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Machinery



Process



Energy



Transportation



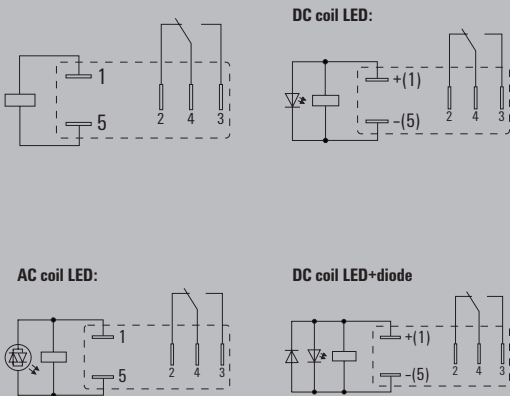
Device Manufacturers

DRI relay
1 CO contact, AC/DC coil

- Robust industrial plug-in connections
- Optional: latching / spring return operable test button with coloured control voltage identification (AC coil: red / DC coil: blue)
- Optional: Mechanical switch position indication (for version with test button)
- Optional: Bright status LED (AC coil: red / DC coil: green)
- Optional: free-wheeling diode



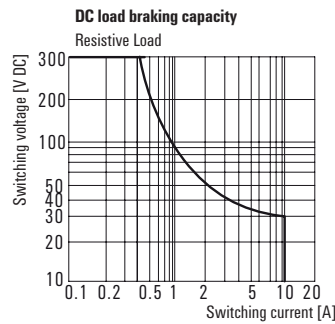
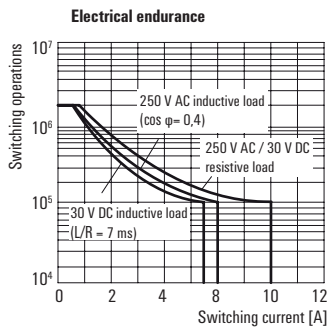
Circuit diagram



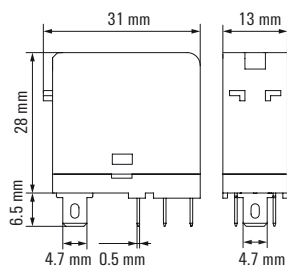
Technical data

Output	
Rated switching voltage / Continuous current	250 V AC / 10 A
Max. switching voltage, AC	250 V
Inrush current	
Min. switching power	10 mA @ 12 V, 100 mA @ 5 V
DC / AC Switching capacity (resistive), max.	240 W @ 24 V / 2500 VA
Contact material	AgNi
Mechanical service life	10 x 10 ⁶ switching cycles
Max. switching frequency at rated load	0.1 Hz
Rated data	
Ambient temperature (operational)	-40 °C...55 °C
Storage temperature	-40 °C...85 °C
Humidity	35...85 % rel. humidity, no condensation
Approvals	CE, cURus
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	5 kV (1.2/50 µs)
Dielectric strength input - output	5 kV _{eff} / 1min
Dielectric strength of neighbouring contacts	
Dielectric strength to mounting rail	
Creepage and clearance distance input - output	≥ 4 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Depth x width x height	see dimensioned drawing
Plug-in connection	
see dimensioned drawing	
Note	

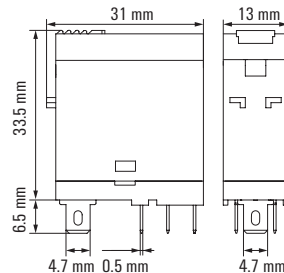
Applications



Dimensioned drawing without test button



Dimensioned drawing with test button



DRI relay
1 CO contact, AC/DC coil

Type code	DRI									
Type	DRI									
Type of construction	314	1 CO contact								
	424	2 CO contacts								
Coil voltage	012	12 V DC	524	24 V AC						
	024	24 V DC	615	115 V AC						
	048	48 V DC	730	230 V AC						
	110	110 V DC								
LED	L (Red for AC coil; green for DC coil)									
Test lever including mechanical status indicator	T (Red lever for AC coil; blue lever for DC coil)									
Free wheeling diode	D (DC coil only)									

Ordering data

	12 V DC 1CO	24 V DC 1CO	48 V DC 1CO	110 V DC 1CO
Input				
Rated control voltage	12 V DC	24 V DC	48 V DC	110 V DC
Rated current AC / DC	/ 44,4 mA	/ 21,8 mA	/ 11,2 mA	/ 4,8 mA
Power rating	530 mW	530 mW	530 mW	530 mW
Pull-in/drop-out voltage, typ.	9 V / 1.8 V DC	18 V / 3.6 V DC	36 V / 7.2 V DC	82.5 V / 16.5 V DC
Pull-in/drop-out current, typ.				
Output				
Switch-on delay	≤ 15 ms	≤ 15 ms	≤ 15 ms	≤ 15 ms
Switch-off delay	≤ 10 ms	≤ 10 ms	≤ 10 ms	≤ 10 ms

Ordering data

	12 V DC 1CO	24 V DC 1CO	48 V DC 1CO	110 V DC 1CO
Standard	Type DRI314012	Type DRI314024	Type DRI314048	Type DRI314110
	Order No. 7760056296	Order No. 7760056297	Order No. 7760056298	Order No. 7760056299
with LED	Type DRI314012L	Type DRI314024L	Type DRI314048L	Type DRI314110L
	Order No. 7760056303	Order No. 7760056304	Order No. 7760056305	Order No. 7760056306
with LED + freewheel diode	Type DRI314012LD	Type DRI314024LD	Type DRI314048LD	Type DRI314110LD
	Order No. 7760056310	Order No. 7760056311	Order No. 7760056312	Order No. 7760056313
with test button + LED	Type DRI314012LTD	Type DRI314024LTD	Type DRI314048LTD	Type DRI314110LTD
+ Free-wheel diode	Order No. 7760056314	Order No. 7760056315	Order No. 7760056316	Order No. 7760056317

Note

Ordering data

	24 V AC 1CO	115 V AC 1CO	230 V AC 1 CO
Input			
Rated control voltage	24 V AC	115 V AC	230 V AC
Rated current AC / DC	50 mA /	9.3 mA /	4,9 mA /
Power rating	1.2 VA	1.1 VA	1.1 VA
Pull-in/drop-out voltage, typ.	19.2 V / 7.2 V AC	92 V / 34.5 V AC	184 V / 69 V AC
Pull-in/drop-out current, typ.			
Output			
Switch-on delay	≤ 15 ms	≤ 15 ms	≤ 15 ms
Switch-off delay	≤ 10 ms	≤ 10 ms	≤ 10 ms

Ordering data

	24 V AC 1CO	115 V AC 1CO	230 V AC 1 CO
Standard	Type DRI314524	Type DRI314615	Type DRI314730
	Order No. 7760056300	Order No. 7760056301	Order No. 7760056302
with LED	Type DRI314524L	Type DRI314615L	Type DRI314730L
	Order No. 7760056307	Order No. 7760056308	Order No. 7760056309
with test button + LED	Type DRI314524LT	Type DRI314615LT	Type DRI314730LT
	Order No. 7760056318	Order No. 7760056319	Order No. 7760056320
	Type Order No.	Type Order No.	Type Order No.

Note

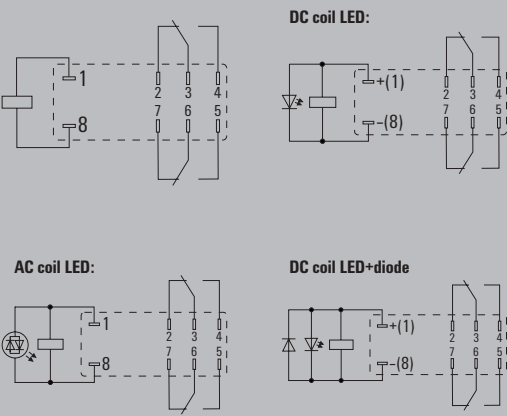


DRI relay
2 CO contacts, AC/DC coil

- Robust industrial plug-in connections
- Optional: latching / spring return operable test button with coloured control voltage identification (AC coil: red / DC coil: blue)
- Optional: Mechanical switch position indication (for version with test button)
- Optional: Bright status LED (AC coil: red / DC coil: green)
- Optional: free-wheeling diode



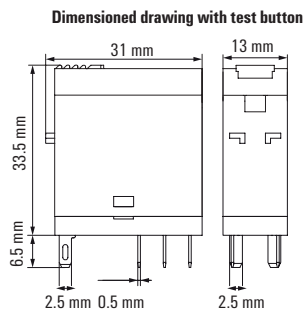
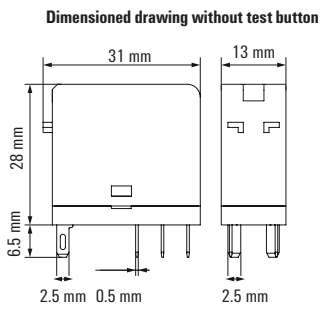
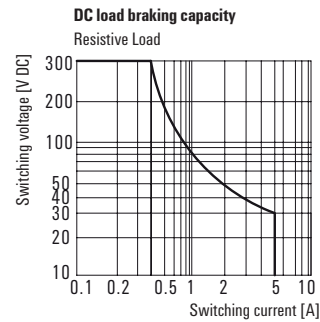
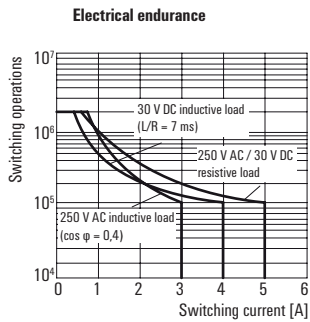
Circuit diagram



Technical data

Output	
Rated switching voltage / Continuous current	250 V AC / 5 A
Max. switching voltage, AC	250 V
Inrush current	
Min. switching power	10 mA @ 12 V, 100 mA @ 5 V
DC / AC Switching capacity (resistive), max.	150 W @ 24 V / 1250 VA
Contact material	AgNi
Mechanical service life	10 x 10 ⁶ switching cycles
Max. switching frequency at rated load	0.1 Hz
Rated data	
Ambient temperature (operational)	-40 °C...55 °C
Storage temperature	-40 °C...85 °C
Humidity	35...85 % rel. humidity, no condensation
Approvals	CE, cURus
Insulation coordination (EN 50178)	
Rated voltage	300 V
Impulse withstand voltage	5 kV (1.2/50 µs)
Dielectric strength input - output	5 kV _{eff} / 1min
Dielectric strength of neighbouring contacts	1.5 kV _{eff} / 1min.
Dielectric strength to mounting rail	
Creepage and clearance distance input - output	≥ 4 mm
Overvoltage category	III
Pollution degree	2
Dimensions	
Depth x width x height	see dimensioned drawing
Plug-in connection	
Depth x width x height	see dimensioned drawing
Note	

Applications



DRI relay
2 CO contacts, AC/DC coil

Type code	DRI									
Type	DRI									
Type of construction	314	1 CO contact								
	424	2 CO contacts								
Coil voltage	012	12 V DC	524	24 V AC						
	024	24 V DC	615	115 V AC						
	048	48 V DC	730	230 V AC						
	110	110 V DC								
LED	L (Red for AC coil; green for DC coil)									
Test lever including mechanical status indicator	T (Red lever for AC coil; blue lever for DC coil)									
Free wheeling diode	D (DC coil only)									

Ordering data

	12 V DC 2CO	24 V DC 2CO	48 V DC 2CO	110 V DC 2CO
Input				
Rated control voltage	12 V DC	24 V DC	48 V DC	110 V DC
Rated current AC / DC	/ 44,4 mA	/ 21,8 mA	/ 11,2 mA	/ 4,8 mA
Power rating	530 mW	530 mW	530 mW	530 mW
Pull-in/drop-out voltage, typ.	9 V / 1.8 V DC	18 V / 3.6 V DC	36 V / 7.2 V DC	82.5 V / 16.5 V DC
Pull-in/drop-out current, typ.				
Output				
Switch-on delay	≤ 15 ms	≤ 15 ms	≤ 15 ms	≤ 15 ms
Switch-off delay	≤ 10 ms	≤ 10 ms	≤ 10 ms	≤ 10 ms

Ordering data				
Standard	Type	DRI424012	DRI424024	DRI424048
	Order No.	7760056321	7760056322	7760056323
with LED	Type	DRI424012L	DRI424024L	DRI424048L
	Order No.	7760056328	7760056329	7760056330
with LED + freewheel diode	Type	DRI424012LD	DRI424024LD	DRI424048LD
	Order No.	7760056335	7760056336	7760056337
with test button + LED	Type	DRI424012LTD	DRI424024LTD	DRI424048LTD
+ Free-wheel diode	Order No.	7760056339	7760056340	7760056341

Note				

Ordering data

	24 V AC 2CO	115 V AC 2CO	230 V AC 2CO
Input			
Rated control voltage	24 V AC	115 V AC	230 V AC
Rated current AC / DC	50 mA /	9.3 mA /	4,9 mA /
Power rating	1.2 VA	1.1 VA	1.1 VA
Pull-in/drop-out voltage, typ.	19.2 V / 7.2 V AC	92 V / 34.5 V AC	184 V / 69 V AC
Pull-in/drop-out current, typ.			
Output			
Switch-on delay	≤ 15 ms	≤ 15 ms	≤ 15 ms
Switch-off delay	≤ 10 ms	≤ 10 ms	≤ 10 ms

Ordering data			
Standard	Type	DRI424524	DRI424615
	Order No.	7760056325	7760056326
with LED	Type	DRI424524L	DRI424615L
	Order No.	7760056332	7760056333
with test button + LED	Type	DRI424524LT	DRI424615LT
	Order No.	7760056343	7760056344
	Type		
	Order No.		

Note			



Accessories for DRI relays

- Base, logical construction, input and output isolated
- Terminal-rail unlocking using screwdriver
- Wide assortment of functional modules

Technical data

Output

Rated switching voltage
250 V
Max. switching voltage, AC
250 V
Continuous current
12 A

Rated data

Ambient temperature (operational)
-40 °C...70 °C
Storage temperature
-40 °C...85 °C
Approvals
CE; cURus

Insulation coordination

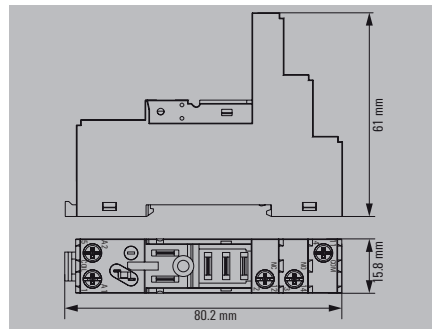
Protection degree
IP20
Creepage and clearance distance input - output
≥ 3 mm
Dielectric strength input - output
4 kV_{eff} / 1 min.
Dielectric strength of neighbouring contacts
2.5 kV_{eff} / 1 min.
Impulse withstand voltage
4.8 kV (1.2/50 µs)

Connection data

Clamping range (nominal / min. / max.)
1.5 / 0.25 / 4 mm²
Tightening torque
0.5...0.8 Nm
Stripping length, rated connection
8 mm

Note

Base with clamping yoke connection, 1 CO contact



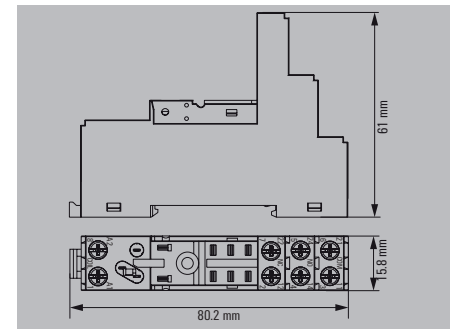
250 V AC
250 V
12 A

-40 °C...70 °C
-40 °C...85 °C
CE; cURus

IP20
≥ 3 mm
4 kV_{eff} / 1 min.
4.8 kV (1.2/50 µs)

1.5 / 0.25 / 4 mm²
0.5...0.8 Nm
8 mm

Base with clamping yoke connection, 2 CO contacts



250 V AC
250 V
8 A

-40 °C...70 °C
-40 °C...85 °C
CE; cURus

IP20
≥ 3 mm
4 kV_{eff} / 1 min.
2.5 kV_{eff} / 1 min.
4.8 kV (1.2/50 µs)

1.5 / 0.25 / 4 mm²
0.5...0.8 Nm
8 mm

Ordering data

	Base on TS35 DIN rail
Note	

Type	Qty.	Order No.
SDI 1CO	10	7760056350

Type	Qty.	Order No.
SDI 2CO	10	7760056351

Accessories

LED / functional modules

- Free-wheeling diode
- LED 6 - 24 V DC green and freewheeling diode
- LED 24 - 60 V DC green and free-wheeling diode
- LED 110 - 230 V DC green and free-wheeling diode
- LED 6 - 24 V UC green
- LED 24 - 60 V UC green
- LED 110 - 230 V UC green
- RC element 110 - 230 V AC; 4.7 kΩ / 10 nF
- RC element 110 - 230 V AC; 100 Ω / 220 nF and LED green

Retaining clip

Plastic retaining clip

Miscellaneous accessories

- Screwdriver, insulated PH1 SlimLine
- Screwdriver, insulated PH1

Type	Qty.	Order No.
RIM 1 6/230VDC	10	7760056169
RIM 2 6/24VDC	10	7760056015
RIM 2 24/60VDC	10	7760056016
RIM 2 110/230VDC	10	7760056017
RIM 3 6/24VUC	20	7940018457
RIM 3 24/60VUC	10	7760056018
RIM 3 110/230VUC	20	7940018455
RIM 3 110/230VAC	10	7760056014
RIM 3 110/230VAC LED	10	7760056045
SDI CLIP	10	7760056352
SDI SL/PH 1	1	1318330000
SDIK PH1	1	9008570000

Type	Qty.	Order No.
RIM 1 6/230VDC	10	7760056169
RIM 2 6/24VDC	10	7760056015
RIM 2 24/60VDC	10	7760056016
RIM 2 110/230VDC	10	7760056017
RIM 3 6/24VUC	20	7940018457
RIM 3 24/60VUC	10	7760056018
RIM 3 110/230VUC	20	7940018455
RIM 3 110/230VAC	10	7760056014
RIM 3 110/230VAC LED	10	7760056045
SDI CLIP	10	7760056352
SDI SL/PH 1	1	1318330000
SDIK PH1	1	9008570000

Note

Accessories for DRI relays

- Flat design
- Pre-assembled plastic retaining clip
- Terminal-rail unlocking using screwdriver
- Touch-safe leaf spring connection

Technical data

Output	
Rated switching voltage	250 V AC
Max. switching voltage, AC	250 V
Continuous current	12 A
Rated data	
Ambient temperature (operational)	-40 °C...70 °C
Storage temperature	-40 °C...85 °C
Approvals	CE
Insulation coordination	
Protection degree	IP20
Creepage and clearance distance input - output	≥ 3 mm
Dielectric strength input - output	4 kV _{eff} / 1 min.
Dielectric strength of neighbouring contacts	
Impulse withstand voltage	4.8 kV (1.2/50 µs)
Connection data	
Clamping range (nominal / min. / max.)	1.5 / 0.5 / 2.5 mm ²
Tightening torque	0.5...0.8 Nm
Stripping length, rated connection	8 mm
Note	

Ordering data

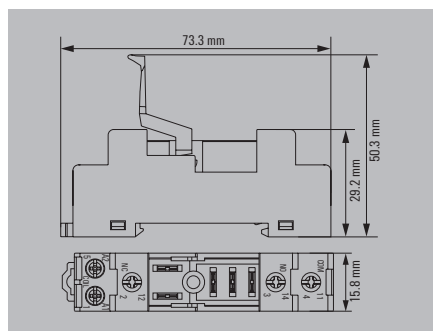
	Base on TS35 DIN rail
Note	

Accessories

Miscellaneous accessories	
	Screwdriver, insulated PH1 SlimLine
	Screwdriver, insulated PH1
Insulated cable connector	
	Fork-type cable lug 0.5mm ² - 1mm ²
	Fork-type cable lug 1.5mm ² - 2.5mm ²
	Fork-type cable lug 0.5mm ² - 1mm ²
	Fork-type cable lug 1.5mm ² - 2.5mm ²

Note

Base with pressure clamping plate, 1 CO contact



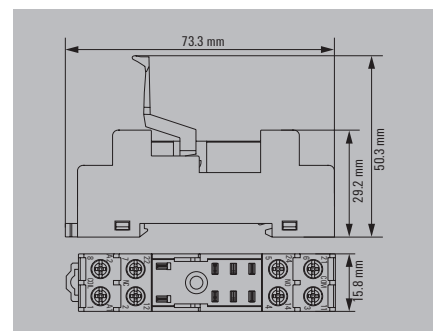
Output		
Rated switching voltage	250 V AC	
Max. switching voltage, AC	250 V	
Continuous current	12 A	
Rated data		
Ambient temperature (operational)	-40 °C...70 °C	
Storage temperature	-40 °C...85 °C	
Approvals	CE	
Insulation coordination		
Protection degree	IP20	
Creepage and clearance distance input - output	≥ 3 mm	
Dielectric strength input - output	4 kV _{eff} / 1 min.	
Dielectric strength of neighbouring contacts		
Impulse withstand voltage	4.8 kV (1.2/50 µs)	
Connection data		
Clamping range (nominal / min. / max.)	1.5 / 0.5 / 2.5 mm ²	
Tightening torque	0.5...0.8 Nm	
Stripping length, rated connection	8 mm	
Note		

Type	Qty.	Order No.
SDI 1CO F ECO	10	7760056348

Type	Qty.	Order No.
SDI SL/PH 1	1	1318330000
SDIK PH1	1	9008570000
KQIG-M3/-1	100	1492520000
KQIG-M3/-2,5	100	1492600000
KQIG-M3,5/-1	100	1492530000
KQIG-M3,5/-2,5	100	1492610000

Note

Base with pressure clamping plate, 2 CO contacts



Output		
Rated switching voltage	250 V AC	
Max. switching voltage, AC	250 V	
Continuous current	8 A	
Rated data		
Ambient temperature (operational)	-40 °C...70 °C	
Storage temperature	-40 °C...85 °C	
Approvals	CE	
Insulation coordination		
Protection degree	IP20	
Creepage and clearance distance input - output	≥ 3 mm	
Dielectric strength input - output	4 kV _{eff} / 1 min.	
Dielectric strength of neighbouring contacts	2.5 kV _{eff} / 1 min.	
Impulse withstand voltage	4.8 kV (1.2/50 µs)	
Connection data		
Clamping range (nominal / min. / max.)	1.5 / 0.5 / 2.5 mm ²	
Tightening torque	0.5...0.8 Nm	
Stripping length, rated connection	8 mm	
Note		

Type	Qty.	Order No.
SDI 2CO F ECO	10	7760056349

Type	Qty.	Order No.
SDI SL/PH 1	1	1318330000
SDIK PH1	1	9008570000
KQIG-M3/-1	100	1492520000
KQIG-M3/-2,5	100	1492600000

Note

