DLR
industrial power relay

- High current switching - 6,600VA max.
- Good inrush current resistance
- Wide range AC coils
- DIN Rail mounting options
- Screw, plug-in or PCB terminals
- Applications include heaters, HVAC and motor controls
- RoHS Compliant

Contacts

Contact number & arrangement		SPST-NO (1 Form A); DPST-NO (2 Form A)
Contact material		AgCdO, $AgSnO_2$ (Special Order only)
Max. switching voltage	AC/DC	250VAC, 30VDC
Min. breaking capacity	W	0.5W (AgCdO), 1W ($AgSnO_2$)
Rated load (resistive - cos φ=1)	AC1	SPST-NO, DPST-NO PCB : 20A/220VAC
		SPST-NO: 30A/220VAC / DPST-NO: 25A/220VAC
Max. switching power		4,400VA (PCB types); 5,500VA (DPST-NO); 6,600VA (SPST-NO)
Initial resistance		≤ 50mΩ, max. at 1A/24VDC
Max. operating frequency at rated load	AC1	1,800 cycles per hour

Coil

Rated voltage	AC	6...200/240V
	DC	6...100V
Must release voltage		≥0.15Un
Operating range of supply voltage		See coil tables 1 & 2

Insulation

Insulation resistance		≥1000MΩ at 500VDC, 50%RH
Impulse withstand voltage		Between coil and contact: 10,000V
Dielectric strength	coil to contact	4,000Vrms, 1min (50/60Hz)
	contacts of the same pole	2,000Vrms, 1min (50/60Hz)
	contacts of different poles (DPST-NO)	2,000Vrms, 1min (50/60Hz)

General Data

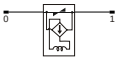
Operating time (typical)	mS	≤ 30
Release time (typical)	mS	≤ 30
Electrical Life	ops	1 x 10^5 at 1,800 ops/hour at rated load (Fig 1.)
Mechanical life	ops	5 x 10^6 at 1,800 ops/hour
Dimensions	L x W x H	various - see drawings (Fig 2.)
Weight		approx. 90g (3.17oz) quick connect (fast-on) type
		approx. 100g (3.52oz) PCB terminal type
		approx. 120g (4.23oz) Screw terminal type
Ambient temperature		-40 to 85°C
Shock resistance		approx. 100G mechanical durabilty, 10G malfunction durability
Vibration resistance		DA 1.5mm 10-55Hz

Specifications are subject to change without notice. E&OE.

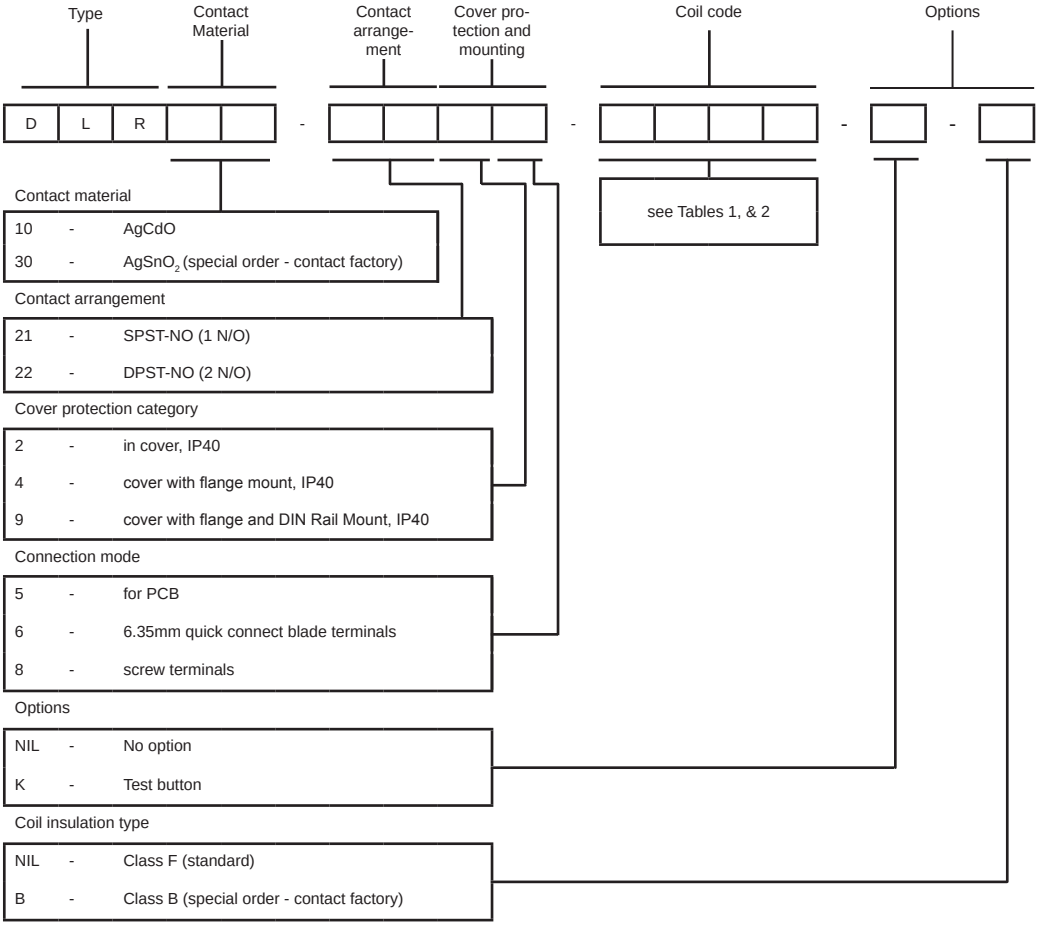
DC Coil Data (at 23°C) — Table 1

Coil Voltage Code	Nominal Voltage (V DC)	Coil Resistance (Ω) ±10%	Power Consumption approx. (mW)	Must Operate Voltage max. (V DC)	Must Release Voltage min. (V DC)	Max. Allowable Voltage (V DC)
1006	6	18.9	1.9W	4.5	0.9	6.6
1012	12	75		9	1.8	13.2
1024	24	303		18	3.6	26.4
1048	48	1220		36	7.2	52.8
1100	100	5260		75	15.0	110.0

AC Coil Data (at 23°C) — Table 2

Coil Voltage Code	Nominal Voltage (V AC)	Rated Coil Current (mA) +15/-20%	Power Consumption approx. (mW)	Must Operate Voltage max. (V AC)	Must Release Voltage min. (V AC)	Max. Allowable Voltage (V AC)
5012	12	142	1.7 to 2.5VA (60Hz) 	9	0.9	13.2
5024	24	71		18	1.8	26.4
5050	50	34		37.5	3.6	55
5120	100 to 120	17 to 20.4		75	18	132
5230	200 to 240	8.5 to 10.2		150	36	264

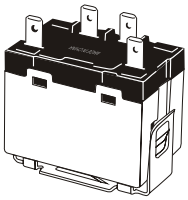
Ordering codes

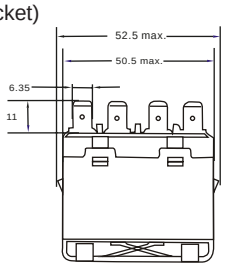


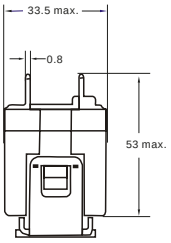
Specifications are subject to change without notice. E&OE.

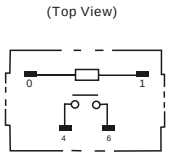
Overall Dimensions and Wiring Diagrams — Fig. 2

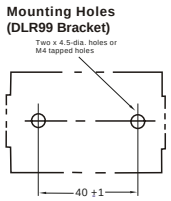
DLR10-2126 / DLR10-2126-K
(shown with DLR99 mounting bracket)



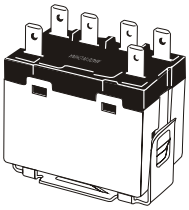


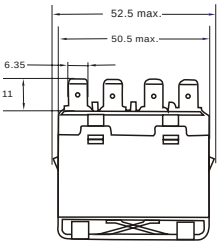


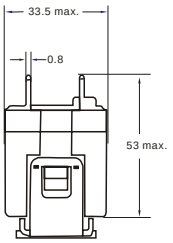


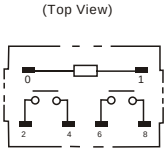


DLR10-2226 / DLR10-2226-K
(shown with DLR99 mounting bracket)

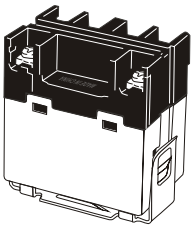


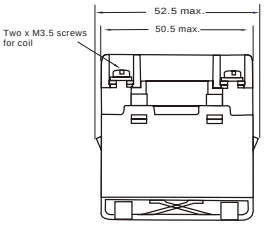


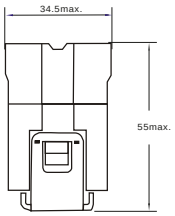


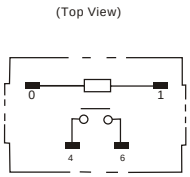


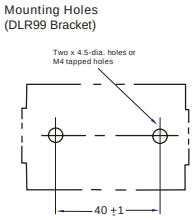
DLR10-2128 / DLR10-2128-K
(shown with DLR99 mounting bracket)



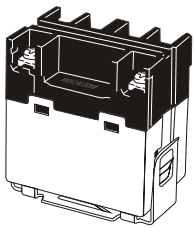


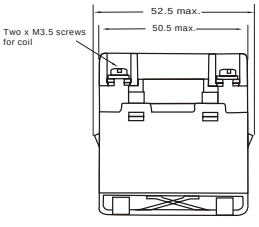


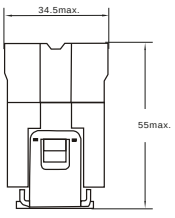


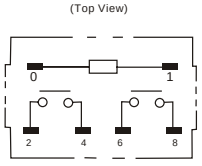


DLR10-2228 / DLR10-2228-K
(shown with DLR99 mounting bracket)









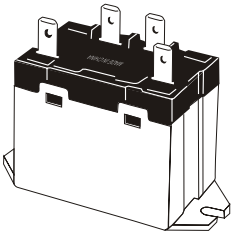
All dimensions in mm

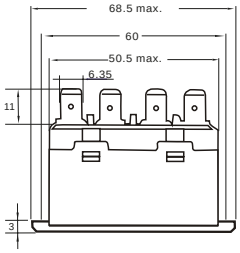
Specifications are subject to change without notice. E&OE.

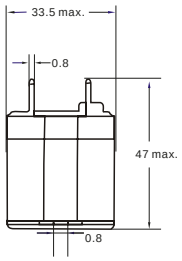
Specifications are subject to change without notice. E&OE.

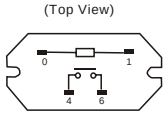
Overall Dimensions and Wiring Diagrams — Fig. 2 (cont.)

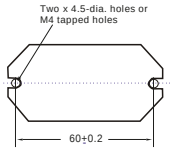
DLR10-2146 / DLR10-2146-K



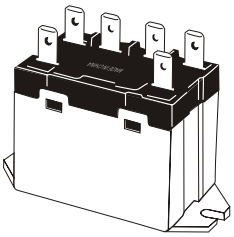


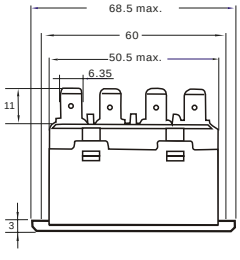


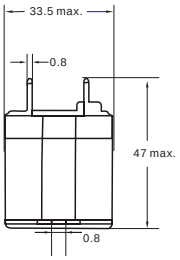


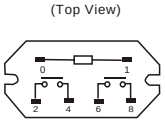


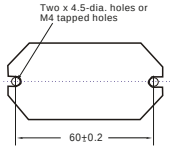
DLR10-2246 / DLR10-2246-K



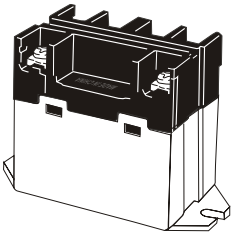


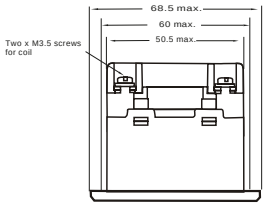


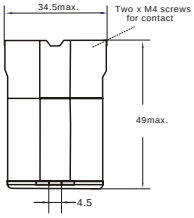


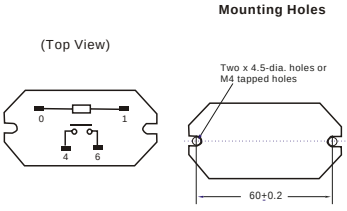


DLR10-2148 / DLR10-2148-K

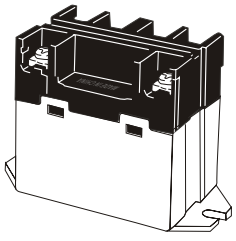


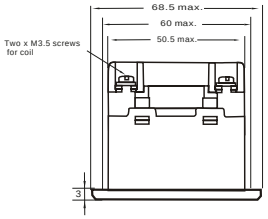


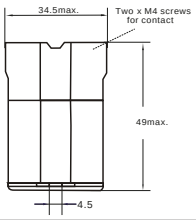


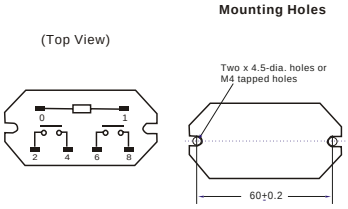


DLR10-2248 / DLR10-2248-K







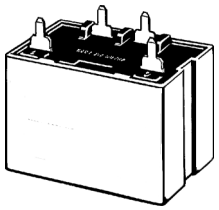


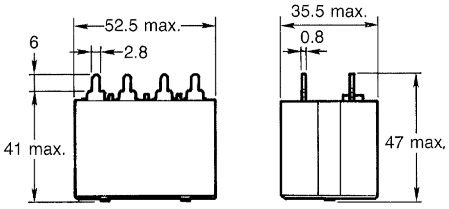
All dimensions in mm

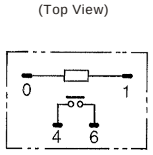
Specifications are subject to change without notice. E&OE.

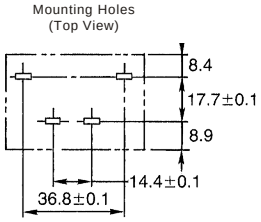
Overall Dimensions and Wiring Diagrams — Fig. 2 (cont.)

DLR10-2125
(for PCB mounting)

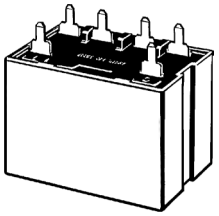


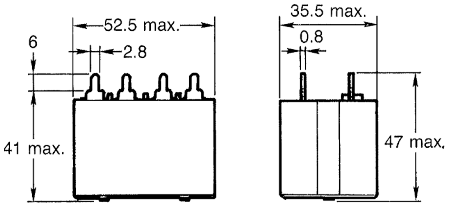


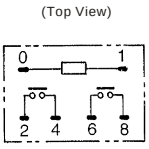


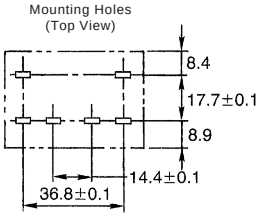


DLR10-2225
(for PCB mounting)

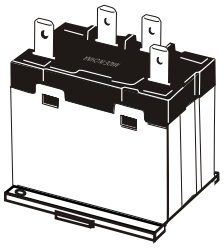


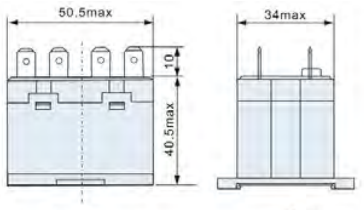


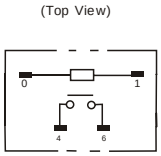




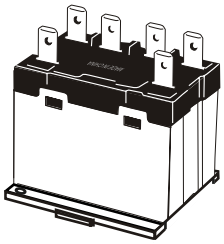
DLR10-2196
(for DIN rail mounting)

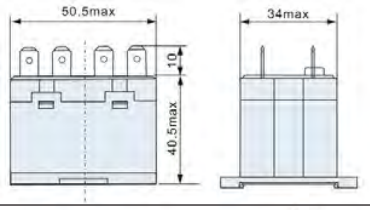


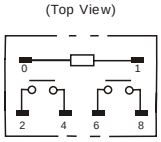




DLR10-2296
(for DIN rail mounting)







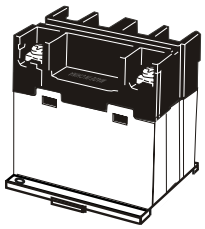
All dimensions in mm

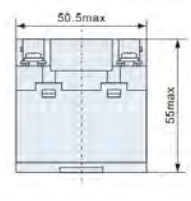
Specifications are subject to change without notice. E&OE.

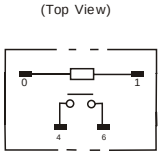
Specifications are subject to change without notice. E&OE.

Overall Dimensions and Wiring Diagrams — Fig. 2 (cont.)

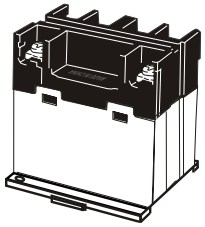
DLR10-2198 / DLR10-2198-K
(for DIN rail mounting)

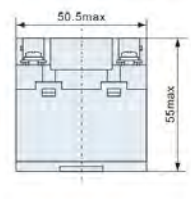


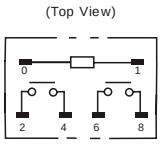




DLR10-2298 / DLR10-2298-K
(for DIN rail mounting)



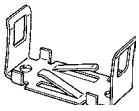


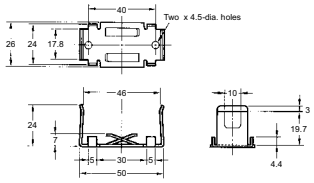


All dimensions in mm

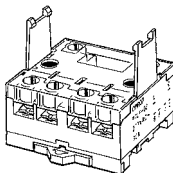
Accessories / Overall Dimensions — Fig. 3

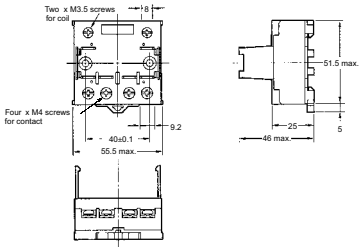
DLR99 Mounting Bracket



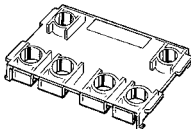


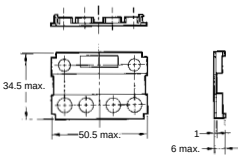
DLR7LF-06 DIN Rail Socket





DLR7LF-C Finger protection cover





All dimensions in mm

Specifications are subject to change without notice. E&OE.