

## SOLUTIONS FOR ELECTRICAL PANELS AND INDUSTRIAL AUTOMATION

THINK  
INSIDE  
THE BOX



# TABLE OF CONTENTS

|    |                                                                                                                                                     |
|----|-----------------------------------------------------------------------------------------------------------------------------------------------------|
| 5  | 70 SERIES ELECTRONIC VOLTAGE MONITORING RELAYS                                                                                                      |
| 6  | 71 SERIES MONITORING RELAYS, TEMPERATURE SENSING RELAYS                                                                                             |
| 7  | 72 SERIES LEVEL CONTROL RELAYS FOR CONDUCTIVE LIQUIDS                                                                                               |
| 11 | 77 SERIES SOLID STATE RELAYS                                                                                                                        |
| 12 | 78 SERIES SWITCH MODE POWER SUPPLIES                                                                                                                |
| 13 | 80 SERIES MULTI-FUNCTION MODULAR TIMERS 17.5 MM                                                                                                     |
| 14 | 81 SERIES MULTI-FUNCTION MODULAR TIMER WITH START AND RESET FUNCTION                                                                                |
| 15 | 83 SERIES MULTI-FUNCTION MODULAR TIMERS 22.5 MM                                                                                                     |
| 16 | 84 SERIES SMARTimer DIGITAL MULTI-FUNCTION MODULAR TIMER WITH  |
| 17 | 85 SERIES PLUG-IN TIMERS                                                                                                                            |
| 18 | 86 SERIES PLUG-IN TIMER MODULES                                                                                                                     |
| 19 | 88 SERIES PLUG-IN OR PANEL MOUNT TIMERS                                                                                                             |
| 20 | TIMER-SOCKET COMPATIBILITY                                                                                                                          |
| 21 | 7E SERIES ENERGY METERS                                                                                                                             |
| 22 | 7P SERIES SURGE PROTECTION DEVICES (SPD)                                                                                                            |
| 25 | 30 SERIES SUBMINIATURE DIL RELAYS<br>32 SERIES SUBMINIATURE PCB RELAYS                                                                              |
| 26 | 34 SERIES MINIATURE PCB RELAYS (EMR OR SSR)<br>36 SERIES MINIATURE PCB RELAYS 10 A                                                                  |

|    |                                                                        |
|----|------------------------------------------------------------------------|
| 27 | 40 SERIES MINIATURE PCB AND PLUG-IN RELAYS 8 - 10 - 12 - 16 A          |
|    | 41 SERIES MINIATURE PCB RELAYS 3 - 5 - 8 - 12 - 16 A                   |
| 28 | 43 SERIES LOW PROFILE PCB RELAYS                                       |
|    | 45 SERIES MINIATURE PCB RELAYS + FASTON 250 16 A                       |
| 29 | 46 SERIES MINIATURE INDUSTRIAL RELAYS 8 - 16 A                         |
|    | 55 SERIES GENERAL PURPOSE RELAYS 7 - 10 A                              |
| 30 | 56 SERIES MINIATURE POWER RELAYS 12 A                                  |
|    | 60 SERIES GENERAL PURPOSE RELAYS 6 - 10 A                              |
| 31 | 62 SERIES POWER RELAYS 16 A                                            |
|    | 65 SERIES POWER RELAYS 20 - 30 A                                       |
| 32 | 66 SERIES POWER RELAYS 30 A                                            |
|    | 67 SERIES RELAYS FOR PV APPLICATIONS                                   |
| 33 | RB SERIES BISTABLE RELAYS 8A                                           |
|    | RR SERIES FAST ACTING RELAYS 8 A                                       |
| 34 | 38 SERIES RELAY INTERFACE MODULES (EMR OR SSR) 0.1 - 6 - 8 A           |
|    | 39 SERIES MasterINTERFACE - RELAY INTERFACE MODULES (EMR OR SSR) 2-6 A |
| 35 | 48 - 4C SERIES RELAY INTERFACE MODULES                                 |
| 36 | 58 SERIES RELAY INTERFACE MODULE                                       |
| 37 | SOCKET-RELAY COMPATIBILITY AND MODULES                                 |
| 40 | 50 SERIES FORCIBLY GUIDED CONTACTS RELAYS                              |
| 41 | 7S SERIES MODULES WITH FORCIBLY GUIDED CONTACTS                        |
| 42 | 34 - 41 SERIES SOLID STATE PCB RELAYS                                  |
| 44 | 7T SERIES PANEL THERMOSTATS AND THERMO-HYGROSTATS                      |
| 45 | 7H SERIES PANEL HEATERS                                                |
| 46 | 7F SERIES FILTER FANS                                                  |
| 47 | 7L SERIES PANEL LIGHT                                                  |



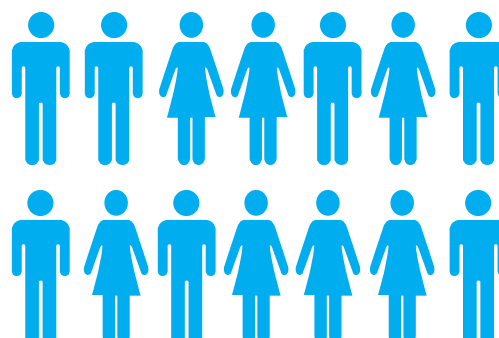
WE ARE THE  
BEATING HEART  
OF AUTOMATION

# ABOUT US

Founded in Italy in 1954, Finder has for decades built a wide range of electromechanical and electronic components for the residential, commercial and service sectors and for the industrial sector.

Today, thanks to a global vision, Finder distributes its products around the world through a network of 27 owned subsidiaries and more than 80 trade partnerships.

Finder is an international family made up of more than 1,300 individuals, all united by the same values and passion for our products.



## 12,500

Different products for all kinds of applications. Products at the heart of automation. Products that can respond to electricity; to the time of day; to temperature; water level and ambient light level

OUR PRODUCTS CARRY MORE CERTIFICATIONS THAN ANY OTHER RELAY MANUFACTURER



FINDER IS AN ITALIAN BRAND WITH A WORLDWIDE PRESENCE

4

PRODUCTION PLANTS IN EUROPE

27

SUBSIDIARIES

+80

OFFICIAL DISTRIBUTORS



# 70 SERIES

## ELECTRONIC VOLTAGE MONITORING RELAYS

FOR SINGLE OR THREE-PHASE APPLICATIONS, 1 OR 2 CONTACTS

### FEATURES

- Multi-function types enabling you to monitor undervoltage and overvoltage, phase rotation, phase loss, asymmetry and neutral loss
- Positive safety logic
- Coloured LEDs for clear & immediate visual indication
- Modular housing, 17.5, 22.5 or 35 mm wide
- 35 mm rail mount (EN 60715)

### APPLICATIONS

- This product range is ideal for voltage control in equipment and machinery such as motors, lifts, elevators, hydraulic pumps, air-conditioning systems and air treatment machines



Type 70.62



Type 70.42



SEE THE 70 SERIES  
TECHNICAL  
DATA SHEET

# 71 SERIES

## MONITORING RELAYS, TEMPERATURE SENSING RELAYS

FOR SINGLE OR THREE-PHASE APPLICATIONS, 1 OR 2 CONTACTS

### FEATURES

- Single and Multi-function types providing the flexibility of monitoring undervoltage, overvoltage, phase rotation, phase loss, phase asymmetry as well as precision voltage and current level detection, and relays for temperature sensing and control
- Positive safety logic
- Coloured LEDs for clear & immediate visual indication
- Modular housing, 17.5, 22.5 or 35 mm wide
- 35 mm carrier rail mount (EN 60715)

### APPLICATIONS

- This product range is ideal for voltage and current control, thermal protection in equipment and machinery such as motors, hydraulic pumps, air conditioning systems, lifts and air treatment machines



Type 71.51



Type 71.92



SEE THE 71 SERIES  
TECHNICAL  
DATA SHEET

# 72 SERIES

## LEVEL CONTROL RELAYS FOR CONDUCTIVE LIQUIDS

LEVEL CONTROL RELAYS FOR THE CONTROL OF CONDUCTIVE  
LIQUID LEVELS (72.01, 72.11)  
RELAY FOR ALTERNATING LOADS (72.42)

### FEATURES

- Emptying and filling functions
- LED indicator
- Reinforced insulation (6 kV - 1.2/50  $\mu$ s) between: supply and contacts, electrodes and supply, contacts and electrodes
- 35 mm rail mount (EN 60715)
- Controlling to a single level or between Min/Max Levels

### APPLICATIONS

- The main application of types 72.01 and 72.11 is monitoring conductive liquid levels
- Type 72.42 is ideal for alternating load sharing in applications with pumps, compressors, air conditioning and refrigeration units



Type 72.01



Type 72.42



SEE THE 72 SERIES  
TECHNICAL  
DATA SHEET

# 72 SERIES

## ACCESSORIES

### SENSORS FOR MONITORING CONDUCTIVE LIQUID LEVELS

A wide range of sensors make the Type 72.01/11 Level Control Relays ideal for different application requirements.

Normally 2 sensors are used to control to a single level, or 3 sensors are used to control between "Minimum" and "Maximum" levels.

If the tank is made of conductive material, it can be used directly as the "common" connection to B3.  
If you have to control two different levels in the same tank, simply connect 2 relays.



#### Type 72.01 - 72.02

Type 72.01 for liquid food  
Type 72.02 for liquids with high chlorine content (swimming pools)

Pre-wired cable-sensor with cable length 6 or 15 m (1.5 mm<sup>2</sup>), suitable for level monitoring in food applications or where there are high levels of chlorine, in wells and reservoirs not under pressure.



#### Type 072.51

Bipolar electrode holder, suitable for metal tanks with G3/8" coupling. The tank can be used as ground via the coupling by connecting it directly to the screw terminal (B3) of the relays 72.01/11.  
The total length of the probe is obtained by interconnecting multiple 072.500 electrodes.  
Maximum liquid temperature 100°C  
High-quality electrode material: stainless steel (AISI 304) with high corrosion resistance.



#### Type 072.31

One-pole sensor for wells and tanks. Maximum liquid temperature 80 °C  
High-quality electrode material: stainless steel (AISI 316L) with high corrosion resistance.  
Made of polypropylene for resistance to aqueous solutions of inorganic salts, acids, alkaline solutions, alcohol, some oils and washing solutions.  
Physiologically harmless, it is therefore especially suitable for use in the food and pharmaceutical industries.



#### Type 072.53

Three-pole electrode holder for wells and tanks.  
The total length of the sensor is obtained by interconnecting multiple electrodes 072.500 Maximum liquid temperature 70 °C  
High quality electrode material: stainless steel (AISI 303) with high corrosion resistance.



#### Type 072.11

Flood sensor, ideal for monitoring floor water levels and detecting condensation (for example in refrigerator aisles).



#### Type 072.503

Electrode separator - for use with the 072.53 holder and 072.500 electrodes.  
Maintains the safe separation of the electrodes - preventing them inadvertently touching each other.

# 72 SERIES

## FLOAT SWITCHES

FLOAT SWITCHES SUITABLE FOR FLUID LEVEL REGULATION

### FEATURES

- 1 changeover contact 10 A (8 A) 250 V AC
- Two or three watertight chambers
- Cable lengths 5 m, 10 m, 15 m or 20 m
- Can be used for both emptying and filling functions
- Also available with ACS-certified cable and plastics for food use

### APPLICATIONS

- The type 72.A1 is suitable for level control in drainage plants, grey water, food liquids and drinking water
- The type 72.B1 is designed for use in black water systems and pumping stations



Type 72.A1



Type 72.B1



# 77 SERIES

## SOLID STATE RELAYS (SSR)

MODULAR AND "HOCKEY PUCK"

### FEATURES

- "Zero-crossing" and "random switch-on" versions available
- High-speed switching with long electrical life
- Silent switching without electric arc or contact bounce
- Low consumption input circuit

### APPLICATIONS

- Particularly suitable for resistive loads and for industrial applications with high switching frequencies, and for loads with high inrush currents
- "Zero crossing" is particularly suitable for load switching in low-energy lamps (in particular for compact low-energy lamps - CFL), resistive loads, solenoids, contactor coils
- The random switch-on version is recommended for fast switching applications (in particular motor loads), connections where the input phase is different from the output phase, and for three-phase loads



Type 77.01



Type 77.31



Type 77.25



SEE THE 77 SERIES  
TECHNICAL  
DATA SHEET

# 78 SERIES

## SWITCH MODE POWER SUPPLIES

HIGH-PERFORMANCE SWITCH MODE POWER SUPPLIES SUITABLE FOR ELECTRICAL AND ELECTRONIC APPLICATIONS, WITH ADJUSTABLE OUTPUT VOLTAGE AND WITH OVERVOLTAGE AND SHORT CIRCUIT PROTECTION

### FEATURES

- High efficiency and reliability
- Compact size
- Low stand-by power consumption
- Front panel access for easy replacement of input fuse
- Separate alert for thermal protection

### APPLICATIONS

- Wherever there is a demand for energy
- The Finder range covers both industrial requirements (e.g. industrial automation, control and measurement systems) and building requirements (e.g. video door entry systems, pumps, DC motors, LED lighting, panels for interfacing BUS systems)



Type 78.12



Type 78.61



Type 78.2E



SEE THE 78 SERIES  
TECHNICAL  
DATA SHEET

# 80 SERIES

## MODULAR TIMERS

MULTI-FUNCTION MODULAR  
TIMERS 17.5 MM

### FEATURES

- Multi-function and Mono-function
- "PWM clever" technology for automatic recognition and regulation of the supply voltage, resulting in a wide nominal voltage range of 12 to 240 V AC or (non-polarised) DC
- Rated current up to 16 A; a version with 1 A SSR output is also available
- Six time scales from 0.1s to 24h
- High input/output isolation
- "Blade + cross" - both flat blade and crosshead screwdrivers can be used on rotary selectors and terminals
- 35 mm rail mount (EN 60715)
- Demount using either flat blade or crosshead screwdrivers

### APPLICATIONS

- Automatic door and gate openers, building automation, cranes, pump control panels and pumping units, automated awnings, blinds, shutters, elevators, control systems, timers and lighting controls



Type 80.01



Type 80.11



SEE THE 80 SERIES  
TECHNICAL  
DATA SHEET

# 81 SERIES

## MODULAR TIMERS

MULTI-FUNCTION MODULAR TIMERS  
WITH START AND RESET FUNCTION 17.5 MM

### FEATURES

- Multi-function (7 functions, 4 with supply start and 3 with control signal)
- Reset function
- "PWM clever" technology for automatic recognition and regulation of the supply voltage, resulting in a wide nominal voltage range of 12 to 240 V AC or (non-polarised) DC
- DIP switch for time and function controls
- Nominal current 16 A
- Six time scales from 0.1s to 10h

### APPLICATIONS

- Automatic door and gate openers, shipyards, drills, cleaners, sanders, control panels, distribution, timers and lighting controls, milk-processing machines, control panels, industrial sweepers



Type 81.01



SEE THE 81 SERIES  
TECHNICAL  
DATA SHEET

# 83 SERIES

## MODULAR TIMERS

MULTI-FUNCTION MODULAR  
TIMERS 22.5 MM

### FEATURES

- Multi-function and Mono-function types available
- "PWM clever" technology for automatic recognition of and regulation of the supply voltage, resulting in a wide nominal voltage range of 12 to 240 V AC or (non-polarised) DC
- Rated current up to 16 A
- Versions available with: 2 timed contacts, or 1 timed contact + 1 instantaneous contact: adjustable timing by means of an external potentiometer
- Eight time scales from 0.05s to 10 days
- High input/output isolation

### APPLICATIONS

- Packaging machines, pump control panels and pumping units, industrial refrigeration, discotheques, swimming pools, and fountains, industrial furnaces and ovens, confectionery machines, control panels and distribution, automatic car-washes



Type 83.02



Type 83.91



SEE THE 83 SERIES  
TECHNICAL  
DATA SHEET

# 84 SERIES

## SMARTimer, DIGITAL TIMER

DIGITAL MULTI-FUNCTION MODULAR TIMER  
WITH NFC

### FEATURES

- 2 in 1: two independent channels
- Two programming modes (via Smartphone with NFC technology or via joystick)
- Wide backlit LCD display
- Multi-function (the 25 functions for each channel can be combined between the two channels to create new functions)
- High precision and flexibility, adjustable in tenths of a second, seconds, minutes, hours
- 2 CO 16 A output contacts

### APPLICATIONS

- Industrial washing machines, timers and lighting controls, discotheques, swimming pools, and fountains, industrial furnaces and ovens, confectionery machines, punches, cleaners, planers and sanders, control panels, automatic car-washes



Type 84.02



SEE THE 84 SERIES  
TECHNICAL  
DATA SHEET

# 85 SERIES

## PLUG-IN TIMERS

MULTI-FUNCTION FOR USE WITH 94 SERIES SOCKETS

### FEATURES

- AC/DC supply non polarized
- Seven time scales from 0.05s to 100h
- Contacts with rated current up to 10 A
- 2, 3 or 4 changeover contacts
- Wide ambient temperature range: -20...+60°C

### APPLICATIONS

- Medical and dentistry, drying kilns, timers and lighting controls, elevators for workshops, galvanic treatment machines, panels for electrical distribution, control panels, industrial fans



Type 85.02



SEE THE 85 SERIES  
TECHNICAL  
DATA SHEET

# 86 SERIES

## PLUG-IN TIMER MODULES

MULTI-FUNCTION FOR USE WITH 90 SERIES 94 SERIES SOCKETS

### FEATURES

- Wide supply voltage range
- Seven time scales from 0.05s to 100h
- LED indication

### APPLICATIONS

- Machines for paper processing, printing machines, machines for ceramics, packaging machines, wood processing machines, milk-processing machines, textile machines, control panels



Type 86.00



Type 86.30



SEE THE 86 SERIES  
TECHNICAL  
DATA SHEET

# 88 SERIES

## PLUG-IN OR PANEL MOUNT TIMERS

### FEATURES

- Multi-function or Mono-function
- 8 or 11 pins for use with 90 series sockets
- Time scales from 0.05s to 100h
- Wide supply voltage range
- Versions available: 2 timed contacts or 1 timed contact + 1 instantaneous contact

### APPLICATIONS

- Medical and dentistry, drying kilns, industrial furnaces and ovens, ultrasonic cleaning machines, industrial washing machines, confectionery machines, wood-processing machines, galvanic treatment plants



Type 88.02



Type 88.92



SEE THE 88 SERIES  
TECHNICAL  
DATA SHEET

# TIMER - SOCKET COMPATIBILITY



## 85 SERIES TIMERS

- Compatible with 94 series sockets



## 88 SERIES TIMERS

- Compatible with all 90 series sockets



## 86 SERIES TIMERS

Type 86.00

compatible with the following type of sockets:

- 90.02 - 90.03
- 92.03
- 96.04

Type 86.30

compatible with the following types of sockets:

- 90.02 - 90.03
- 92.03
- 96.02 - 96.04
- 94.02, 94.03, 94.04, 94.54, 94.P3, 94.P4
- 97.01, 97.02, 97.51, 97.52, 97.P1, 97.P2
- 95.03, 95.05, 95.55, 95.P3, 95.P5



## 93 SERIES TIMED SOCKETS

93.21 Timed socket - with output relay makes interface module:

- 38.21 (SSR/EMR) with screw terminals

93.68 Timed socket - with output relay makes interface modules:

- 39.81 (EMR) with screw terminals
- 39.80 (SSR) with screw terminals

93.69 Timed socket - with output relay makes interface modules:

- 39.91 (EMR) with push-in terminals
- 39.90 (SSR) with push-in terminals

# 7E SERIES

## ENERGY METERS

FOR MONITORING, MEASURING, AND TRANSMITTING VIA SO PULSE OUTPUT, COMMUNICATION INTERFACE, MBUS, MODBUS OR ETHERNET

### FEATURES

- Bi-directional energy meters for measuring kWh, kvarh, kVAh, phase-sequence and current levels, reactive power, frequency, and costs. Equipped with dual tariff, partial resettable energy
- Current measurement by direct connection up to 80 A and via CTs up to 50,000 A
- All types are MID-certified and are equipped with a programmable SO interface
- Integrated RS485, M-bus or Ethernet Modbus communications port
- Module width 18 or 72 mm
- 35 mm rail mount (EN 60715)

### APPLICATIONS

- Energy meters ideal for remote monitoring and measurement of energy consumed in apartments, communal areas in apartment blocks, boilers, photovoltaic systems, machine tools, production lines and presses



Type 7E.64



Type 7E.78



SEE THE 7E SERIES  
TECHNICAL  
DATA SHEET

# 7P SERIES

## SURGE PROTECTION DEVICES (SPD)

SPD, FOR SINGLE/THREE PHASE APPLICATIONS, FOR PROTECTION OF PHOTOVOLTAIC SYSTEMS AND DATA LINES

### FEATURES

- Class I SPD with varistor and GDT guarantee high isolation resistance and zero leakage current
- Class I SPD with low residual voltage (Up) ensure effective protection from the point of delivery of energy
- Class I and Class II SPDs with replaceable module Class III SPDs for a wide range of applications such as LED lamps, sensitive electronics, data lines
- For panel or 35 mm rail mounting (EN 60715)
- Equipped with replaceable modules with or without remote contact
- Module width from 18 to 144 mm

### APPLICATIONS

- The ideal overvoltage protection system consists of the cascade connection of Class I, II and III SPDs. To protect residential and service installations such as (apartments, saunas, TVs, dishwashers, computers and modems, etc.), industrial installations (elevators, motors, sensitive measurement and data transmission electronics) and photovoltaic systems (inverters, panels and control and measurement devices) from atmospheric, induced and switching overvoltage



Type 7P.05



SEE THE 7P SERIES  
TECHNICAL  
DATA SHEET

Approvals (according to type)



# 7P SERIES

## SURGE PROTECTION DEVICES (SPD)



Type 7P.12



Type 7P.24



Type 7P.68



Type 7P.36



# 30 SERIES

## SUBMINIATURE DIL RELAYS

# 32 SERIES

## SUBMINIATURE PCB RELAYS 6 A

### FEATURES

- Very Small
- 1 or 2 contacts
- Rating: 2 or 6 A
- Very low coil consumption 200 mW
- For managing low loads

### APPLICATIONS

- Used mainly for electronic circuit boards in signal transmission devices, telecoms, and small household appliances



Type 30.22



Type 32.21



SEE THE 30 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 32 SERIES  
TECHNICAL  
DATA SHEET

# 34 SERIES

## MINIATURE PCB RELAYS (EMR OR SSR)

# 36 SERIES

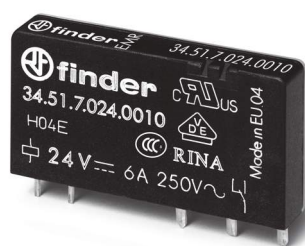
## MINIATURE PCB RELAYS 10 A

### FEATURES

- "Ultra slim" 34 Series
- "Sugar Cube" 36 Series
- 1 contact
- Rating: 6 or 10 A
- Low coil consumption

### APPLICATIONS

- Used mainly for circuit boards within equipment such as vending machines, programmable controllers (34 Series), widely used in household appliances (36 Series)



Type 34.51



Type 36.11



SEE THE 34 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 36 SERIES  
TECHNICAL  
DATA SHEET

# 40 SERIES

## MINIATURE PCB AND PLUG-IN RELAYS 8 - 10 - 12 - 16 A

# 41 SERIES

## MINIATURE PCB RELAYS 3 - 5 - 8 - 12 - 16A

### FEATURES

- Versatile
- 1 or 2 contacts
- Rating: 8 - 10 - 12 - 16 A
- AC or DC Coil
- Bistable versions available
- Low coil consumption
- Low profile (41 Series)

### APPLICATIONS

- Multi-function, suitable for a wide range of applications.  
Due to their versatility they are widely used in electronic circuit boards for household appliances (refrigerators, washing machines), electric gates, boiler control boards and similar



Type 40.52



Type 41.61



SEE THE 40 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 41 SERIES  
TECHNICAL  
DATA SHEET

# 43 SERIES

## LOW PROFILE PCB RELAYS 10 - 16 A

# 45 SERIES

## MINIATURE PCB RELAYS + FASTON 250 16 A

### FEATURES

- 1 contact
- Rating: 10 or 16 A
- DC coil
- Low coil consumption
- For applications where the size/ratio is an issue (43 Series)
- For special applications and ambient temperatures above 100°C (45 Series)

### APPLICATIONS

- Household appliances, food industry, drying kilns



Type 43.61



Type 45.71



SEE THE 43 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 45 SERIES  
TECHNICAL  
DATA SHEET

# 46 SERIES

## MINIATURE INDUSTRIAL RELAYS 8 - 16 A

# 55 SERIES

## GENERAL PURPOSE RELAYS 7 - 10 A

### FEATURES

- 1, 2, 3 or 4 contacts
- Rating: 8 - 16 (46 Series), 7 - 10 A (55 Series)
- AC or DC coil
- Special railway versions
- Mounting on dedicated sockets (screw terminals or push-in)

### APPLICATIONS

- General switchboard installations, industrial automation panels, auxiliary relays, interfacing



Type 46.52



Type 55.33



SEE THE 46 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 55 SERIES  
TECHNICAL  
DATA SHEET

# 56 SERIES

## MINIATURE POWER RELAYS 12 A

# 60 SERIES

## GENERAL PURPOSE RELAYS 6 - 10 A

### FEATURES

- 2, 3 or 4 contacts
- Rating: 6 - 10 - 12 A
- AC or DC coils
- 8 or 11 pins (60 Series)
- Mounting via dedicated sockets, direct PCB (56 Series), or by Flange and direct Faston connections

### APPLICATIONS

- General switchboard installations, industrial automation panels, auxiliary relays, interfacing



Type 56.34



Type 60.13



SEE THE 56 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 60 SERIES  
TECHNICAL  
DATA SHEET

# 62 SERIES

## POWER RELAYS 16 A

# 65 SERIES

## POWER RELAYS 20 - 30 A

### FEATURES

- 1, 2 or 3 contacts
- Rating: 16 A (Series 62), 20 or 30 A (Series 65)
- AC or DC coil
- Special versions with magnetic arc blow out (Series 62)
- Mounting via PCB, dedicated sockets or direct Faston connections (Series 62)
- Mounting via PCB or direct Faston connections (Series 65)

### APPLICATIONS

- General switchboard installations, industrial automation panels, auxiliary relays, interfacing, versions for applications with special loads (e.g. magnetic blow out for control of power distribution switches and circuit breakers)



Type 62.33



Type 65.31



SEE THE 62 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 65 SERIES  
TECHNICAL  
DATA SHEET

# 66 SERIES

## POWER RELAYS 30 A

# 67 SERIES

## RELAYS FOR PV APPLICATIONS 50 A

### FEATURES

- 2 or 3 contacts
- Rating: 30 A (Series 66), 50 A (Series 67)
- AC or DC coil
- Special versions for environments at risk of explosion (ATEX) (Series 66)
- Mounting via PCB or by Flange and direct Faston connections (Series 66)
- Mounting via PCB (Series 67)

### APPLICATIONS

- Installations where the disconnection of electrical power is critically important (electronic power boards, inverters, photovoltaic (PV) systems) or ATEX applications, where the environment is at risk of explosion (LPG storage, underground garage, fuel stations)



Type 66.82



Type 67.23



SEE THE 66 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 67 SERIES  
TECHNICAL  
DATA SHEET

# RB SERIES

## BISTABLE RELAYS 8 A

# RR SERIES

## FAST ACTING RELAYS 8 A

### FEATURES

- 2 or 4 contacts
- Rating: 8 A
- DC coils
- Separate SET and RESET signal (RB Series)
- Tripping time <3 ms (RR series)
- Mounting on 35 mm rail or on 90 Series 11 pin sockets

### APPLICATIONS

- Used within safety circuits and protection systems in areas such as energy distribution, or in applications where the intervention time is crucially important



Type RB.14



Type RR.24



SEE THE RB SERIES  
TECHNICAL  
DATA SHEET



SEE THE RR SERIES  
TECHNICAL  
DATA SHEET

# 38 SERIES

## RELAY INTERFACE MODULES (EMR OR SSR) 0.1 - 6 - 8 A

# 39 SERIES

## MasterINTERFACE RELAY INTERFACE MODULE (EMR OR SSR) 0.1 - 2 - 6 A

### FEATURES

- 1 or 2 changeover contacts
- Rating: 0.1 to 8 A (depending on type)
- Relay used 34 Series or 41 Series (depending on types)
- AC or DC
- Special versions for hazardous locations (ATEX)
- Only 6.2 mm wide
- Sockets with screw or push-in terminals

### APPLICATIONS

- Interfacing in general, widely used in automation with PLC and in applications where space saving is important, ATEX applications: LPG deposits, underground garages, gas stations



Type 38.51



Type 39.60



SEE THE 38 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 39 SERIES  
TECHNICAL  
DATA SHEET

# 48 SERIES

# 4C SERIES

## RELAY INTERFACE MODULES

### FEATURES

- 1 or 2 changeover contacts
- Rating: 8 - 10 - 16 A
- Relay used: 40 Series (for 48 Series)
- Relay used: 46 Series (for 4C Series)
- AC or DC coils
- Sockets with screw terminals or push-in terminals

### APPLICATIONS

- Interfacing in general, widely used in panel building in general applications where 1 or 2 high rated contacts are required  
Industrial automation control panels, power plants, home automation



Type 48.P8



Type 4C.P1



SEE THE 48 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 4C SERIES  
TECHNICAL  
DATA SHEET

# 58 SERIES

## RELAY INTERFACE MODULE

### FEATURES

- 2, 3 or 4 changeover contacts
- Rating: 7 or 10 A
- Relay used: 55 Series
- AC or DC coils
- Special versions for hazardous locations (ATEX)
- Sockets with screw terminals or push-in terminals

### APPLICATIONS

- Interfacing in general, widely used in panel building, and in applications where 3 or 4 contacts are required Industrial automation control panels, power plants, home automation, ATEX applications: LPG deposits, underground garages, gas stations



Type 58.P4



Type 58.34



SEE THE 58 SERIES  
TECHNICAL  
DATA SHEET

# SOCKET-RELAY COMPATIBILITY

For all these sockets there are a number of accessories available, such as jumper links for faster termination, retain and release clips and marker tag holders.



93 Series



SCREW TERMINAL



PUSH-IN



34 Series



95 Series



SCREW TERMINAL



PUSH-IN



40 Series



97 Series



SCREW TERMINAL



PUSH-IN



46 Series

# SOCKET-RELAY COMPATIBILITY

For all these sockets there are a number of accessories available, such as pole jumper links for faster termination, retain and release clips and marker tag holders.



94 Series



SCREW TERMINAL



PUSH-IN



55 Series



96 Series



SCREW TERMINAL



56 Series



90 Series



SCREW TERMINAL



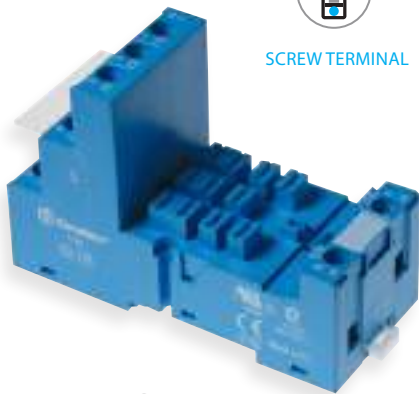
60 Series

# SOCKET-RELAY COMPATIBILITY AND MODULES

For all these sockets there are a number of accessories available, such as jumper links for faster termination, retain and release clips and marker tag holders.



SCREW TERMINAL



92 Series



62 Series

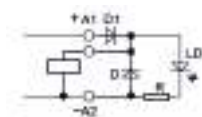
## 99 SERIES

### COIL INDICATION AND EMC SUPPRESSION MODULES FOR FINDER SOCKETS

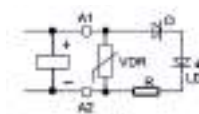
These modules can be plugged into the appropriate socket.



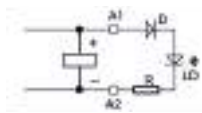
99 Series



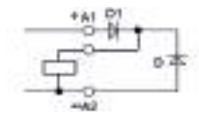
Green LED indicator + diode  
(standard polarity)



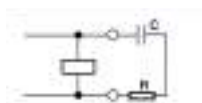
Green LED indicator + Varistor



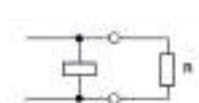
Green LED indicator



Diode (standard polarity)



RC Circuit



Residual current by pass

# 50 SERIES

## FORCIBLY GUIDED CONTACTS RELAYS

PCB RELAYS WITH FORCIBLY GUIDED CONTACTS ACCORDING TO EN 61810-3 (PREVIOUSLY EN 50205)

### FEATURES

- Electromechanical relays with 2, 4 or 6 forcibly guided contacts
- Rating: 8 A
- DC coil power supply
- PCB Mounting

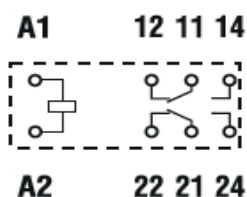
### APPLICATIONS

- For safety applications with forcibly guided contacts according to EN 61810-3. Machine tools, elevators, safety barriers



Type 50.12

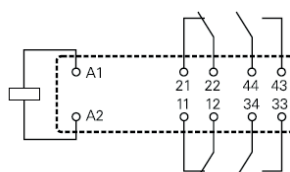
#### 2 CONTACTS



Type 50.14

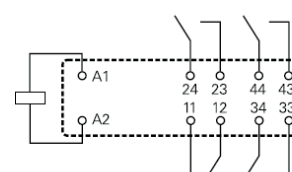
#### 4 CONTACTS

VERSION 2 NO + 2 NC



#### 4 CONTACTS

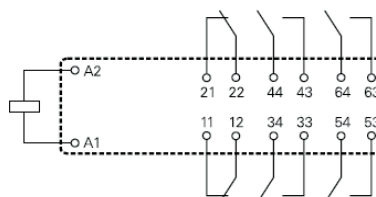
VERSION 3 NO + 1 NC



Type 50.16

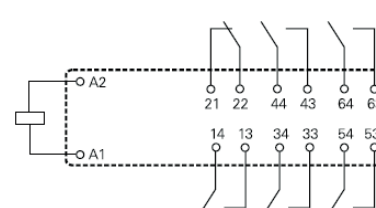
#### 6 CONTACTS

VERSION 4 NO + 2 NC



#### 6 CONTACTS

VERSION 5 NO + 1 NC



# 7S SERIES

## RELAY MODULES WITH FORCIBLY GUIDED CONTACTS

### FEATURES

- Modular relays with 2, 3, 4 or 6 guided contacts
- Rating: 6 - 10 A
- AC or DC coils
- Screw or screwless terminals
- 35 mm rail mounting

### APPLICATIONS

- For safety applications with Class A guided contacts according to EN 61810-3
- For safety applications up to SIL 2 according to IEC 61508 (depending on type)
- Machine tools, elevators, safety barriers and expansion modules



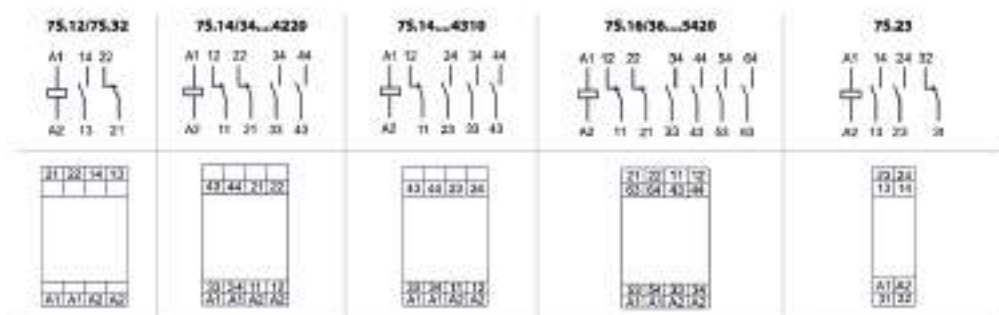
Type 7S.14  
**2-4-6 CONTACTS**



Type 7S.34  
**2-4-6 CONTACTS**



Type 7S.23  
**3 CONTACTS**



SEE THE 7S SERIES  
TECHNICAL  
DATA SHEET

# 34 SERIES

# 41 SERIES

## SOLID STATE PCB RELAYS

### FEATURES

- 1 NO output (contact)
- Output rated current: 0.1 to 6 A (depending on type)
- Output rated voltage: 24 V DC, 48 V DC or 230 V AC, according to type
- Input (coil) specification:  
DC when mounted on printed circuit board  
AC or DC when mounted on socket
- When mounted on a socket - the relay/socket combination become the 38 Series and 39 Series relay interface modules

### APPLICATIONS

- Mainly used for fast signal acquisition and in applications with high operating speed (>1 cycle/sec). Example: Signal acquisition circuit boards or panels, traffic signals, industrial automation (packaging)



Type 34.81



Type 41.81



SEE THE 34 SERIES  
TECHNICAL  
DATA SHEET



SEE THE 41 SERIES  
TECHNICAL  
DATA SHEET

# 7T SERIES

## PANEL THERMOSTATS AND THERMO-HYGROSTATS

### FEATURES

#### THERMOSTATS

- 1 NO contact (10 A) version for ventilation control
- 1 NC contact (10 A) version for heating control
- Temperature setting +10...+60 °C or -20...+40 °C

#### THERMO-HYGROSTAT

- 1 NO contact, rating: 10 A
- Multi-function
- Electronic temperature control +10...+60°C and humidity control 50 ...90%

### APPLICATIONS

- Turning On or Off ventilation fans or anti-condensation heaters according to the temperature being above or below the set temperature.  
In the case of the thermo-hygrostat, switching is also dependent on the humidity within the panel



Type 7T.81



Type 7T.81



Type 7T.51



SEE THE 7T SERIES  
TECHNICAL  
DATA SHEET



# 7H SERIES

## PANEL HEATERS

PANEL HEATERS  
TO PREVENT THE FORMATION OF CONDENSATION  
AND ENSURE THE OPTIMUM TEMPERATURE  
WITHIN ELECTRICAL ENCLOSURES

### FEATURES

- Heater power 25 - 50 - 100 and 150 W
- Power supply 110...230 V AC/DC
- SAFE TOUCH plastic protection against accidental contact
- Fan assisted heaters
- Heater power 250 and 400 W
- Power supply 230 V AC
- SAFE TOUCH plastic protection against accidental contact

### APPLICATIONS

- Used in control panels and enclosures to prevent the formation of condensation by keeping the interior temperature of the control panel above the dew point



Type 7H.51.0.230.0025



Type 7H.51.0.230.0100



Type 7H.51.8.230.0250



SEE THE 7H SERIES  
TECHNICAL  
DATA SHEET

# 7F SERIES

## FILTER FANS

FILTER FANS WITH EXHAUST FILTERS TO MAINTAIN CONSTANT TEMPERATURE IN CONTROL PANELS AND ENCLOSURES AND ENSURE PERFORMANCE OF COMPONENTS

### FEATURES

- Fans with exhaust filter
- Air flow from 14 to 75 m<sup>3</sup>/h
- Power supply DC 24 V, 120 V or 230 V AC
- Level of protection IP54

### APPLICATIONS

- Used in control panels and enclosures to ventilate, and remove humidity that may be present

EXHAUST FILTERS



Type 7F.20

FILTER FANS



Type 7F.02



SEE THE 7F SERIES  
TECHNICAL  
DATA SHEET

# 7L SERIES

## PANEL LIGHT

**NEW**

FINDER'S NEW LED LIGHT  
FOR ELECTRICAL PANELS -  
WITH MAGNETIC MOUNTING.

### FEATURES

- Versions for switching via an ON/OFF switch or via integral movement detector
- Direct magnetic mounting or through a screw-fixed metallic support
- Power supply: 12...48 V AC/DC and 110...240 V AC/DC
- Nominal power consumption: 9 W (600 lm), 13 W (1200 lm)
- Radiation angle: 120°
- Light colour: 5,000 K
- Protection category: IP20
- Connector included

### APPLICATIONS

- Used in electrical cabinets or technical compartments for powerful and versatile lighting.



Versions for switching via  
an ON/OFF



Versions integral for  
movement detector

 **FINDER SpA**  
Via Drubiaglio 14  
I-10040 ALMESE (TO)  
Tel. +39 011 9346 211  
Fax +39 011 9359 079  
[export@findernet.com](mailto:export@findernet.com)

 **FINDER FRANCE Sarl**  
Avenue d'Italie  
ZI du Pré de la Garde  
F - 73300 ST. JEAN DE MAURIENNE  
Tel.+33/479/83 27 27  
Fax +33/479/59 80 04  
[finder.fr@finder.fr](mailto:finder.fr@finder.fr)

 **FINDER GmbH**  
Hans-Böckler-Straße 44  
D - 65468 Trebur-Astheim  
Tel. +49 6147 2033-0  
Fax +49 6147 2033-377  
[info@finder.de](mailto:info@finder.de)

 **S.P.R.L. FINDER BELGIUM B.V.B.A.**  
Bloemendaal, 5  
B - 1547 BEVER  
Tel. +32/54/30 08 68  
Fax +32/54/ 30 08 67  
[finder.be@findernet.com](mailto:finder.be@findernet.com)

 **FINDER P.L.C.**  
Opal Way - Stone Business Park  
STONE, STAFFORDSHIRE  
ST15 0SS - UK  
Tel: +44 (0)1785 818100  
Fax: +44 (0)1785 815500  
[finder.uk@findernet.com](mailto:finder.uk@findernet.com)

 **FINDER RELAIS NEDERLAND B.V.**  
Dukdalfweg 51  
1041 BC AMSTERDAM - NEDERLAND  
Tel. +31/20/615 65 57  
Fax +31/20/617 89 92  
[finder.nl@findernet.com](mailto:finder.nl@findernet.com)

 **FINDER AB**  
Sångleksgatan 6c  
SE - 215 79 Malmö  
Tel: +46 (0) 40 93 77 77  
Fax: +46 (0) 40 93 78 78  
[finder.se@findernet.com](mailto:finder.se@findernet.com)

 **FINDER RELAIS VERTRIEBS GmbH**  
IZ NÖ-Süd, Str. 2a, Obj. M 40  
A - 2351 Wiener Neudorf  
Tel. +43/2236/86 41 36 - 0  
Fax +43/2236/86 41 36 - 36  
[finder.at@findernet.com](mailto:finder.at@findernet.com)

 **FINDER CZ, s.r.o.**  
Radiová 1567/2b  
CZ - 102 00 PRAHA 10  
Tel. +420 286 889 504  
Fax +420 286 889 505  
[finder.cz@findernet.com](mailto:finder.cz@findernet.com)

 **FINDER ApS**  
Bøstrupvej 11  
DK-8870 Langå  
Tel. +45 69 15 02 10  
Fax +45 69 15 02 11  
[finder.dk@findernet.com](mailto:finder.dk@findernet.com)

 **FINDER ELECTRICA S.L.U.**  
C/ Severo Ochoa, 6  
Pol. Ind. Cap de L'Horta  
E - 46185 La Pobla de Vallbona (VALENCIA)  
Apdo Postal 234  
Telf. Oficina Comercial 93 836 51 30  
[finder.es@findernet.com](mailto:finder.es@findernet.com)

 **FINDER - Hungary Kereskedelmi Kft.**  
Kiss Ernő u. 3/A.  
HU - 1046 BUDAPEST  
Tel. +36/1-369-30-54  
Fax +36/1-369-34-54  
[finder.hu@findernet.com](mailto:finder.hu@findernet.com)

 **FINDER PORTUGAL LDA**  
Travessa Campo da Telheira, n. 56  
Vila Nova da Telha,  
P - 4470-828 - MAIA  
Tel. +351 22 99 42 900 -1-6-7-8  
Fax +351 22 99 42 902  
[finder.pt@findernet.com](mailto:finder.pt@findernet.com)

 **FINDER (Schweiz) AG**  
Industriestrasse 1a Postfach 23  
CH - 8157 DIELSDORF (ZH)  
Tel. +41 44 885 30 10  
Fax +41 44 885 30 20  
[finder.ch@finder-relais.ch](mailto:finder.ch@finder-relais.ch)

 **FINDER RELAYS, INC.**  
4191 Capital View Drive  
Suwanee, GA 30024 - U.S.A.  
Tel. +1/770/271-4431  
[finder.us@findernet.com](mailto:finder.us@findernet.com)

 **FINDER ECHIPAMENTE srl**  
Str. Clujului nr. 75 F,  
401180 Turda  
Jud. CLUJ - ROMANIA  
Tel. +40 264 403 888  
Fax +40 264 403 889  
[finder.ro@finder.ro](mailto:finder.ro@finder.ro)

 **RELEVADORES FINDER, S.A. de C.V**  
Carretera a San Bernardino Chalchihuapan #43  
San Pablo Ahuatempan, Santa Isabel Cholula, Puebla.  
C.P. 74350 - MÉXICO.  
Tel. +52/222/2832392, 2832393, 2832394  
Fax. +52/222/7628471  
[finder.mx@findernet.com](mailto:finder.mx@findernet.com)

 **FINDER OOO**  
Bakuninskaya street, 78/1  
105082 MOSCOW  
RUSSIAN FEDERATION  
Tel. +7/495/229-49-29  
Fax +7/495/229-49-42  
[finder.ru@findernet.com](mailto:finder.ru@findernet.com)

 **FINDER COMPONENTES LTDA.**  
Rua Olavo Bilac, 326  
Bairro Santo Antônio  
São Caetano Do Sul - São Paulo  
CEP 09530 - 260 - BRASIL  
Tel. +55 11 4223 1550  
Tel. +55 11 2147 1550  
Fax +55 11 4223 1590  
[finder.br@findernet.com](mailto:finder.br@findernet.com)

 **FINDER ARGENTINA**  
Calle Martín Lezica 3079  
San Isidro - Buenos Aires  
CP B1642GJA - ARGENTINA  
Tel +54/11/5648.6576  
Fax +54/11/5648.6577  
[finder.ar@findernet.com](mailto:finder.ar@findernet.com)

 **FINDER ASIA Ltd.**  
Room 901 - 903, 9F, Premier  
Center20 Cheung Shun Street  
Cheung Sha Wan, Kowloon  
Hong Kong  
Tel. +852 3188 0212  
Fax +852 3188 0263  
[finder.hk@findernet.com](mailto:finder.hk@findernet.com)

 **FINDER Polska Sp. z o.o.**  
ul. Malwowa 126  
PL - 60-175 Poznań  
Tel. +48 61 865 94 07  
Fax +48 61 865 94 26  
[finder.pl@findernet.com](mailto:finder.pl@findernet.com)

 **FINDER INDIA PVT. LTD.**  
Unit No.912 - R.G. Trade Tower,  
Netaji Subhash Place,  
Wazirpur District Centre,  
Pitampura - Delhi - 110034 - INDIA  
Tel. +91-11-47564343  
Fax +91-11-47564344  
[finder.in@findernet.com](mailto:finder.in@findernet.com)

 **FINDER BALTIC, UAB**  
Eiguliu str. 9-1  
Vilnius, LT-03150  
Lithuania  
Tel. +370 526 53 027  
[finder.lt@findernet.com](mailto:finder.lt@findernet.com)

 **FINDER LATAM S.A.**  
Logistic Center for South America  
Ruta 8 km 17.500 - Edificio Quantum - O  
CP: 91600 - Zonamerica - Montevideo -  
[finder.latam@findernet.com](mailto:finder.latam@findernet.com)

 **FINDER COMPONENTS INC.**  
5028 South Service Road  
Burlington, ONTARIO L7L 5Y7  
Toll Free 1 800 265 6263  
Local 905 681 7767  
[finder.ca@findernet.com](mailto:finder.ca@findernet.com)

 **FINDER d.o.o.**  
Skapinova ulica 2a  
1000 Ljubljana, Slovenija  
Tel. +386 820 09931

