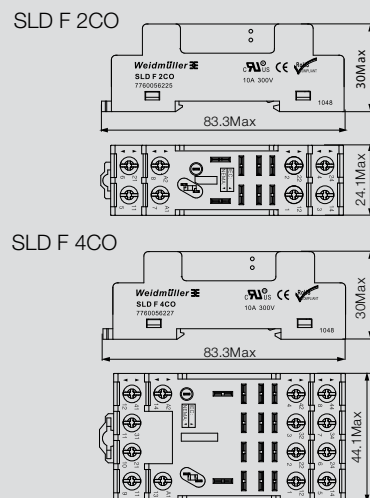
#### Ordering information

Technical data		
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 <sup>2</sup>
Protection level (IEC 61810)		IP20
Approvals		CE
Description		Type
DIN-rail mounted base, 2CO		SLD F 2CO
DIN-rail mounted base, 4CO		SLD F 4CO
		Order No.
		7760056225
		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 <sup>2</sup>	
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

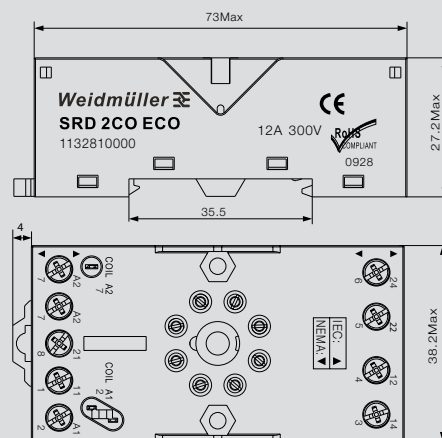


#### Ordering information

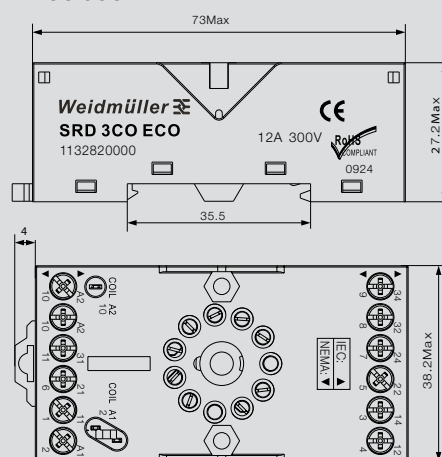
Technical data		
Rated voltage	400 V AC	
Rated current	16 A	
Coil/contact electrical strength	4,000 V	
Electrical strength between contacts	4,000 V	
Operation temperature	-40 ... 60°C	
Pollution class	2	
Over voltage class	II	
Wiring torque/max.	1.2 Nm	
Wire cross section	0.5 ... 4 mm <sup>2</sup>	
Protection 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

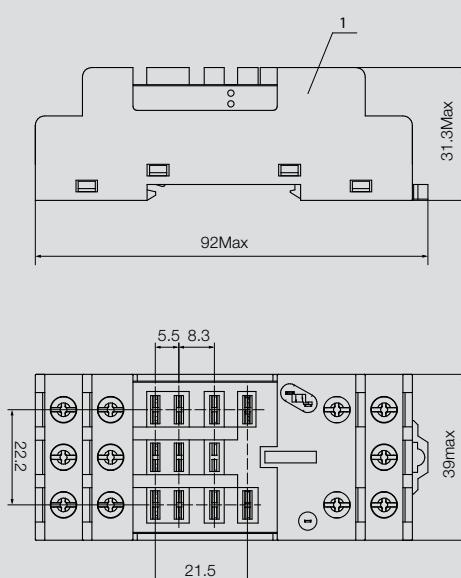


#### SRD ECO 3CO



Dimensions are in mm

#### SPW ECO 3CO



PWR relay base



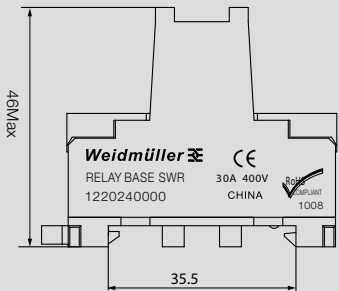
Product performance

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/mm²
Environments	-40~+85°C
Weight	56g

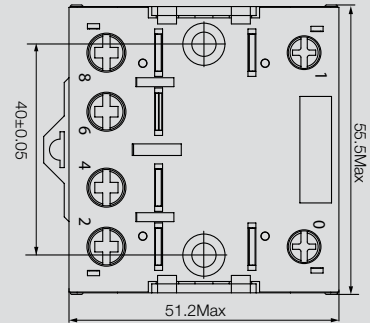
Assembled relays and accessories

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

Shape



Mounting




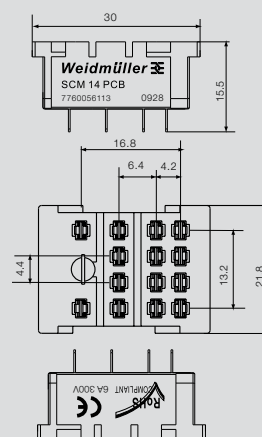
## Ordering information

Rated current
Rated voltage
Ambient temperature

Base with PCB pins, 2CO
Base with PCB pins, 3CO
Base with PCB pins, 4CO
Metal clip DRM PCB



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



## Ordering information

Rated current
Rated voltage
Ambient temperature

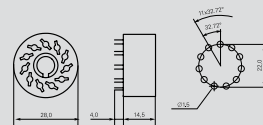
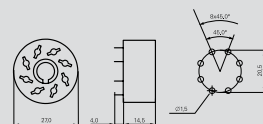
Base with PCB pins, 8-pin

---

Base with PCB pins, 11-pin



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



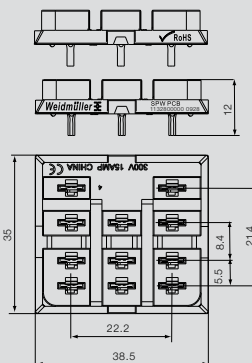
## Ordering information

Rated current
Rated voltage
Ambient temperature

Base with PCB pins, 11-pin  
Metal clip SPW PCB



16 A	
400 VAC	
– 40 °C ... +70 °C	
<b>Type</b>	<b>Order No.</b>
SPW PCB	1132800000
SPW METAL CLIP	1238770000



# PREVENT PROBLEMS & ENSURES OPERATION

## LOW HYSTERESIS, NOISE REJECTING RELAY



### LED Indication

Gives visual indication of relay operation



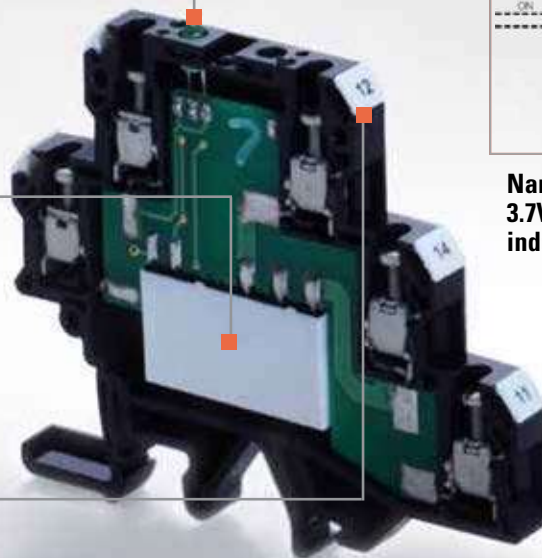
### SPDT Relay

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

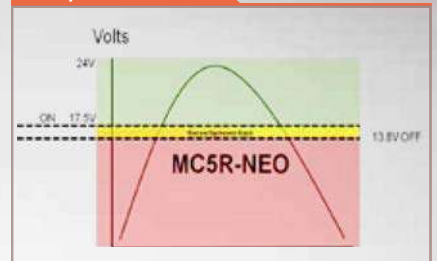


### Slimline Housing

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!

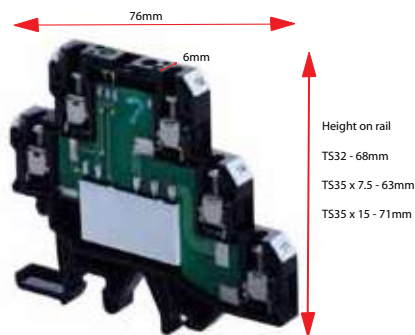
The **MC5R-NEO** ultra slim electromechanical relay is the first low hysteresis relay designed especially for the electrically noisy process and control industry.

# 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

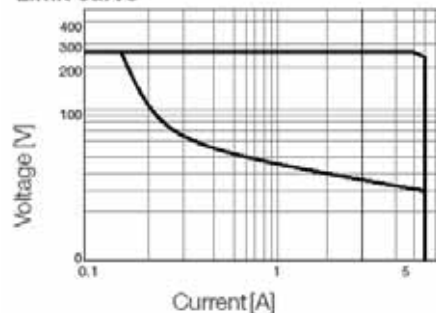


## Technical Data

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 <sup>2</sup>
	Flexible	0.5 to 2.5mm <sup>2</sup>
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

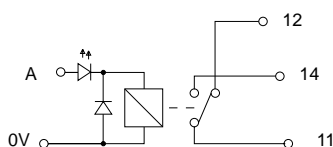
Wipe only with a damp cloth (remove power before cleaning).

## Ordering Information

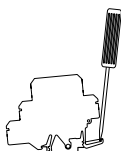
### MC5R Ordering

Nom. Volt.	Silver Alloy Contacts	Gold Contacts
24Vdc	7940009903	7940013020
Accessories		
End Plate	AP	1163830000
End Brackets	EW(TS35)	0383560000
	EWK(TS32)	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

## Circuit diagram



## Mounting



# MC5R - Single Channel Change-Over Relay

## MC5R Single Channel Change-Over

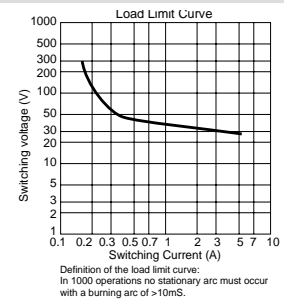
- Ultra compact 6mm wide housing
- Change-over contact
- 6A/240Vac rated
- Combifoot housing: TS32 & TS35
- Combifoot housing: TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Input diode protection
- Coil back-EMF diode protection



## 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 <sup>2</sup>				
	Flexible	0.5 to 2.5mm <sup>2</sup>				

## 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.

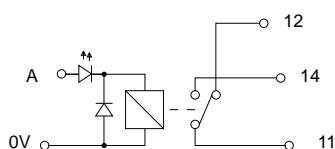
**Cleaning**  
 Wipe only with a damp cloth (remove power before cleaning).

**Location**  
 To be installed in a metal enclosure.

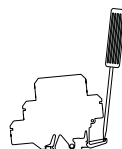
## Ordering Information

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)	0383560000
	EWK(TS32)	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

## Circuit diagram



## Mounting



# 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

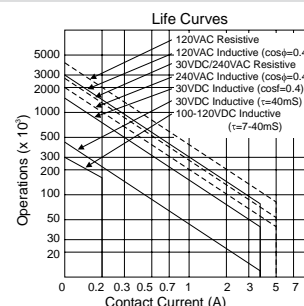
- 4000Vrms isolation
- LED relay state indication
- Reverse polarity diode protection
- Coil back-EMF diode protection



## 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 <sup>2</sup>			
	Flexible	0.5 to 2.5mm <sup>2</sup>			

## 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).

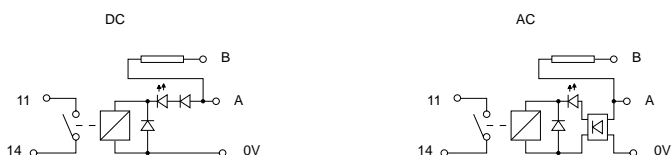
### Location

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
<b>Accessories</b>		
End Plate	AP	7940005681
End Brackets	EW(TS35)	0383560000
	EWK(TS32)	0206160000
<b>Cross Connection Parts</b>		
Insulated	2 pole	0482700000
	3 pole	0482800000
	4 pole	0482900000
Uninsulated	75 pole straight	0535200000
	75 pole angled	0526400000
<b>Mounting rail</b>		
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

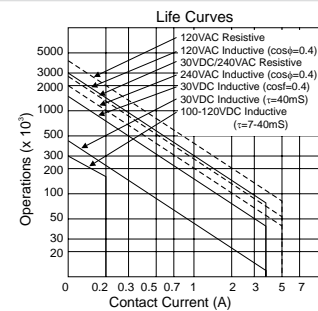
- 4000Vrms isolation
- LED relay state indication
- Reverse polarity diode protection
- Coil back-EMF diode protection



## 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 <sup>2</sup>
	Flexible	0.5 to 2.5mm <sup>2</sup>

## 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).

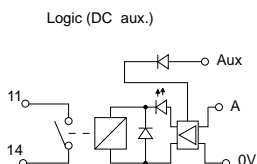
### Location

To be installed in a metal enclosure.

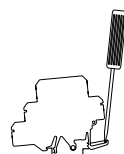
## Ordering Information

MC5R Ordering		
MC5R Single NO Relay		7901580000
Accessories		
End Plate	AP	7940005681
End Brackets	EW(TS35)	0383560000
	EWK(TS32)	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

## Circuit diagram



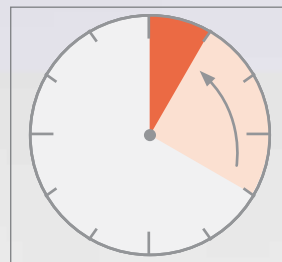
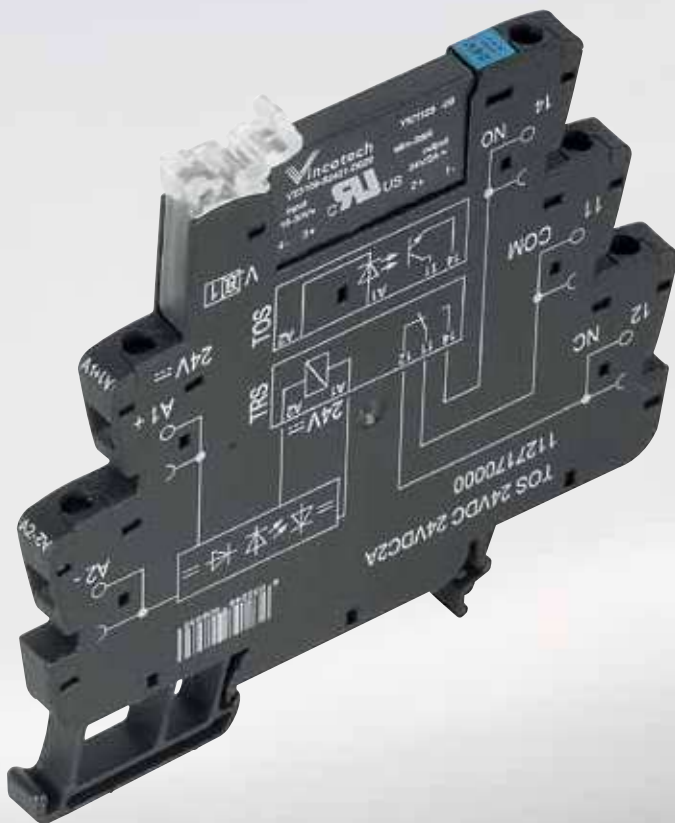
## Mounting





# CONSTANT COMMITMENT TO INNOVATION...

## NEW TERMSERIES SLIMLINE HIGH PERFORMANCE PLUG-IN OPTO COUPLERS



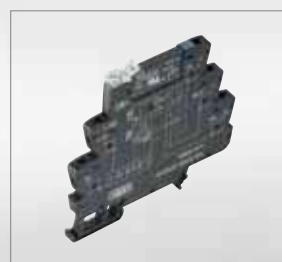
### Timesaving

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 Weidmüller and incorporates a number of new innovations from its already highly proven **MICROSERIES** slimline opto coupler family.

Not only have Weidmüller'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!

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MICROOPTO



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ACCESSORIES

### MC50

#### Specialty Terminal Optocouplers



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SOLENOID DRIVE 10A



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SOLENOID DRIVER 1A



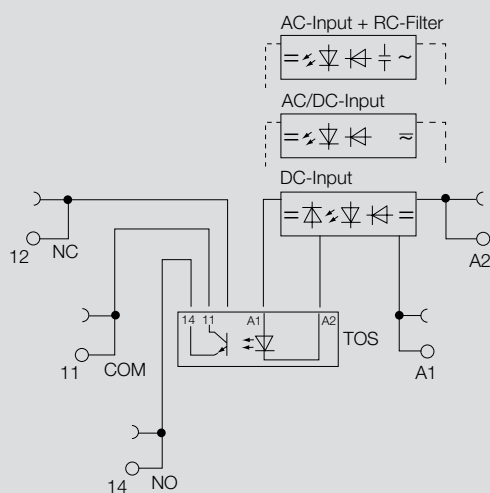
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DUAL VOLTAGE

## Solid State Relays

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		
Clearage and creepage distance input / output	≥= 5.5 mm		
Total circuit to rail	4 kVeff / 1 min		

Dimensions		
Clamping range	mm <sup>2</sup>	0.14...1.5 mm <sup>2</sup>
Height x length x width	mm	90 x 88 x 6.4

**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 %)
Inuit 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 <b>1127020000</b>	TOS 24-230VUC* 24VDC2A <b>1127250000</b>	TOS 24-230VUC* 230VAC1A <b>1127500000</b>
Tension clamp connection	TOZ 24-230VUC* 48VDC0.1A <b>1127130000</b>	TOZ 24-230VUC* 24VDC2A <b>1127380000</b>	TOZ 24-230VUC* 230VAC1A <b>1127620000</b>

**\*AC/DC (UC)**

<b>Note</b>	Spare relay type SSS 24V...
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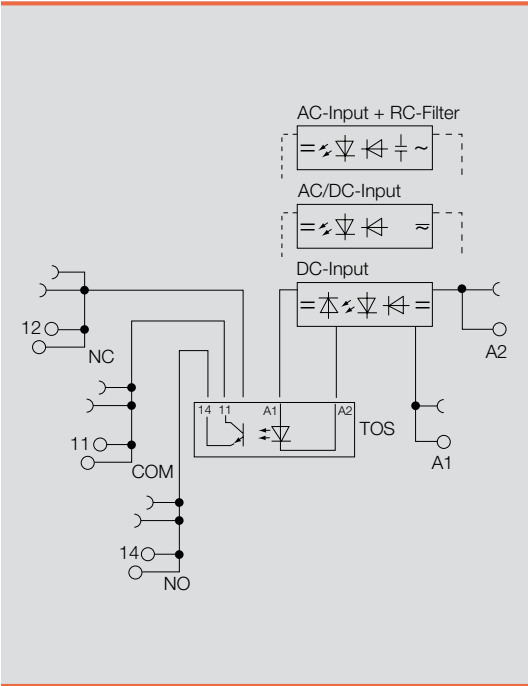
## Termseries Solid State Relays

Ordering data	5 V DC	12 V DC	24 V DC	24 V UC (AC/DC)	48 V UC (AC/DC)
<b>Control side</b>					
Rated control voltage	5 V DC $\pm$ 20 %	12 V DC $\pm$ 20 %	24 V DC $\pm$ 20 %	24 V UC (AC/DC) $\pm$ 10 %	48 V UC (AC/DC) $\pm$ 10 %
Input current AC/DC	- / 39 mA	- / 9.6 mA	- / 10...13 mA	11 mA / 6 mA	6 mA / 4 mA
Input power	200 mW	115 mW	140...250 mW	264 mVA / 154 mW	288 mVA / 192 mW
Making threshold	3.8 V DC @	4.7 V DC @	15 V DC @	14 V @	36 V @
Dropout threshold	1.6 V DC @	4.6 V DC @	11 V DC @	13 V @	19 V @
<b>Ordering data</b>					
Screw connection	TOS 5VDC 48VDC0.1A	TOS 12VDC 48VDC0.1A	TOS 24VDC 48VDC0.1A	TOS 24VUC* 48VDC0.1A	TOS 48VUC* 48VDC0.1A
24 V 0.1 A DC	<b>1126920000</b>	<b>1126930000</b>	<b>1126940000</b>	<b>1126950000</b>	<b>1126960000</b>
	TOS 5VDC 24VDC2A	TOS 12VDC 24VDC2A	TOS 24VDC 24VDC2A	TOS 24VUC* 24VDC2A	TOS 48VUC* 24VDC2A
24 V 2 A DC	<b>1127140000</b>	<b>1127150000</b>	<b>1127170000</b>	<b>1127180000</b>	<b>1127190000</b>
	TOS 5VDC 230VAC1A	TOS 12VDC 230VAC1A	TOS 24VDC 230VAC1A	TOS 24VUC* 230VAC1A	TOS 48VUC* 230VAC1A
230 V 1 A AC	<b>1127390000</b>	<b>1127400000</b>	<b>1127410000</b>	<b>1127420000</b>	<b>1127430000</b>
Tension clamp connection	TOZ 5VDC 48VDC0.1A	TOZ 12VDC 48VDC0.1A	TOZ 24VDC 48VDC0.1A	TOZ 24VUC* 48VDC0.1A	TOZ 48VUC* 48VDC0.1A
24 V 0.1 A DC	<b>1127030000</b>	<b>1127040000</b>	<b>1127050000</b>	<b>1127060000</b>	<b>1127070000</b>
	TOZ 5VDC 24VDC2A	TOZ 12VDC 24VDC2A	TOZ 24VDC 24VDC2A	TOZ 24VUC* 24VDC2A	TOZ 48VUC* 24VDC2A
24 V 2 A DC	<b>1127270000</b>	<b>1127280000</b>	<b>1127290000</b>	<b>1127300000</b>	<b>1127310000</b>
	TOZ 5VDC 230VAC1A	TOZ 12VDC 230VAC1A	TOZ 24VDC 230VAC1A	TOZ 24VUC* 230VAC1A	TOZ 48VUC* 230VAC1A
230 V 1 A AC	<b>1127510000</b>	<b>1127520000</b>	<b>1127530000</b>	<b>1127540000</b>	<b>1127550000</b>
				<b>*AC/DC (UC)</b>	<b>*AC/DC (UC)</b>
<b>Note</b>	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...
<b>Ordering data</b>	<b>60 V UC (AC/DC)</b>	<b>120 V UC (AC/DC)</b>	<b>230 V UC (AC/DC)</b>	<b>120 V AC RC</b>	<b>230 V AC RC</b>
<b>Control side</b>					
Rated control voltage	60 V UC (AC/DC) $\pm$ 10 %	120 V UC (AC/DC) $\pm$ 10 %	230 V UC (AC/DC) $\pm$ 10 %	120 V AC $\pm$ 10 %	230 V AC $\pm$ 10 %
Input current AC/DC	5 mA / 3 mA	5 mA / 3 mA	3.5 mA / 2.9 mA	7 mA / -	9 mA / -
Input power	300 mVA / 180 mW	480 mVA / 360 mW	805 mVA / 670 mW	840 mVA	2.1 VA
Making threshold	35 V @	82 V @	159 V @	79 V @	119 V
Dropout threshold	20 V @	65 V @	99 V @	65 V @	94 V
<b>Ordering data</b>					
Screw connection	TOS 60VUC* 48VDC0.1A	TOS 120VUC* 48VDC0.1A	TOS 230VUC* 48VDC0.1A	TOS 120VAC RC 48VDC0.1A	TOS 230VAC RC 48VDC0.1A
24 V 0.1 A DC	<b>1126970000</b>	<b>1126980000</b>	<b>1126990000</b>	<b>1127000000</b>	<b>1127010000</b>
	TOS 60VUC* 24VDC2A	TOS 120VUC* 24VDC2A	TOS 230VUC* 24VDC2A	TOS 120VAC RC 24VDC2A	TOS 230VAC RC 24VDC2A
24 V 2 A DC	<b>1127200000</b>	<b>1127210000</b>	<b>1127220000</b>	<b>1127230000</b>	<b>1127240000</b>
	TOS 60VUC* 230VAC1A	TOS 120VUC* 230VAC1A	TOS 230VUC* 230VAC1A	TOS 120VAC RC 230VAC1A	TOS 230VAC RC 230VAC1A
230 V 1 A AC	<b>1127440000</b>	<b>1127450000</b>	<b>1127470000</b>	<b>1127480000</b>	<b>1127490000</b>
Tension clamp connection	TOZ 60VUC* 48VDC0.1A	TOZ 120VUC* 48VDC0.1A	TOZ 230VUC* 48VDC0.1A	TOZ 120VAC RC 48VDC0.1A	TOZ 230VAC RC 48VDC0.1A
24 V 0.1 A DC	<b>1127080000</b>	<b>1127090000</b>	<b>1127100000</b>	<b>1127110000</b>	<b>1127120000</b>
	TOZ 60VUC* 24VDC2A	TOZ 120VUC* 24VDC2A	TOZ 230VUC* 24VDC2A	TOZ 120VAC RC 24VDC2A	TOZ 230VAC RC 24VDC2A
24 V 2 A DC	<b>1127320000</b>	<b>1127330000</b>	<b>1127340000</b>	<b>1127350000</b>	<b>1127370000</b>
	TOZ 60VUC* 230VAC1A	TOZ 120VUC* 230VAC1A	TOZ 230VUC* 230VAC1A	TOZ 120VAC RC 230VAC1A	TOZ 230VAC RC 230VAC1A
230 V 1 A AC	<b>1127570000</b>	<b>1127580000</b>	<b>1127590000</b>	<b>1127600000</b>	<b>1127610000</b>
	<b>*AC/DC (UC)</b>	<b>*AC/DC (UC)</b>	<b>*AC/DC (UC)</b>		
<b>Note</b>	Spare relay type SSS 60V...	Spare relay type SSS 60V...	Spare relay type SSS 60V...	Spare relay type SSS 60V...	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 / -
<b>General data</b>		
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	
<b>Insulation coordination (EN 50 178)</b>		
Rated voltage	300 V	
Rated impulse voltage	6kV (1.2 / 50 µs)	
Overvoltage category	III	
Pollution degree	2	
Clearance and creepage distance input / output	>= 5.5 mm	
Total circuit to rail	4kVeff / 1 min	
<b>Dimensions</b>		
Clamping range	mm²	0.14...1.5 mm²
Height x length x width	mm	90 x 88 x 12.8
<b>Note</b>		

	24 V DC	24 V - 230 V UC*
<b>Control side</b>		
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 @	11 V
Dropout threshold	11V DC @	5 V
<b>*AC/DC (UC)</b>		

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

<b>Note</b>	Spare relay type SSR10...32 V DC/...
-------------	--------------------------------------

## Empty socket 6.4 mm



Type / 1 CO, Screw connection	Input voltage	Order No.
TRS 5VDC 1CO empty	5 V DC <sup>(1)</sup>	1123220000
TRS 12VDC 1CO empty	12 V DC <sup>(2)</sup>	1123230000
TRS 24VDC 1CO empty	24 V DC <sup>(3)</sup>	1123240000
TRS 24VUC (AC/DC) 1CO empty	24 V AC / DC <sup>(3)</sup>	1123250000
TRS 48VUC (AC/DC) 1CO empty	48 V AC / DC <sup>(3)</sup>	1123270000
TRS 60VUC (AC/DC) 1CO empty	60 V AC / DC <sup>(4)</sup>	1123280000
TRS 120VUC (AC/DC) 1CO empty	120 V AC / DC <sup>(4)</sup>	1123290000
TRS 230VUC (AC/DC) 1CO empty	230 V AC / DC <sup>(4)</sup>	1123300000
TRS 120VAC RC 1CO empty	120 V AC <sup>(4)</sup>	1123310000
TRS 230VAC RC 1CO empty	230 V AC <sup>(4)</sup>	1123320000
TRS 24-230VUC (AC/DC) 1CO empty	24...230 V AC / DC <sup>(3)</sup>	1123330000
Type / 1 CO, Tension clamp connection		
TRZ 5VDC 1CO empty	5 V DC <sup>(1)</sup>	1123340000
TRZ 12VDC 1CO empty	12 V DC <sup>(2)</sup>	1123350000
TRZ 24VDC 1CO empty	24 V DC <sup>(3)</sup>	1123370000
TRZ 24VUC (AC/DC) 1CO empty	24 V AC / DC <sup>(3)</sup>	1123380000
TRZ 48VUC (AC/DC) 1CO empty	48 V AC / DC <sup>(3)</sup>	1123390000
TRZ 60VUC (AC/DC) 1CO empty	60 V AC / DC <sup>(4)</sup>	1123400000
TRZ 120VUC (AC/DC) 1CO empty	120 V AC / DC <sup>(4)</sup>	1123410000
TRZ 230VUC (AC/DC) 1CO empty	230 V AC / DC <sup>(4)</sup>	1123420000
TRZ 120VAC RC 1CO empty	120 V AC <sup>(4)</sup>	1123430000
TRZ 230VAC RC 1CO empty	230 V AC <sup>(4)</sup>	1123440000
TRZ 24-230VUC (AC/DC) 1CO empty	24...230 V AC / DC <sup>(3)</sup>	1123450000
Useable with <sup>(1)</sup> RSS...005; SSS 5V... <sup>(2)</sup> RSS...012 <sup>(3)</sup> RSS...024; SSS 24V... <sup>(4)</sup> RSS...060; SSS 60V...		



## Empty socket 12.8 mm



Type / 1 CO, Screw connection	Input voltage	Order No.
TOS 24VDC empty	24 V DC <sup>(1)</sup>	1127720000
TOS 24-230VUC (AC/DC) empty	24...230 V AC / DC <sup>(1)</sup>	1127730000
Type / 2 CO, Screw connection		
TRS 5VDC 2CO empty	5 V DC <sup>(2)</sup>	1123950000
TRS 12VDC 2CO empty	12 V DC <sup>(3)</sup>	1123970000
TRS 24VDC 2CO empty	24 V DC <sup>(4)</sup>	1123980000
TRS 24VUC (AC/DC) 2CO empty	24 V AC / DC <sup>(4)</sup>	1123990000
TRS 48VUC (AC/DC) 2CO empty	48 V AC / DC <sup>(5)</sup>	1124000000
TRS 60VUC (AC/DC) 2CO empty	60 V AC / DC <sup>(6)</sup>	1124010000
TRS 120VUC (AC/DC) 2CO empty	120 V AC / DC <sup>(7)</sup>	1124020000
TRS 230VUC (AC/DC) 2CO empty	230 V AC / DC <sup>(7)</sup>	1124030000
TRS 120VAC RC 2CO empty	120 V AC <sup>(7)</sup>	1124040000
TRS 230VAC RC 2CO empty	230 V AC <sup>(7)</sup>	1124050000
TRS 24-230VUC (AC/DC) 2CO empty	24...230 V AC / DC <sup>(4)</sup>	1124070000
Type / 1 CO, Tension clamp connection		
TOZ 24VDC empty	24 V DC <sup>(1)</sup>	1127740000
TOZ 24-230VUC (AC/DC) empty	24...230 V AC / DC <sup>(1)</sup>	1127750000
Type / 2 CO, Tension clamp connection		
TRZ 5VDC 2CO empty	5 V DC <sup>(2)</sup>	1124080000
TRZ 12VDC 2CO empty	12 V DC <sup>(3)</sup>	1124090000
TRZ 24VDC 2CO empty	24 V DC <sup>(4)</sup>	1124100000
TRZ 24VUC (AC/DC) 2CO empty	24 V AC / DC <sup>(4)</sup>	1124110000
TRZ 48VUC (AC/DC) 2CO empty	48 V AC / DC <sup>(5)</sup>	1124120000
TRZ 60VUC (AC/DC) 2CO empty	60 V AC / DC <sup>(6)</sup>	1124130000
TRZ 120VUC (AC/DC) 2CO empty	120 V AC / DC <sup>(7)</sup>	1124140000
TRZ 230VUC (AC/DC) 2CO empty	230 V AC / DC <sup>(7)</sup>	1124150000
TRZ 120VAC RC 2CO empty	120 V AC <sup>(7)</sup>	1124170000
TRZ 230VAC RC 2CO empty	230 V AC <sup>(7)</sup>	1124180000
TRZ 24-230VUC (AC/DC) 2CO empty	24...230 V AC / DC <sup>(4)</sup>	1124190000
Useable with <sup>(1)</sup> RCL31.024; SSR 10...32VDC/... <sup>(2)</sup> RCL42.005 <sup>(3)</sup> RCL42.012 <sup>(4)</sup> RCL42.024 <sup>(5)</sup> RCL42.048 <sup>(6)</sup> RCL42.060 <sup>(7)</sup> RCL42.110		



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) <sup>(3)</sup>
Max. switching voltage / current			250 V / 6A <sup>(1)</sup>	250 V / 6A <sup>(1)</sup>
Min. switching voltage / current			5 V / 100 mA <sup>(2)</sup>	1 V / 1 mA
Min. mechanical lifetime			5x10 <sup>6</sup> <sup>(1)</sup>	5x10 <sup>6</sup> <sup>(1)</sup>
Min. mechanical lifetime			NO: 5x10 <sup>4</sup> ; NC: 3x10 <sup>4</sup> <sup>(1)</sup>	NO: 5x10 <sup>4</sup> ; NC: 3x10 <sup>4</sup> <sup>(1)</sup>
Max. switch-on / switch-off delay			8 / 4 ms	8 / 4 ms
Ambient temperature (operational)			-40...+85 °C	-40...+85 °C
Making / Dropout voltage coil			Type. 70 % / 5 % U <sub>NENN</sub>	Type. 70 % / 5 % U <sub>NENN</sub>
Note			<sup>(1)</sup> At resistive load <sup>(2)</sup> 10 V / 10 mA; 24 V / 1 mA <sup>(3)</sup> Gold (Au) - plate operate up to 0.25 W	
Coil data	Rated voltage / current		Order No.	Order No.
RSS...005	5 V DC / 34 mA		4061580000	1174540000
RSS...012	12 V DC / 14 mA		4061610000	1220670000
RSS...024	24 V DC / 7 mA		4060120000	4061590000
RSS...060	60 V DC / 3 mA		4061630000	4061600000

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) <sup>(3)</sup>
Max. switching voltage / current			250 V / 8A <sup>(1)</sup>	250 V / 8A <sup>(1)</sup>
Min. switching voltage / current			5 V / 100 mA <sup>(2)</sup>	1 V / 1 mA
Min. mechanical lifetime			30x10 <sup>6</sup> <sup>(1)</sup>	30x10 <sup>6</sup> <sup>(1)</sup>
Min. mechanical lifetime			10x10 <sup>3</sup> <sup>(1)</sup>	10x10 <sup>3</sup> <sup>(1)</sup>
Max. switch-on / switch-off delay			8 / 6 ms	8 / 6 ms
Ambient temperature (operational)			-40...+85 °C	-40...+85 °C
Making / Dropout voltage coil			Type. 70 % / 10 % U <sub>NENN</sub>	Type. 70 % / 10 % U <sub>NENN</sub>
Note			<sup>(1)</sup> At resistive load <sup>(2)</sup> 10 V / 10 mA; 24 V / 1 mA <sup>(3)</sup> Gold (Au) - plate operate up to 0.25 W	
Coil data	Rated voltage / current	Rated current	Order No.	Order No.
RCL...005	5 V DC / 80 mA	80 mA	8693790000	1174490000
RCL...012	12 V DC / 33 mA	33 mA	4058560000	4074580000
RCL...024	24 V DC / 16 mA	16 mA	4058570000	4058580000
RCL...048	48 V DC / 8 mA	8 mA	4058750000	1201230000
RCL...060	60 V DC / 6 mA	6 mA	4058760000	1201260000
RCL...110	110 V DC / 3 mA	3 mA	4058590000	8828370000

## 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.	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
Storage temperature			-40...+100 °C
Note			
Coil data	Rated voltage / current	Order No.	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

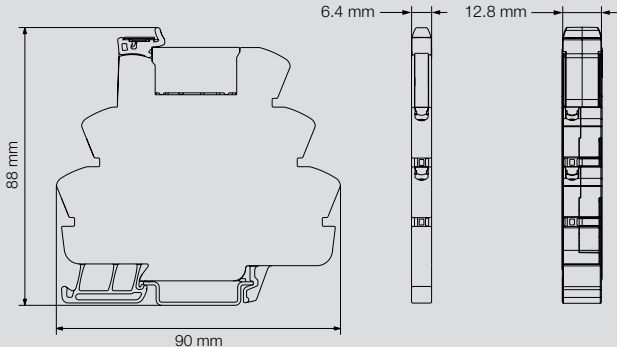
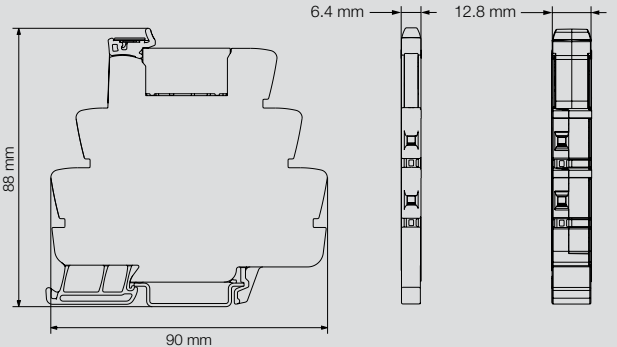
Additional accessory

	Type / Isolation plate		Order No.
	TW TXS/TXZ R3.2	Isolation plate 3.2 mm pitch	1240800000
	Marker		
	WS 10/6 MC Middle	10x6 mm	1818400000
	Screw driver		
	SDK PH0	Only Screw connection	9008470000
	SD 0.6 x 3.5 x 100		9008330000
	End bracket		
	WEW35/2 SW		1061210000

Technical data

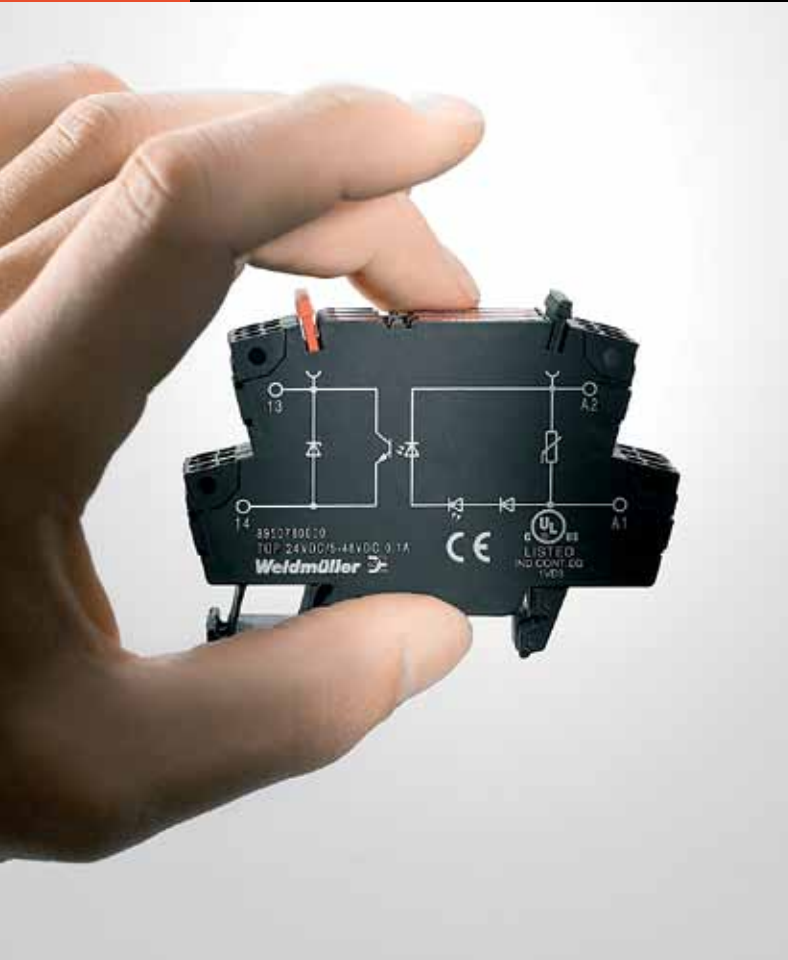
Conductor	Screw connection	Tension clamp connection
1 conductor		
Solid H07V-U	0.14...2.5	0.14...1.5
Stranded H07V-K	0.14...1.5	0.14...1.5
... with wire end ferrule	0.25...1.5	0.14...1.5
... with wire end ferrule with plastic collar	0.25...1.5	0.14...1.5
2 conductor with same size		
Solid H07V-U	0.5...1.0	0.5...1.0
Stranded H07V-K	0.5...1.0	0.5...1.0
... with twin wire end ferrule H...D ZH	0.5...1.5	0.5...1.0
Clamping range AWG.../1	26...14	26...16
Clamping range AWG.../7	26...16	26...16
Clamping range AWG.../19	26...16	26...16
Plug gauge to IEC 60947-1	A1 / B1	A1 / B1
General data		
Nominal torque	0.4	
Stripping length	8	8
Continuous current ZQV 1.5N/R6.4	17.5; UL: 10	17.5; UL: 10
No. Contact durability relay / ZQV	10	10
Note		

Dimensions

Tension clamp connection	Screw connection
	

# IN TERMS OF LIFE GO WITH AN OPTO

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



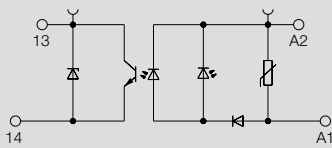
Weidmüller's comprehensive range of Optocouplers provides customers with a solution for all applications. All products are designed and constructed with a focus of high quality, market leading features and space saving design.

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.

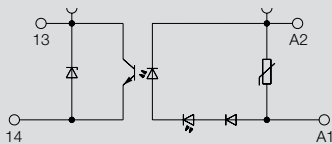
## TERMOPTO output variants DC 500 mA



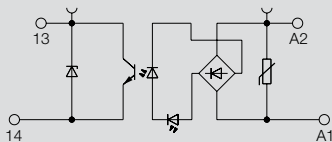
### 5 V DC



### 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 <sub>u</sub> = 40°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
Overvoltage category	III
Pollution degree	2

### Dimensions

	Screw connection	PUSH IN connection
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 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

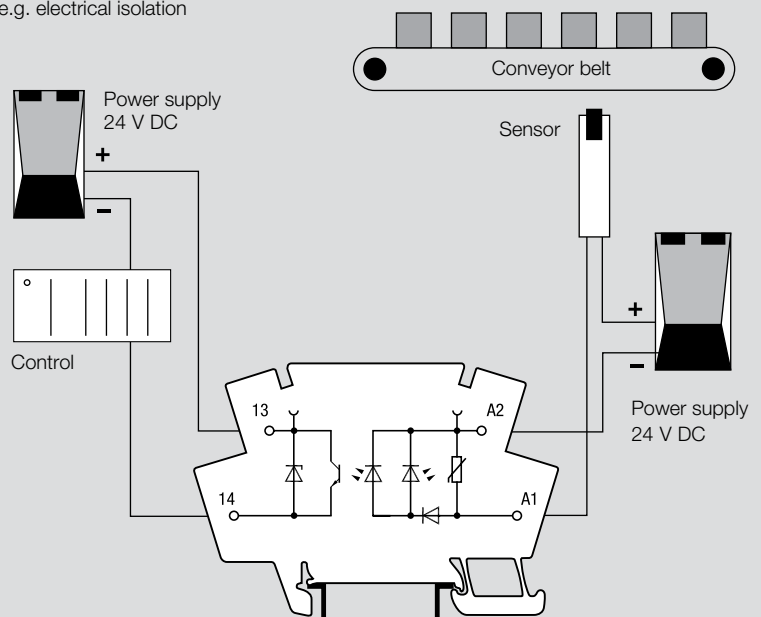
The **TERMOPTO** opto module is used in industrial applications in which electrical isolation and signal conditioning without switching amplification is sufficient.

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



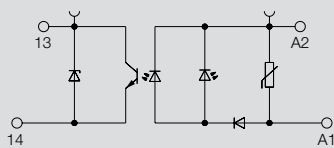
## TERMOPTO output variants DC 500 mA

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	< 200 Hz	< 200 Hz	< 200 Hz	< 200 Hz
Status indicator		Green LED	Green LED	Green LED	Green LED	Green LED
Protective circuit		Varistor, reverse polarity protection	Varistor, reverse polarity protection	Varistor, reverse polarity protection	Varistor, reverse polarity protection	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						
Ordering data		220 V DC	24 V AC	48...60 V AC	120 V AC	230 V AC
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 output variants DC 4 A



### 5 V DC



### 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 <sub>u</sub> = 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
Overvoltage category	III
Pollution degree	2

### Dimensions

	Screw connection	PUSH IN connection
Clamping range (nominal / min. / max.)	mm <sup>2</sup> 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		24 V DC
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

Ordering data		
Screw connection	Type	TOS 24VDC/24VDC 4A
	Order No.	1275100000
PUSH IN connection	Type	TOP 24VDC/24VDC 4A
	Order No.	1254880000

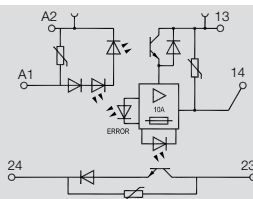
### Note

## 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

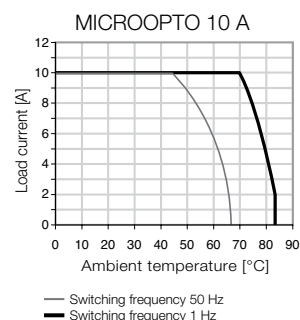
### 24 V DC / 5-33 V DC 10 A



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.



### Technical data

Control side	
Rated control voltage	24 V DC $\pm 20\%$
Power rating	400 mW
making voltage	> 18 V
Dropout voltage	< 13 V
Input frequency	50 Hz
Status indicator	Error LED red; Status LED green
Protective circuit	Varistor, reverse polarity protection
Load side	
Solid-state type	POWER-MOS-FET transistor
Rated switching voltage	5...33 V DC
Rated switching current	10 A
Voltage drop at max. load	approx. 100 mV
Leakage current	< 1 mA
Short-circuit-proof / Protective circuit	Yes (conditional 4h / current limiting < 200 A) / Varistor, Current sensor
Switch-on delay / Switch-off delay	typical. 250 $\mu$ s / typical. 700 $\mu$ s
Continuous current	10 A
Pulse loading, max. current	
Load category	LC A
General data	
Alarm contact	5...48 V DC / 0.1 A
Ambient temperature	-25 °C...+60 °C
Storage temperature	-40 °C...+80 °C
Flammability class UL 94	V-0
Humidity	40°C / 93% rel. humidity, no condensation
Approvals	GL; GOSTME25; UL; CE
Standards	EN 50178, GL 2003-VI-Abs. 9, IEC 62314, UL508
Insulation coordination (EN 50 178)	
Rated voltage	300 V
Rated impulse withstand voltage	4 kV (1.2 / 50 $\mu$ s)
Clearance and creepage distances for control/load side	> 3 mm
Overvoltage category	III
Pollution degree	2

Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup>
Length x width x height	mm

**Note**

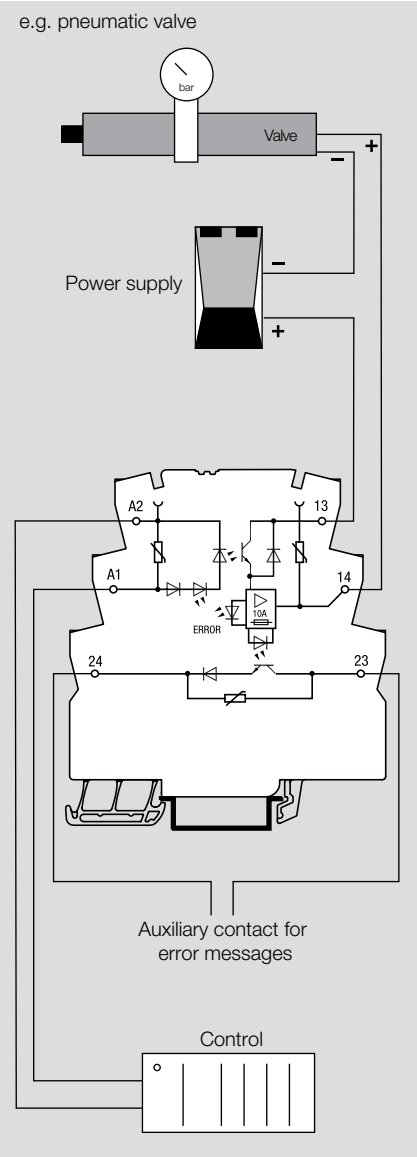
### Ordering data

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	

Type	Qty.	Order No.
MOS 24VDC/5-33VDC 10A	1	8937940000



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

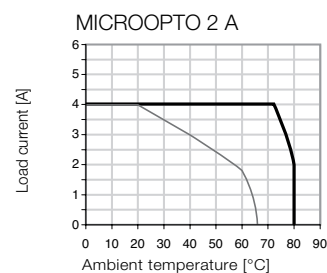
- Only 6 mm width
- Plug-in cross-connection
- PE connection direct to mounting rail
- Status display when error in output

8...30 V DC 2 A



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.



## Technical data

Control side	
Rated control voltage	24 V DC ±20 %
Power rating	0.1...2 W
making voltage	> 13.8 V
Dropout voltage	< 13.6 V
Input frequency	100 Hz
Protective circuit	Varistor, reverse polarity protection
Load side	
Solid-state type	Intelligent POWER MOS-FET
Rated switching voltage	8...30 V DC
Rated switching current	2 A @ 55 °C
Voltage drop at max. load	≤ 50 mV
Leakage current	< 50 µA
Short-circuit-proof / Protective circuit	Yes (12 h) / Varistor
Switch-on delay / Switch-off delay	0.1 ms / < 0.5 ms
Continuous current	2 A
Pulse loading, max. current	
Load category	LC A
Status indicator	Error indication LED red; status LED green
General data	
Ambient temperature	-20...s. Derating curve
Storage temperature	-40 °C...+80 °C
Flammability class UL 94	V-0
Humidity	5...95 % RH
	T <sub>u</sub> = 55 °C, no condensation
Approvals	GL; UL; CE
Standards	EN 50178, GL 2003-VI-Abs. 9, IEC 62314, UL508
Insulation coordination (EN 50 178)	
Rated voltage	300 V
Rated impulse withstand voltage	4 kV (1.2 / 50 µs)
Clearance and creepage distances for control/load side	> 3 mm
Overvoltage category	III
Pollution degree	2

Dimensions	
Clamping range (nominal / min. / max.)	mm <sup>2</sup>
Length x width x height	mm
Note	

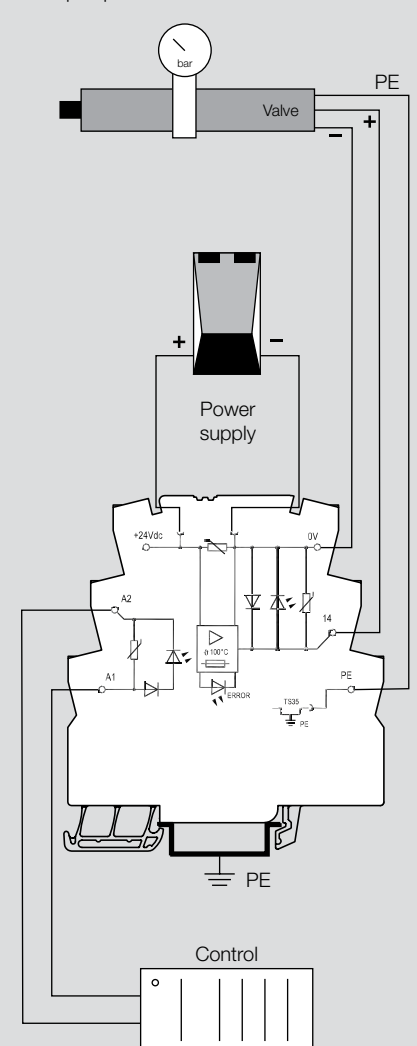
## Ordering data

Connection system	Screw connection
Note	

Screw connection	
2.5 / 0.5 / 4	
90 / 6.1 / 98	

Type	Qty.	Order No.
MOS 24VDC/8-30VDC 2A	1	8937970000

## Example: pneumatic valve



## Accessories



### Plug-in cross-connection

Type	No. of poles	Order No.
<b>yellow</b>		
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
<b>red</b>		
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
<b>blue</b>		
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
<b>black</b>		
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

## General data – TERMOPTO / MICROOPTO

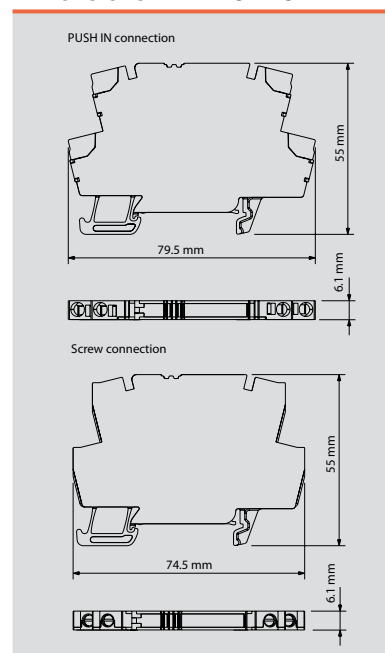
### Technical data

Conductor		Screw-connection
Solid H07V-U	mm <sup>2</sup>	0.5 ... 4.0
Stranded H07V-K	mm <sup>2</sup>	0.5 ... 2.5
"f" with wire end ferrules to DIN 46228-1	mm <sup>2</sup>	0.5 ... 1.5
"f" with wire end ferrules with plastic collar	mm <sup>2</sup>	0.5 ... 1.5
Max. clamping range	mm <sup>2</sup>	0.13 ... 4.0
Plug gauge to IEC 60947-1	size	A 3
<b>General technical data</b>		
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

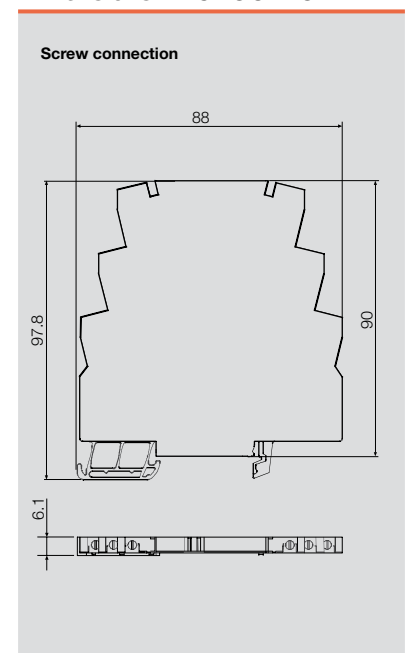
### Other accessories

Type	Order No.
<b>Supply terminals</b>	
MOS SUPPLY	8973460000
MOS FEED THROUGH	8973450000
<b>Markers</b>	
WS 12/6 12 x 6 mm	1609900000
<b>Labels, Lasermark</b>	
LM MT 300 15/6 ge 484 labels/sheet	1686360000
<b>Screwdriver</b>	
SD 0.6 x 3.5 x 100	9008330000
<b>Cross-connector for plugging into the clamping point</b>	
QB 75/6.2/15	0535200000
<b>Coloured insulating profile for QB</b>	
ISPF QB75 black	0526700000
ISPF QB75 blue	0526780000
ISPF QB75 red	0526760000
<b>End bracket</b>	
WEW 35/2	1061210000

### 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

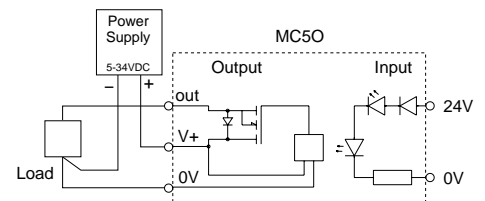
Surge Strength	4000V
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### General

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 <sup>2</sup>
	Flexible 0.5 to 2.5mm <sup>2</sup>
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

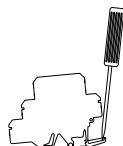
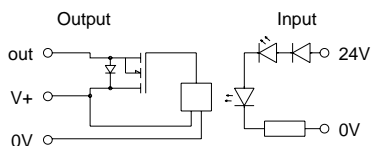
To be installed in a metal enclosure.

## Ordering Information

Ordering Information		
Solenoid Driver 5-34 V, 10A		7901690001
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

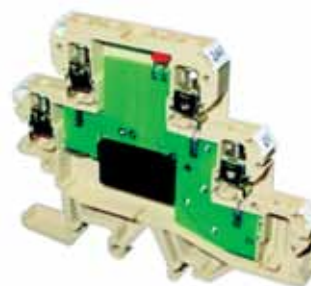
## Mounting



# MC50 Solenoid Driver 1A up to 200Vdc

## MC50 - Solenoid Driver 1A up to 200Vdc

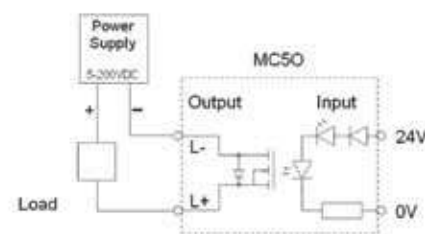
- 1A@5-200Vdc resistive & inductive switch
- High Voltage DC Switch
- Ultra compact 6mm wide 'Combifoot' housing suits TS32 & TS35
- 2500V isolation
- LED relay state indication
- Input diode protection



## 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
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 <sup>2</sup>
	Flexible	0.5 to 2.5mm <sup>2</sup>

## Installation



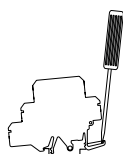
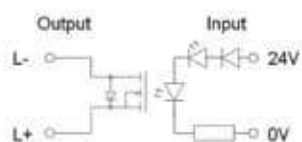
**General**  
**Warning:** to be installed/maintained by qualified personnel as per instructions, or module safety may be compromised.  
 Design for IEC664 Installation Category II use.  
**Cleaning**  
 Wipe only with a damp cloth (remove power before cleaning).  
**Location**  
 To be installed in 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	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

## Circuit diagram

## Mounting



# MC50 Dual Voltage

## MC50 - Dual Voltage

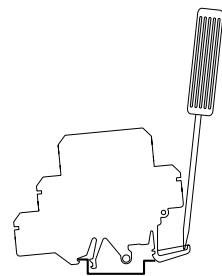
- Dual Input Voltage Solid State Relay
- Ultra compact 6mm wide 'Combifoot' housing suits TS32 & TS35
- 4000Vrms isolation
- LED relay state indication
- Input diode protection



## 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 <sup>2</sup>		
		Flexible	0.5 to 2.5mm <sup>2</sup>		

## 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.

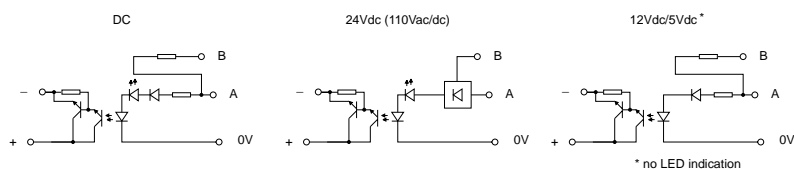
**Cleaning**  
Wipe only with a damp cloth (remove power before cleaning).

**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





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Fax: (02) 4272 2957

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