

- Integral LED (Red for AC, Green for DC coils)
- Universal 24VAC/DC coil version (Yellow LED)
- Locking test lever standard
- Back EMF diode standard for DC Coils
- Welded internal connections for greater reliability



Contacts

Contact arrangement	DPDT (2CO, 2 Form C)	
Contact material	AgNi90/10 +0.2um Au, AgNi90/10+5um Au	
Max. switching voltage	AC/DC	277VAC, 30VDC
Rated load (resistive, cos φ=1)	AC1	10A/250VAC
	DC1	10A/30VDC
Initial contact resistance	≤ 100mΩ	

Coil

Rated Voltage (see page 2)	DC	6... 110V
	AC 50/60Hz	6... 240V
	AC/DC	24V (universal AC or DC)
Operating range	DC: 0.9W / AC: 1.2VA	

Insulation

Insulation resistance	≥1000MΩ at 500VDC, 50%RH	
	coil to contact	2500Vrms, 1min, 1mA
Dielectric strength	coil to contact	1000Vrms, 1min, 1mA
	between adjacent contacts	2000Vrms, 1min, 1mA

General Data

Operate / bounce time	typical	≤ 10ms / ≤ 3ms
Release / bounce time	typical	≤ 6ms / ≤ 1ms
Electrical life	1 x 10 ⁵ (at rated load)	
Mechanical life	1 x 10 ⁷ (max. switching rate = 1200ops/hr)	

Environmental

Ambient temperature	operating	-40 to 70°C
	storage	-40 to 80°C (no icing)
Shock resistance	Functional: 10g 11ms	
Vibration resistance	DA 1.0mm 10-55Hz	
Dimensions	L x W x H	27 x 21 x 36.7mm (excluding terminals)
Weight	approx.	40g

Ordering Code

D Y N - 1 3 - 3 0 2 4 -

Series

Contact material

- 1: AgNi90/10 + 0.2um Au
- 3: AgNi90/10 + 5um Au

Mounting & terminations (IP40)

- 3: for plug-in sockets only
- 5: for PCB mounting only

Coil Code

- 1: DC Coil with diode
 - 3: AC 50/60Hz Coil
 - U: Universal AC/DC Coil
- see coil tables
1, 2 & 3 for full code

NIL: Standard part, blue top, with test lever and LED.

B: No test lever, but with LED.

Standard Features

	LED Indication	Test Lever
AC Coil	Red	Red
DC Coil	Green	Blue
24VAC/DC Coil	Yellow	Grey
Back EMF diode for all DC Coils		

DC Coil Data (Green LED)
Table 1

Coil code	Nominal voltage (VDC)	Coil resistance (Ω) ±10% (at 23°C)	Power consumption (mW)	Must operate voltage max. (VDC)	Must release voltage min. (VDC)	Max. allowable voltage (VDC)
1006	6	40	900	4.5	0.6	6.6
1012	12	160	900	9.0	1.2	13.2
1024	24	640	900	18.0	2.4	26.4
1048	48	2600	900	36.0	4.8	52.8
1110	110	13600	900	82.5	11.0	121.0

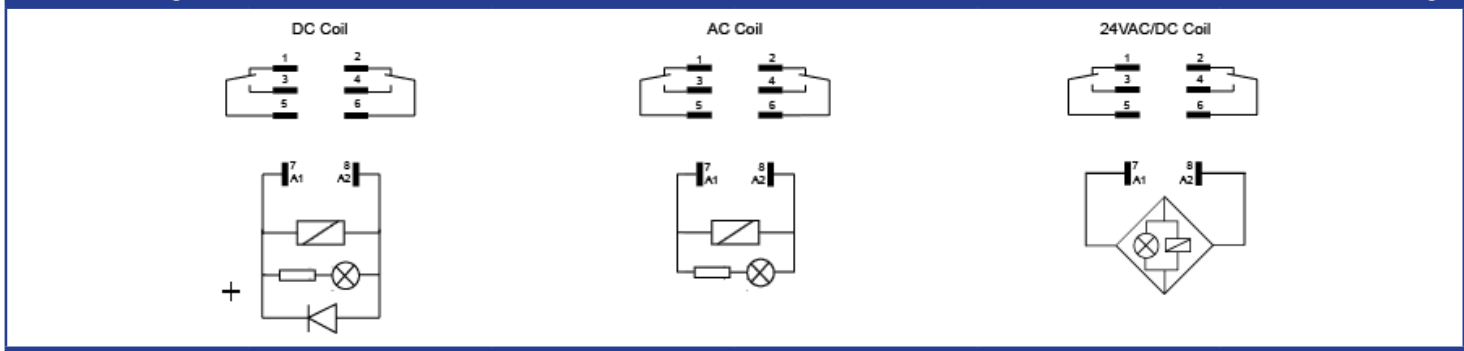
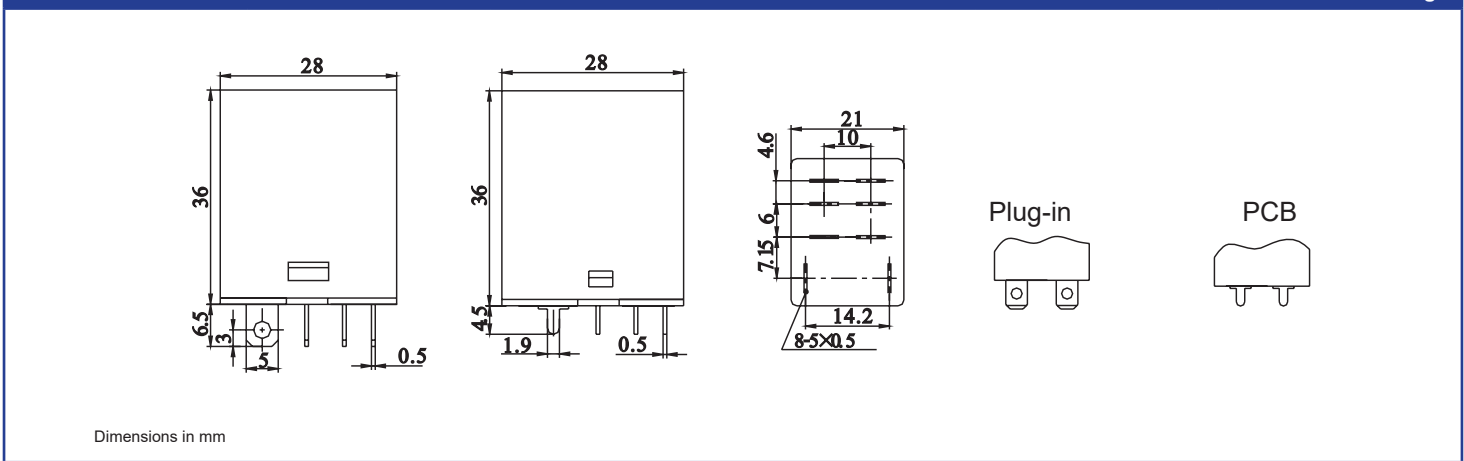
AC 50/60Hz Coil Data (Red LED)
Table 2

Coil code	Nominal voltage (VAC)	Coil resistance (Ω) ±10% (at 23°C)	Power consumption (VA)	Must operate voltage max. (VAC)	Must release voltage min. (VAC)	Max. allowable voltage (VAC)
3006	6	10	1.2	4.8	1.8	6.6
3012	12	40	1.2	9.6	3.6	13.2
3024	24	158	1.2	19.2	7.2	26.4
3048	48	640	1.2	38.4	14.4	52.8
3110	110	3450	1.2	88.0	33.0	121.0
3120	120	4200	1.2	96.0	36.0	132.0
3230	220/230	15400	1.2	176.0	66.0	242.0
3240	240	16800	1.2	192.0	72.0	264.0

Universal AC/DC coil data* (Yellow LED)
Table 3


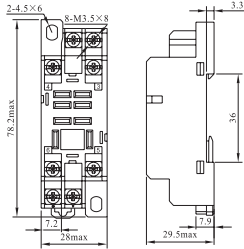
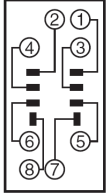

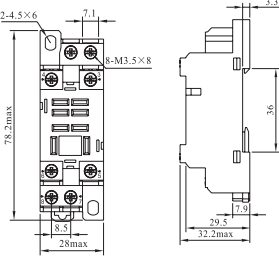
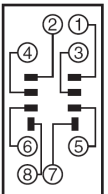

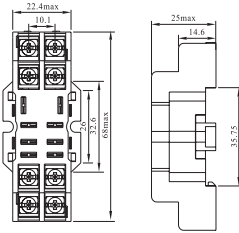
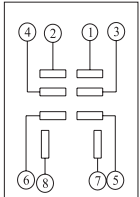

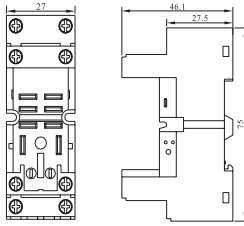
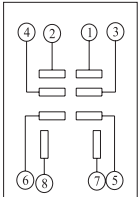
Coil code	Nominal voltage (VAC or VDC)	Coil resistance (Ω) ±10% (at 23°C)	Power consumption (W)	Must operate voltage max.	Must release voltage min.	Max. allowable voltage
U024	24	495.6	0.9	18.0	2.4	26.4

* Bridge rectifier circuit with LED indication. See wiring diagram below.

Connection Diagram
Fig 1

Dimensions
Fig 2


Mounting Sockets for DYN relays

Fig. 3

<p>D13F-2Z-C1</p> 	<p>Rated voltage : 250VAC Rated current : 10A Insulation voltage : ≥ 3KV Socket material : PA66-S250F6 (V1/V0) Contacts spring material : QSn6.5-0.1</p>		
<p>D13F-2Z-C2</p> 	<p>Options: Steel Hold down spring: JH-006RC</p>		
<p>D13F-2Z-C3</p> 	<p>Rated voltage : 250VAC Rated current : 10A Insulation voltage : ≥ 3KV Socket material : PA66+GF (V1/V0) Contacts spring material : QSn6.5-0.1</p> <p>Options: Steel Hold down spring: JH-006RC</p>		
<p>D13F-2Z-C4</p> 	<p>Rated voltage : 300VAC Rated current : 10A Insulation voltage : ≥ 3KV Socket material : PA66+GF (V1/V0) Contacts spring material : QSn6.5-0.1</p> <p>Options: Steel Wire Hold down spring: JH-36MS-B Plastic Ejector Clip: JH-36PS-A</p> <p>Plug-in Accessory Modules: DM41G-BK Green LED 6/24VDC DM41R-BK Red LED 6/24VDC DM61G-BK Green LED 6/24VAC/DC with diode DM63G-BK Green LED 110/230VAC/DC DM63R-BK Red LED 110/230VAC/DC DM91G-BK Green LED 6/24VAC/DC with varistor DM93G-BK Green LED 110/230VAC/DC with varistor</p> <p>Other modules upon request.</p>		

Dimensions in mm