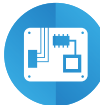


# Subminiature DIL relays 2 A



Electronic  
circuit boards



Hi-Fi systems



Printers



Toys



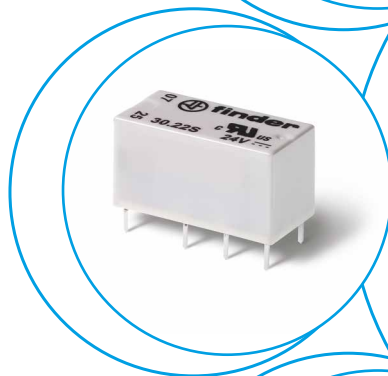
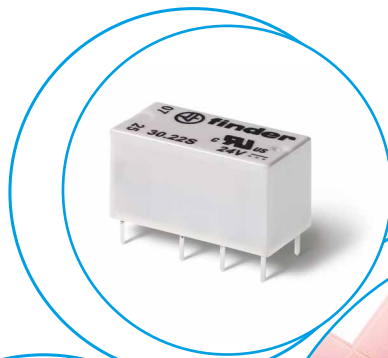
Medical and  
dentistry



Hoists and  
cranes



Door and  
gate openers





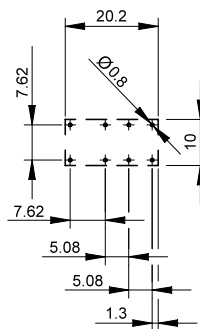
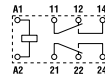
**Printed circuit mount  
2 A signal relay**

- 2 Pole changeover contacts Low level switching capability
- Subminiature - industry standard DIL package
- Sensitive DC coil - 200 mW
- Wash tight: RT III
- Cadmium Free contact material

**30.22**



- Low coil power
- Au clad contacts
- PCB mount



Copper side view

For outline drawing see page 5

**Contact specification**

|                                             |           |             |
|---------------------------------------------|-----------|-------------|
| Contact configuration                       |           | 2 CO (DPDT) |
| Rated current/Maximum peak current          | A         | 2/3         |
| Rated voltage/<br>Maximum switching voltage | V AC      | 125/250     |
| Rated load AC1                              | VA        | 125         |
| Rated load AC15 (230 V AC)                  | VA        | 25          |
| Single phase motor rating (230 V AC)        | kW        | —           |
| Breaking capacity DC1: 24/110/220 V         | A         | 2/0.3/—     |
| Minimum switching load                      | mW (V/mA) | 10 (0.1/1)  |
| Standard contact material                   |           | AgNi + Au   |

**Coil specification**

|                                   |                 |                          |
|-----------------------------------|-----------------|--------------------------|
| Nominal voltage (U <sub>N</sub> ) | V AC (50/60 Hz) | —                        |
|                                   | V DC            | 5 - 6 - 9 - 12 - 24 - 48 |
| Rated power AC/DC                 | VA (50 Hz)/W    | —/0.2                    |
| Operating range                   | AC              | —                        |
|                                   | DC              | See table page 5         |
| Holding voltage                   | AC/DC           | —/0.35 U <sub>N</sub>    |
| Must drop-out voltage             | AC/DC           | —/0.05 U <sub>N</sub>    |

**Technical data**

|                                                  |        |                        |
|--------------------------------------------------|--------|------------------------|
| Mechanical life AC/DC                            | cycles | —/10 · 10 <sup>6</sup> |
| Electrical life at rated load AC1                | cycles | 100 · 10 <sup>3</sup>  |
| Operate/release time                             | ms     | 6/2                    |
| Insulation between coil and contacts (1.2/50 μs) | kV     | 1.5                    |
| Dielectric strength between open contacts        | V AC   | 750                    |
| Ambient temperature range                        | °C     | -40...+85              |
| Environmental protection                         |        | RT III                 |

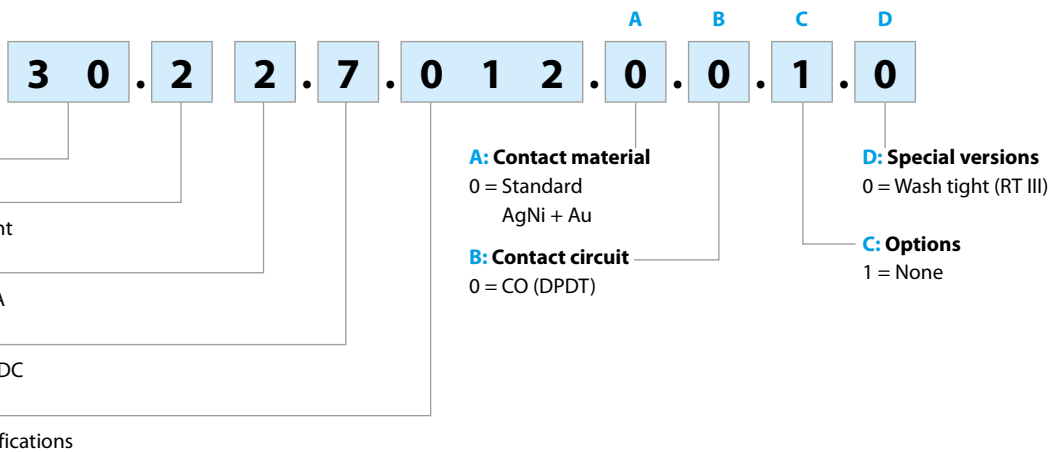
**Approvals** (according to type)



## Ordering information

Example: 30 series PCB relay, 2 CO (DPDT) - 2 A contacts, 12 V sensitive DC coil.

A



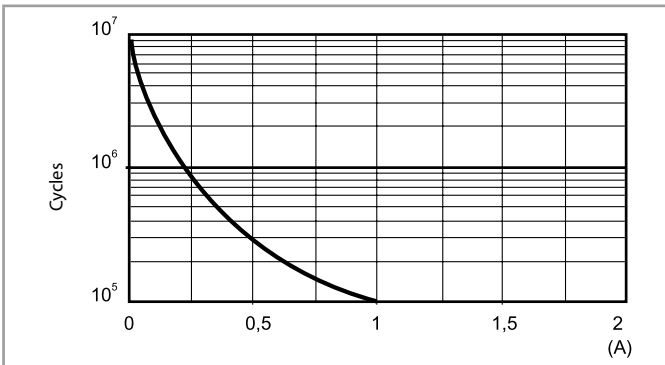
## Technical data

| Insulation according to EN 61810-1                 |                         |                     |                        |
|----------------------------------------------------|-------------------------|---------------------|------------------------|
| Nominal voltage of supply system                   | V AC                    | 230/400             | 120...240 single phase |
| Rated insulation voltage                           | V AC                    | 250                 | 125                    |
| Pollution degrees                                  |                         | 1                   | 2                      |
| Insulation between coil and contact set            |                         |                     |                        |
| Type of insulation                                 |                         | Basic               | Basic                  |
| Overvoltage category                               |                         | I                   | II                     |
| Rated impulse voltage                              | kV (1.2/50 µs)          | 1.5                 | 1.5                    |
| Dielectric strength                                | V AC                    | 1000                | 1000                   |
| Insulation between adjacent contacts               |                         |                     |                        |
| Type of insulation                                 |                         | Basic               | Basic                  |
| Overvoltage category                               |                         | I                   | II                     |
| Rated impulse voltage                              | kV (1.2/50 µs)          | 1.5                 | 1.5                    |
| Dielectric strength                                | V AC                    | 1500                | 1500                   |
| Insulation between open contacts                   |                         |                     |                        |
| Type of disconnection                              |                         | Micro-disconnection | Micro-disconnection    |
| Dielectric strength                                | V AC/kV (1.2/50 µs)     | 750/1               | 750/1                  |
| Other data                                         |                         |                     |                        |
| Bounce time: NO/NC                                 | ms                      | 1/3                 |                        |
| Vibration resistance (5...55)Hz: NO/NC             | g                       | 15/15               |                        |
| Shock resistance                                   | g                       | 16                  |                        |
| Power lost to the environment                      | without contact current | W                   | 0.2                    |
|                                                    | with rated current      | W                   | 0.4                    |
| Recommended distance between relays mounted on PCB | mm                      | ≥ 5                 |                        |

A

### Contact specification

F 30 - Electrical life (AC1) v contact current (125 V)



Note:  
The rated current of 2 A corresponds to the limiting continuous current.

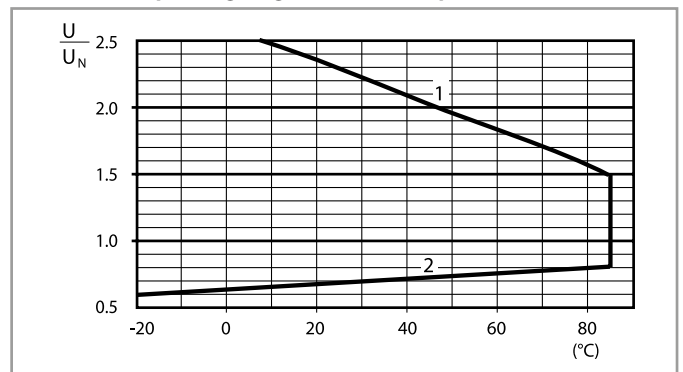
### Coil specifications

DC coil data - 0.2 W sensitive

| Nominal voltage<br>$U_N$ | Coil code | Operating range |           | Resistance<br>$R$ | Rated coil consumption<br>$I$ at $U_N$ |
|--------------------------|-----------|-----------------|-----------|-------------------|----------------------------------------|
|                          |           | $U_{min}$       | $U_{max}$ |                   |                                        |
| V                        |           | V               | V         | $\Omega$          | mA                                     |
| 5                        | 7.005     | 3.7             | 7.5       | 125               | 40                                     |
| 6                        | 7.006     | 4.5             | 9         | 180               | 33                                     |
| 9                        | 7.009     | 6.7             | 13.5      | 405               | 22                                     |
| 12                       | 7.012     | 8.4             | 18        | 720               | 16                                     |
| 24                       | 7.024     | 16.8            | 36        | 2880              | 8.3                                    |
| 48*                      | 7.048     | 36              | 72        | 10000             | 4.8                                    |

\* Rated power: 0.23 W

R 30 - DC coil operating range v ambient temperature



1 - Max. permitted coil voltage.  
2 - Min. pick-up voltage with coil at ambient temperature.

### Outline drawing

Type 30.22

