

# DM85 inrush

## pcb power relay

# DURAKOOL



- miniature pcb power relay
- Up to 80A inrush (20ms)
- AgSnO<sub>2</sub> contacts
- RoHS Compliant



### Contacts

|                                  |                             |                                 |
|----------------------------------|-----------------------------|---------------------------------|
| Contact number & arrangement     | SPST-NO (1 N/O)             |                                 |
| Contact material                 | AgSnO <sub>2</sub>          |                                 |
| Max. switching voltage           | AC/DC                       | 440VAC                          |
| Max. breaking capacity           | AC1                         | 4000VA                          |
| Min. switching current / voltage | 10mA/10VDC                  |                                 |
| Max. inrush current              | 80A (20ms)                  |                                 |
| Rated load                       | AC1                         | 16A, 250VAC (600 ops/hr)        |
|                                  | AC15                        | 3A, 120V / 1.5A, 240V (B300)    |
|                                  | AC3                         | 750W (single phase motor)       |
|                                  | DC1                         | 16A, 24VDC                      |
|                                  | DC13                        | 0.22A, 120V / 0.1A, 250V (R300) |
| Initial resistance               | ≤ 100mΩ, max. at 0.1A/24VDC |                                 |

### Coil

|                                   |                  |              |
|-----------------------------------|------------------|--------------|
| Rated voltage                     | DC               | 3...110V     |
| Must release voltage              | DC               | ≥ 0.1Un      |
| Operating range of supply voltage | See coil table 1 |              |
| Rated power consumption           | DC               | 0.4...0.48mW |

### Insulation (EN 60664-1)

|                             |                              |                |
|-----------------------------|------------------------------|----------------|
| Insulation rated voltage    | AC                           | 400VAC         |
| Rated surge voltage         | 4000V <sub>1.2 / 50 μs</sub> |                |
| Overvoltage category        | III                          |                |
| Insulation pollution degree | 3                            |                |
| Dielectric strength         | coil to contact              | 5000Vrms, 1min |
|                             | contact to contact           | 1000Vrms, 1min |
| Contact - coil distance     | clearance                    | ≥10mm          |
|                             | creepage                     | ≥10mm          |

### General Data

|                                  |              |  |
|----------------------------------|--------------|--|
| Operating/release time (typical) | mS           | ≤ 8ms/3ms  |
| Electrical Life                  | ops          | >10 <sup>5</sup> (16A 250VAC) (AC1 / DC1 @ 600 ops/hr) |
| Mechanical life                  | ops          | ≥ 3 x 10 <sup>7</sup> (72000 ops/hr)                   |
| Dimensions                       | L x W x H    | 29 x 12.7 x 15.7mm                                     |
| Weight                           | 14g          |  |
| Ambient temperature              | storage      | -40 to 85°C  |
|                                  | operating    | -40 to 85°C  |
| Shock resistance                 | 30g          |  |
| Vibration resistance             | 10g 10~150Hz |  |

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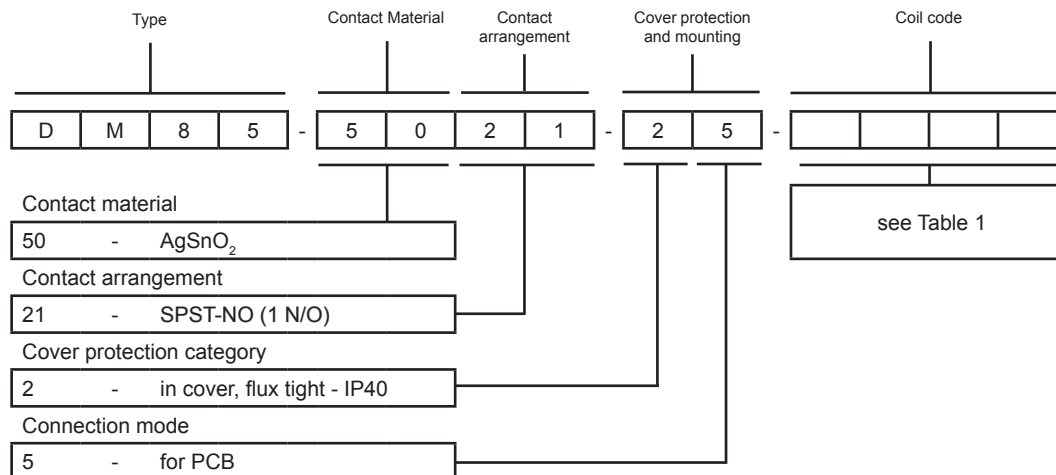
Coil Data (DC voltage 400 ...480mW)

Table 1

| Coil Voltage Code | Nominal Voltage (VDC) | Coil Resistance ( $\Omega$ ) $\pm 10\%$ | Must release voltage min. (VDC) | Max. operating voltage (VDC) |
|-------------------|-----------------------|---|---------------------------------|------------------------------|
| 1003              | 3                     | 22                                      | 2.1                             | 7.6                          |
| 1005              | 5                     | 60                                      | 3.5                             | 12.7                         |
| 1006              | 6                     | 90                                      | 4.2                             | 15.3                         |
| 1009              | 9                     | 200                                     | 6.3                             | 22.9                         |
| <b>1012</b>       | 12                    | 360                                     | 8.4                             | 30.6                         |
| 1018              | 18                    | 710                                     | 12.6                            | 45.9                         |
| <b>1024</b>       | 24                    | 1440                                    | 16.8                            | 61.2                         |
| 1036              | 36                    | 3140                                    | 25.2                            | 91.8                         |
| 1048              | 48                    | 5700                                    | 33.6                            | 122.4                        |
| 1060              | 60                    | 7500                                    | 42.0                            | 153.0                        |
| 1110              | 110                   | 25200                                   | 77.0                            | 280.0                        |

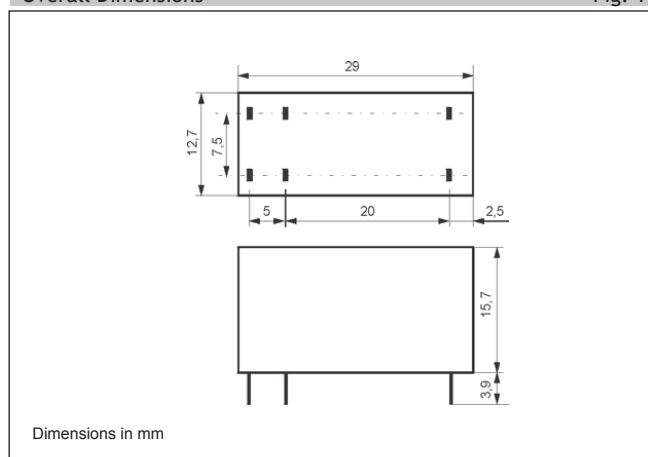
Note: Parameters at 20°C

## Ordering codes



Overall Dimensions

Fig. 1



Connection diagram

Fig. 2

