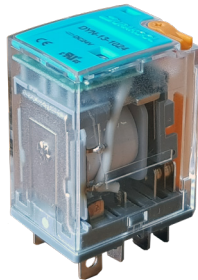


NOT FOR NEW DESIGN



- 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 |

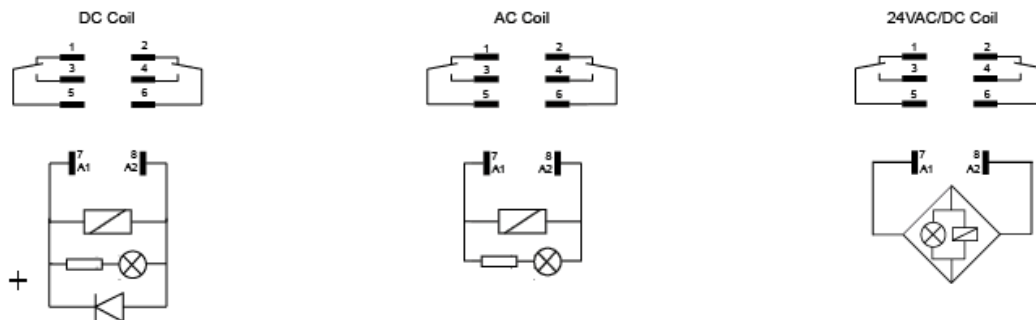
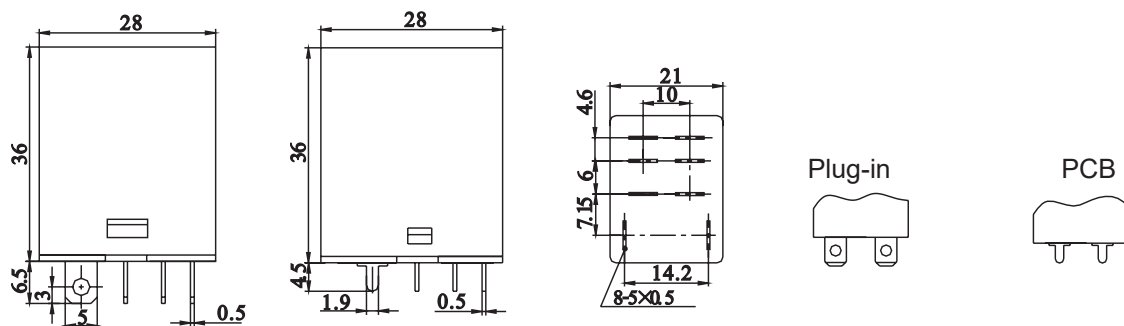
AC 50/60Hz Coil Data (Red LED)
Table 2

| 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


Dimensions in mm

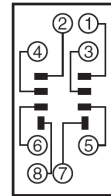
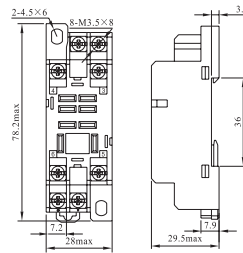
Mounting Sockets for DYN relays

Fig. 3

D13F-2Z-C1



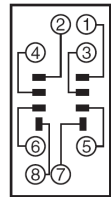
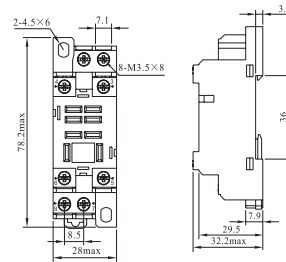
Rated voltage : 250VAC
Rated current : 10A
Insulation voltage : $\geq 3KV$
Socket material : PA66-S250F6 (V1/V0)
Contacts spring material : QSn6.5-0.1



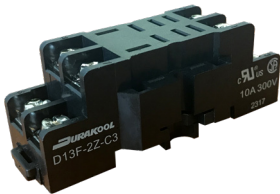
D13F-2Z-C2



Options:
Steel Hold down spring: JH-006RC

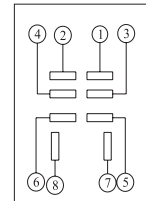
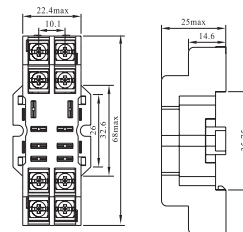


D13F-2Z-C3

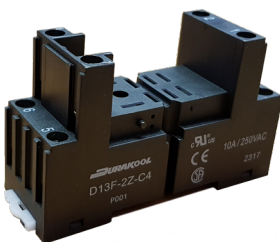


Rated voltage : 250VAC
Rated current : 10A
Insulation voltage : $\geq 3KV$
Socket material : PA66+GF (V1/V0)
Contacts spring material : QSn6.5-0.1

Options:
Steel Hold down spring: JH-006RC



D13F-2Z-C4

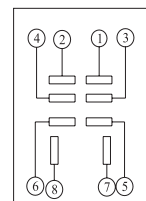
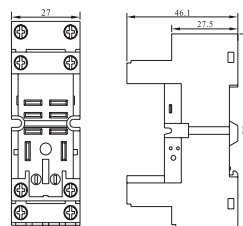


Rated voltage : 300VAC
Rated current : 10A
Insulation voltage : $\geq 3KV$
Socket material : PA66+GF (V1/V0)
Contacts spring material : QSn6.5-0.1

Options:
Steel Wire Hold down spring: JH-36MS-B
Plastic Ejector Clip: JH-36PS-A

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

Other modules upon request.



Dimensions in mm