

# 19 SERIES



NEW

## Override & Status indicating modules 1-5-16 A

**FINDER 19 SERIES** has been extended with new modules ideally suited for use in conjunction with Building Management Systems (BMS), Direct Digital Controllers (DDC), or in combination with PLC's.

These modules are used as an interface between the BMS, DDC, PLC and the connected equipment.

**Override control modules** can override the BMS, DDC or PLC controller and permit the equipment to be forced into the desired operational status. In the "Automatic" position, signals from the BMS, DDC or PLC-system will be transferred, unchanged, to the equipment. But, in the "Hand" position it is possible to force the equipment to the desired status, which is indicated by an LED (or LEDs for type 19.50) on the module's fascia.

**Status Indicating modules** are LED indicating modules which can show the status of a BMS/DDC/PLC input or output, but where the colour of the LED has been pre-set to match the importance or urgency of the signal. Presetting the colour to Red, Green or Blue is by a dip-switch on the rear face of the module, before mounting. An output CO or NC contact, following the input to the module, is provided for further control or status feedback.

There are 7 different types of module available:

**Status indicating modules**

- Type 19.31, 1-channel status indicating module
- Type 19.32, 2-channel status indicating module

**Override control modules**

- Type 19.21, Auto/Off/On output module
- Type 19.41, Override module - Auto/Off/Hand
- Type 19.42, Override module - Auto/Off/Low/High

**Analogue Override control module**

- Type 19.50, Analogue output module (0...10) V

**Power relay module**

- Type 19.91, Power module for high current inrush loads

**Benefits of the Override & Status indicating modules product line:**

- Very flexible due to the various possibilities of combination
- Clear indication of the signal or equipment status
- Easy to operate selection switches and potentiometers
- Feedback contact; signals when switch is not in "Auto" position.
- Compact housing: 11.2 mm, 17.5 or 35 mm
- Uniform unit depth
- Space saving, compact design
- 35 mm rail mounting
- Full width marker tags available for easy text labeling

## Features

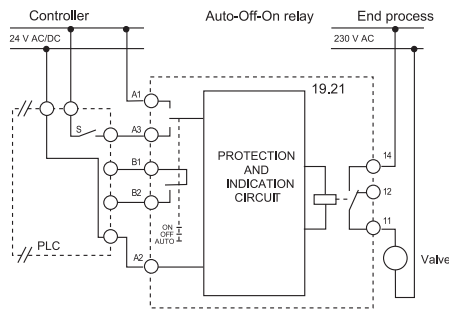
### Auto/Off/On output module 10 A

- Auto/Off/On output module intended to permit the automatic control of pumps, blowers or motor groups. Or, in the case of installation, maintenance or failure, to permit the load equipment to be turned "Off" or controlled under "On" control
- Ideal interface for PLC and electronic systems
- Only 11.2 mm wide
- 3 function selector switch:
  - Auto: works as a monostable relay (following A3 input)
  - Off: relay permanently OFF
  - On: relay permanently ON
- 24V AC/DC supply and module input
- 35 mm rail (EN 60715) mounting

### Application examples:

- control of pumps, blowers or motor groups
- primarily suited to Industrial control systems

## Wiring diagram

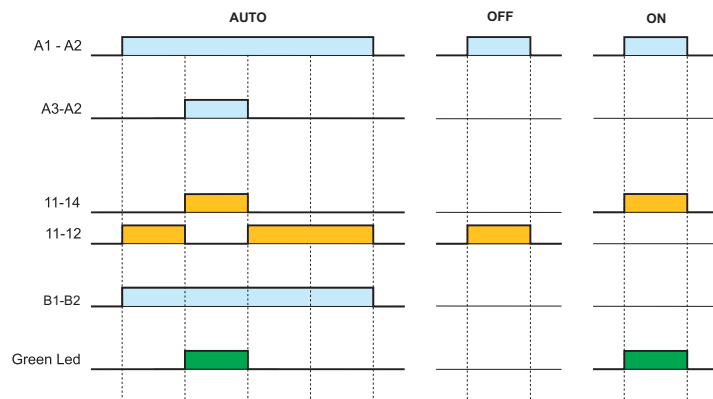


For outline drawing see page 11

## 19.21.0.024.0000



- 1 CO output contact
- 11.2 mm wide
- Feedback contact



| Contact specification                                 |                     |                      |
|---|---------------------|----------------------|
| Contact configuration                                 |                     | 1 CO (SPDT)          |
| Rated current/Maximum peak current $I_N/I_{max}$      |                     | 10/15 A              |
| Rated voltage/Maximum switching voltage $U_N/U_{max}$ |                     | 250/400 V            |
| Rated load AC1  |                     | 2,500 VA             |
| Rated load AC15                                       |                     | 500 VA               |
| Single phase motor rating (230 V AC)                  |                     | 0.44 kW              |
| Breaking capacity DC1 (24/110/220 V)                  |                     | 10/0.3/0.12 A        |
| Minimum switching load                                |                     | 300 mW (5 V/5 mA)    |
| Standard contact material                             |                     | AgSnO <sub>2</sub>   |
| Feedback contact specification (terminals B1-B2)      |                     |                      |
| Contact configuration                                 |                     | 1 NO (SPST-NO)       |
| Maximum current                                       |                     | 0.3 A                |
| Rated voltage   | AC/DC               | 24 V                 |
| Supply & Input specification                          |                     |                      |
| Nominal voltage                                       | $U_N$ AC (50/60 Hz) | 24 V                 |
|   | $U_N$ DC            | 24 V                 |
| Rated power   | $P_N$               | 0.6 VA [50 Hz]/0.4 W |
| Operating range                                       | V AC                | (0.8...1.1) $U_N$    |
|   | V DC                | (0.8...1.1) $U_N$    |
| Ambient temperature range                             |                     | -20...+50 °C         |
| Protection category                                   |                     | IP 20                |

## Features

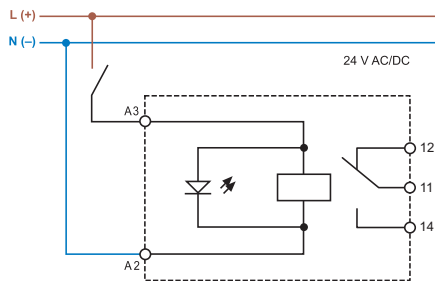
### 1-channel status indicating module

- 1-channel indicating module to provide visual indication of BMS/DDC/PLC input or output status with immediate indication of its importance or urgency according to the colour of the LED. A change-over output contact, following the input to the module, provides for further control or status feedback. Commonly used in building management systems
- 24V AC/DC input
- 35 mm rail (EN 60715) mounting

#### Application examples:

- status reports of heating installations, pumps, blowers or motor groups
- error reports such as danger of frost or blocked filter
- fire alarm

### Wiring diagram



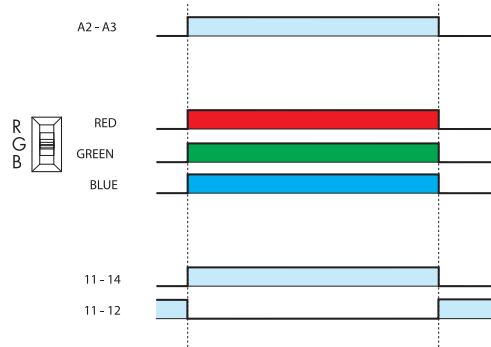
For outline drawing see page 11

| Output specification                                  |                     |                       |
|---|---------------------|-----------------------|
| Contact configuration                                 |                     | 1 CO (SPDT)           |
| Rated current/Maximum peak current $I_N/I_{max}$      |                     | 1/3 A                 |
| Rated voltage/Maximum switching voltage $U_N/U_{max}$ |                     | 250/250 V AC          |
| Rated load AC1  |                     | 125 VA                |
| Rated load AC15                                       |                     | 25 VA                 |
| Single phase motor rating (230 V AC)                  |                     | —                     |
| Breaking capacity DC1 (24/110/220 V)                  |                     | 1/0.3/— A             |
| Minimum switching load                                |                     | 10 mW (0.1 V/1 mA)    |
| Standard contact material                             |                     | AgNi + Au             |
| Input specification                                   |                     |                       |
| Nominal voltage                                       | $U_N$ AC (50/60 Hz) | 24 V                  |
|   | $U_N$ DC            | 24 V                  |
| Rated power   | $P_N$               | 0.4 VA (50 Hz)/0.25 W |
| Operating range                                       | V AC                | (0.8...1.1) $U_N$     |
|   | V DC                | (0.8...1.1) $U_N$     |
| Ambient temperature range                             |                     | -20...+50 °C          |
| Protection category                                   |                     | IP 20                 |

**NEW** 19.31.0.024.0000



- LED indicator, 3 colours: Red, Green, Blue
- 1 CO control
- 17.5 mm wide



The LED colour is selected by the dip-switch on the rear face of the module, prior to mounting on the 35 mm rail.

The colour is determined by the system designer according to the urgency or importance of the signal.

Commonly, the following levels of importance or urgency are assigned to the Red, Green and Blue colours according to EN 60073:

- Red LED: Error
- Green LED: In operation
- Blue LED: Alarm (fire or similar)

## Features

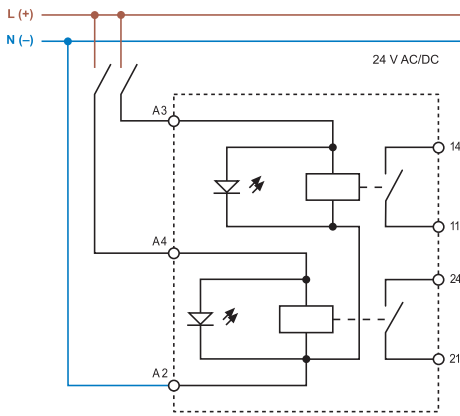
### 2-channel status indicating module

- 2-channel indicating module to provide visual indication of BMS/DDC/PLC input or output status with immediate indication of its importance or urgency according to the colour of the LED. Two NO output contacts, following the inputs to the module, provide for further control or status feedback. Commonly used in building management systems
- 24V AC/DC inputs
- 35 mm rail (EN 60715) mounting

### Application examples:

- status reports of heating installations, pumps, blowers or motor groups
- error reports such as danger of frost or blocked filter
- fire alarm

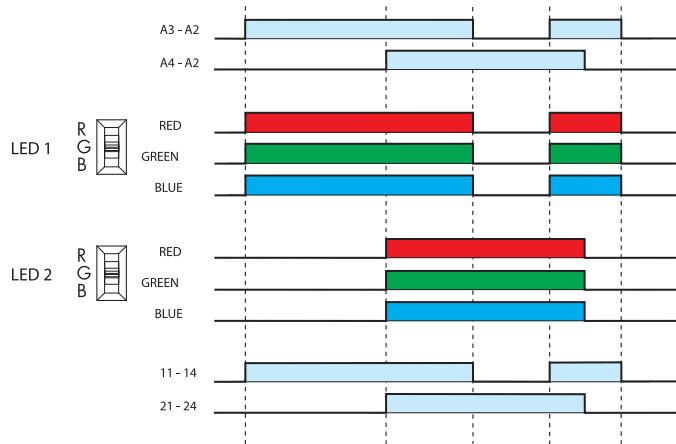
### Wiring diagram



**NEW** 19.32.0.024.0000



- LED indicator, 3 colours: Red, Green, Blue
- 2 NO control
- 17.5 mm wide



The LED colour is selected by the dip-switch on the rear face of the module, prior to mounting on the 35 mm rail.

The colour is determined by the system designer according to the urgency or importance of the signal.

Commonly, the following levels of importance or urgency are assigned to the Red, Green and Blue colours according to EN 60073:

- Red LED: Error
- Green LED: In operation
- Blue LED: Alarm (fire or similar)

For outline drawing see page 11

| Output specification                                  |                     |                                |
|---|---------------------|--------------------------------|
| Contact configuration                                 |                     | 2 NO (SPST-NO) separate output |
| Rated current/Maximum peak current $I_N/I_{max}$      |                     | 1/3 A                          |
| Rated voltage/Maximum switching voltage $U_N/U_{max}$ |                     | 125/250 V AC                   |
| Rated load AC1  |                     | 125 VA                         |
| Rated load AC15                                       |                     | 25 VA                          |
| Single phase motor rating (230 V AC)                  |                     | —                              |
| Breaking capacity DC1 (24/110/220 V)                  |                     | 1/0.3/— A                      |
| Minimum switching load                                |                     | 10 mW (0.1 V/1 mA)             |
| Standard contact material                             |                     | AgNi + Au                      |
| Input specification                                   |                     |                                |
| Nominal voltage                                       | $U_N$ AC (50/60 Hz) | 24 V                           |
|   | $U_N$ DC            | 24 V                           |
| Rated power   | $P_N$               | 0.8 VA (50 Hz)/0.5 W           |
| Operating range                                       | V AC                | (0.8...1.1) $U_N$              |
|   | V DC                | (0.8...1.1) $U_N$              |
| Ambient temperature range                             |                     | -20...+50 °C                   |
| Protection category                                   |                     | IP 20                          |

## Features

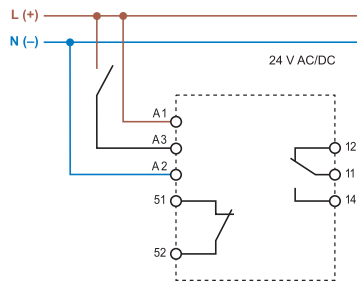
### Override module - Auto/Off/Hand

- Auto/Off/Hand override module intended to permit the automatic control of pumps, blowers or motor groups. Or, in the case of installation, maintenance or failure, to permit the load equipment to be turned "Off" or controlled under "Hand" control
- 3 function selector switch:
  - Auto: work as a monostable relay relay (following A3 input)
  - Off: relay output permanently Off
  - Hand: relay output permanently On
- 24V AC/DC supply & input
- 35 mm rail (EN 60715) mounting

### Application examples:

- control of pumps, blowers or motor groups commonly associated with building management systems

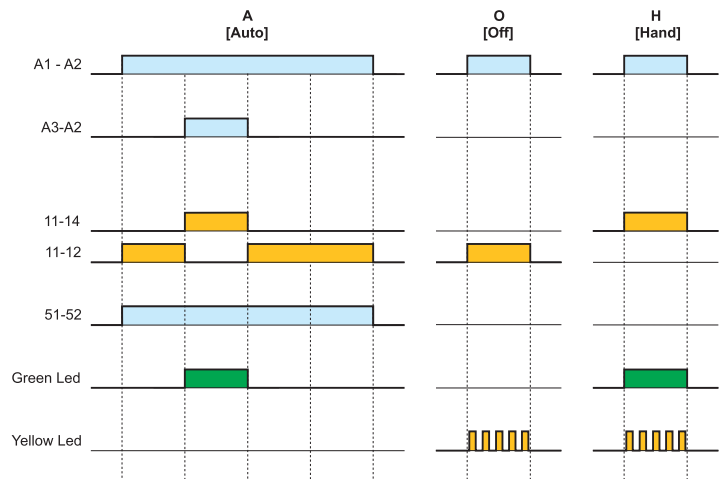
### Wiring diagram



**NEW** 19.41.0.024.0000



- 1 CO output contact
- 1 feedback output contact
- 17.5 mm wide
- LED indicator



In position "H" (Hand) or "O" (Off), a yellow LED will flash and the feedback output (51-52) will open, to indicate that the module is not in "A" (Automatic) position.

For outline drawing see page 11

### Output specification (terminals 12-11-14)

|   |                    |
|---|--------------------|
| Contact configuration                                 | 1 CO (SPDT)        |
| Rated current/Maximum peak current $I_N/I_{max}$      | 5/15 A             |
| Rated voltage/Maximum switching voltage $U_N/U_{max}$ | 250/400 V AC       |
| Rated load AC1  | 1,250 VA           |
| Rated load AC15                                       | 250 VA             |
| Single phase motor rating (230 V AC)                  | 0.185 kW           |
| Breaking capacity DC1 (24/110/220 V)                  | 3/0.35/0.2 A       |
| Minimum switching load                                | 500 mW (10 V/5 mA) |
| Standard contact material                             | AgCdO              |

### Feedback output specification (terminals 51-52)

|                           |                |
|---------------------------|----------------|
| Contact configuration     | 1 NO (SPST-NO) |
| Maximum / Minimum current | 100 mA/10 mA   |
| Rated voltage             | AC/DC 24 V     |

### Supply & Input specification

|                 |                     |                    |
|-----------------|---------------------|--------------------|
| Nominal voltage | $U_N$ AC (50/60 Hz) | 24 V               |
|                 | $U_N$ DC            | 24 V               |
| Rated power     | $P_N$               | 1 VA (50 Hz)/0.6 W |
| Operating range | V AC                | (0.8...1.1) $U_N$  |
|                 | V DC                | (0.8...1.1) $U_N$  |

|                           |              |
|---------------------------|--------------|
| Ambient temperature range | -20...+50 °C |
| Protection category       | IP20         |

## Features

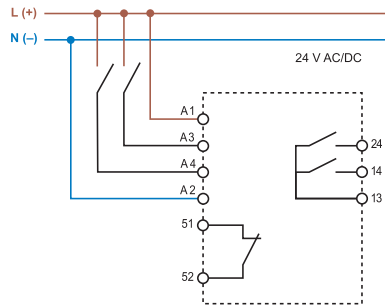
### Override module - Auto/Off/Low/High

- Override output module intended to permit the automatic control of two-speed pumps, blowers or motor groups. Or, in the case of installation, maintenance or failure, to permit the load equipment to be turned "Off" or to run in "Low speed" or "High speed" under "Hand" control
- 4 function selector switch:
  - Auto: directly controlled by the BMS or PLC
  - Off: relays permanently Off
  - Hand Low: Low speed relay output permanently On
  - Hand High: High speed relay output permanently On
- 24V AC/DC supply and module inputs
- 35 mm rail (EN 60715) mounting

### Application examples:

- control of two-speed pumps, blowers or motor groups commonly associated with building management systems

### Wiring diagram

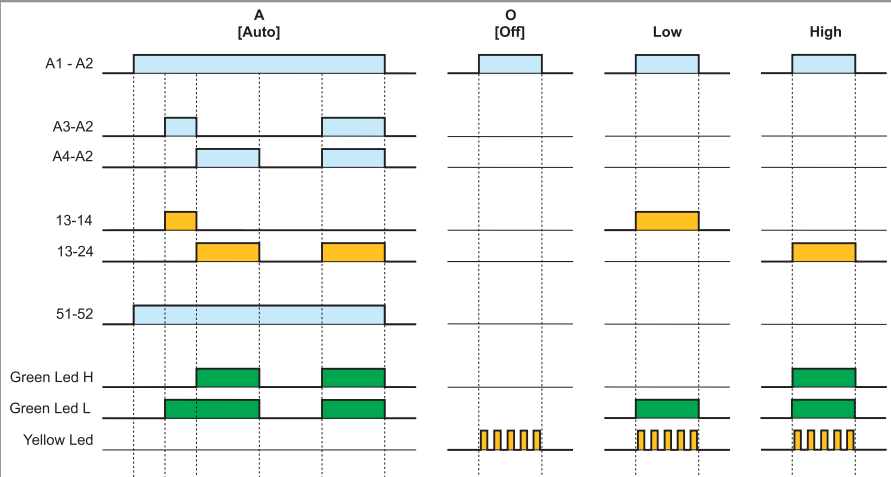


For outline drawing see page 11

**NEW** 19.42.0.024.0000



- Low and High output contacts
- 1 feedback output contact
- 35 mm wide
- LED indicator



In position "Low", "High" or "O" (Off) a Yellow LED will flash and the feedback output (51-52) will open to indicate that the module is not in the "A" (Automatic) position.

Note: If inputs A3 and A4 are on together, A4 takes precedence, and only High output (13-24) is closed.

### Output specification (terminals 13-14-24)

|   |                    |
|---|--------------------|
| Contact configuration                                 | 2 NO (DPST-NO)     |
| Rated current/Maximum peak current $I_N/I_{max}$      | 5/15 A             |
| Rated voltage/Maximum switching voltage $U_N/U_{max}$ | 250/400 V AC       |
| Rated load AC1  | 1,250 VA           |
| Rated load AC15                                       | 250 VA             |
| Single phase motor rating (230 V AC)                  | 0.185 kW           |
| Breaking capacity DC1 (24/110/220 V)                  | 3/0.35/0.2 A       |
| Minimum switching load                                | 500 mW (10 V/5 mA) |
| Standard contact material                             | AgCdO              |

### Feedback output specification (terminals 51-52)

|                           |                |
|---------------------------|----------------|
| Contact configuration     | 1 NO (SPST-NO) |
| Maximum / Minimum current | 100 mA/10 mA   |
| Rated voltage             | AC/DC 24 V     |

### Supply & Input specification

|                 |                     |                      |
|-----------------|---------------------|----------------------|
| Nominal voltage | $U_N$ AC (50/60 Hz) | 24 V                 |
|                 | $U_N$ DC            | 24 V                 |
| Rated power     | $P_N$               | 1.6 VA (50 Hz)/0.8 W |
| Operating range | V AC                | (0.8...1.1) $U_N$    |
|                 | V DC                | (0.8...1.1) $U_N$    |

|                           |              |
|---------------------------|--------------|
| Ambient temperature range | -20...+50 °C |
| Protection category       | IP20         |

Note 1: the operating delay time from opening of contact 13-14 and closing of contact 13-24 is about 80 ms, both in Auto position (when the in-pu is switched from A3 to A4) and when the selector is switched from Low to High position.

Note 2: as a consequence, the maximum switching frequency of the output is 3 Hz.

Note 3: In the case of high inertia loads it may be necessary to add a Timer relay to delay the energisation of the Low speed motor contactor (following High speed running), to allow the motor time to decelerate.

## Features

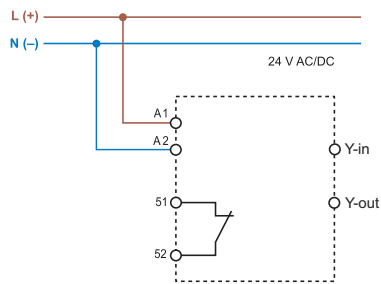
### Analogue override module - Auto/Hand (0...10)V

- Analogue output module intended to provide, by the selection switch on the front panel, a (0...10) V output, automatically or by hand. With the selector switch in position "A" (Automatic) the (0...10) V signal is derived from the controller.
- In position "H" (Hand) the controller signal is ignored and the (0...10) V signal is derived directly from the potentiometer setting on the fascia of the module
- The level of the (0...10) V output signal is displayed by 3 green LEDs, set at >25%, >50% and >75%.
- 24V AC/DC supply
- 35 mm rail (EN 60715) mounting

### Application examples:

- permits the direct control of proportional valves under exceptional circumstances or where the automatic controller has failed

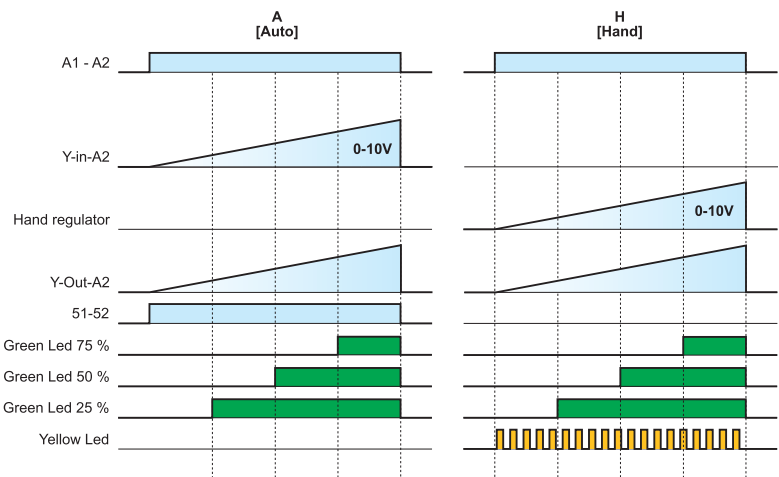
### Wiring diagram



**NEW** 19.50.0.024.0000



- Analogue output (0...10)V, plus 1 feedback output contact
- 17.5 mm wide
- LED indicator



In position "H" (Hand) a Yellow LED will flash and the feedback contact will open to indicate that the module is not in the "A" (Automatic) position.

For outline drawing see page 11

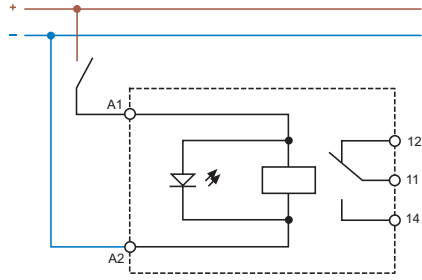
| <b>(0...10)V Signal specification</b> (terminal Y-in)  |                              |  |
|--|------------------------------|--|
| Input control signal                                   |                              | 0...10 V (I <sub>max</sub> 20mA - short-circuit protected) |
| Green LED 25%  |                              | >2.5 V   |
| Green LED 50%  |                              | > 5 V  |
| Green LED 75%  |                              | >7.5 V   |
| <b>Feedback output specification</b> (terminals 51-52) |                              |  |
| Output configuration                                   |                              | 1 NO (SPST-NO)   |
| Maximum / Minimum current                              |                              | 100 mA/10 mA   |
| Rated voltage  | AC/DC                        | 24 V   |
| <b>Supply &amp; Input specification</b>                |                              |  |
| Nominal voltage  | U <sub>N</sub> AC (50/60 Hz) | 24 V   |
|  | U <sub>N</sub> DC            | 24 V   |
| Rated power  | P <sub>N</sub>               | 0.9 VA (50 Hz)/0.7 W                                       |
| Operating range  | V AC                         | (0.8...1.1) U <sub>N</sub>                                 |
|  | V DC                         | (0.8...1.1) U <sub>N</sub>                                 |
| Ambient temperature range                              |                              | -20...+50 °C   |
| Protection category                                    |                              | IP20   |

## Features

### Power relay module 16 A

- Suitable for Lamps load
- AgSnO<sub>2</sub> contacts for heavy duty, high inrush current loads
- DC supply (12 or 24 V)
- LED indicator
- Reinforced insulation between supply and contacts
- Cadmium Free contacts
- 35 mm rail (EN 60715) mounting

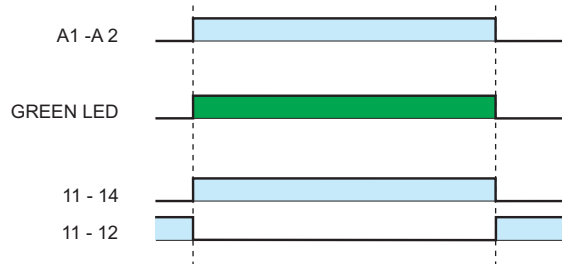
### Wiring diagram



**NEW** 19.91.9.0xx.4000



- 1 Pole changeover contact
- 17.5 mm



For outline drawing see page 11

### Contact specification

|   |                        |
|---|------------------------|
| Contact configuration                                 | 1 CO (SPDT)            |
| Rated current/Maximum peak current $I_N/I_{max}$      | 16/30 A (120 A – 5 ms) |
| Rated voltage/Maximum switching voltage $U_N/U_{max}$ | 250/440 V AC           |
| Rated load AC1  | 4,000 VA               |
| Rated load AC15 (230 V AC)                            | 750 VA                 |
| Nominal lamp rating (230 V):                          | 2,000 W                |
| incandescent  | 750 W                  |
| compensated fluorescent                               | 300 mW (5 V/ 5 mA)     |
| Minimum switching load                                | AgSnO <sub>2</sub>     |
| Standard contact material                             |                        |

### Coil specification

|                          |                       |
|--------------------------|-----------------------|
| Nominal voltage $U_N$ DC | 12 - 24 V             |
| Rated power $P_N$        | 1.2 VA (50 Hz) /0.5 W |
| Operating range          | (0.8 ... 1.1) $U_N$   |

### Technical data

|                                   |                             |
|-----------------------------------|-----------------------------|
| Mechanical life AC /DC            | 10 · 10 <sup>6</sup> cycles |
| Electrical life at rated load AC1 | 80 · 10 <sup>3</sup> cycles |
| Operate/release time              | 12/8 ms                     |
| Ambient temperature range         | -20...+50 °C                |
| Protection category               | IP 20                       |



## Ordering information

Example: 19 series Auto/Off/Hand override module, 1 CO (SPDT) 5 A contact, 24 V AC/DC supply.

**1 9 . 4 1 . 0 . 0 2 4 . 0 0 0 0**

**Series**

**Type**

- 21= Auto/Off/On output module, 11.2mm
- 31= 1-channel status indicating module
- 32= 2-channel status indicating module
- 41= Override module - Auto/Off/Hand
- 42= Override module - Auto/Off/Low/High
- 50= Analogue override module (0...10) V
- 91= Power relay module

**Supply version**

- 0 = AC (50/60 Hz) / DC
- 9 = DC

**Supply voltage**

- 012 = 12 V
- 024 = 24 V

**Contact material**

- 0= Standard for 19.21/31/32/41/42/50
- 4= Standard for 19.91

**Codes / Module width**

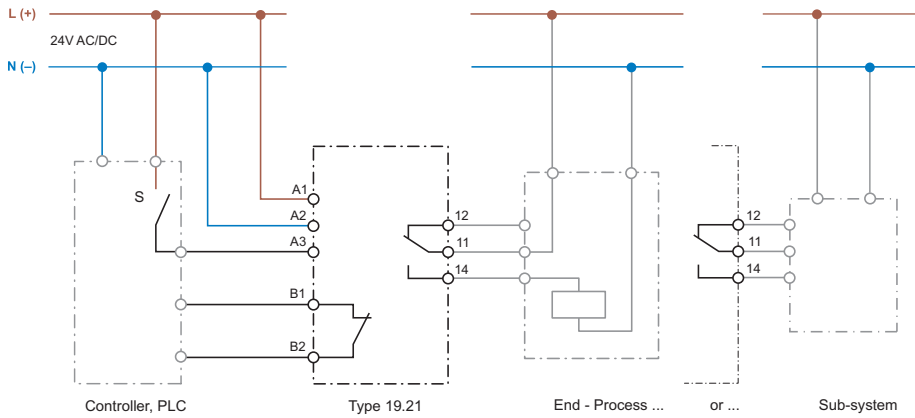
- 19.21.0.024.0000 / 11.2 mm
- 19.31.0.024.0000 / 17.5 mm
- 19.32.0.024.0000 / 17.5 mm
- 19.41.0.024.0000 / 17.5 mm
- 19.42.0.024.0000 / 35.0 mm
- 19.50.0.024.0000 / 17.5 mm
- 19.91.9.012.4000 / 17.5 mm
- 19.91.9.024.4000 / 17.5 mm

## Technical data

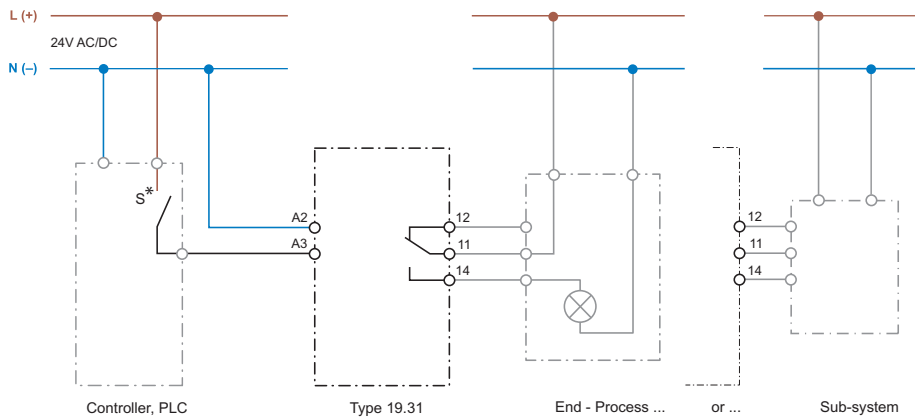
| <b>Insulation</b>                                 |                                    | <b>19.21</b>              | <b>19.31/32</b>          | <b>19.41/42</b>           | <b>19.50</b>    | <b>19.91</b> |
|---|------------------------------------|---------------------------|--------------------------|---------------------------|-----------------|--------------|
| Dielectric strength (V AC)                        | between supply and contacts        | 3,000                     | 1,000                    | 2,000                     | —               | 4,000        |
|   | between open contacts              | 1,000                     | 750                      | 1,000                     | —               | 1,000        |
|   | between supply and feedback output | 2,000                     | —                        | 1,500                     | 1,500           | —            |
| <b>EMC specifications</b>                         |                                    |                           |                          |                           |                 |              |
| <b>Type of test</b>                               |                                    | <b>Reference standard</b> | <b>19.21/31/32/42/91</b> |                           | <b>19.41/50</b> |              |
| Electrostatic discharge                           | contact discharge                  | EN 61000-4-2              | 4 kV                     |                           |                 |              |
|   | air discharge                      | EN 61000-4-2              | 8 kV                     |                           |                 |              |
| Radiated electromagnetic field (80 ... 1,000 MHz) |                                    | EN 61000-4-3              | 30 V/m                   |                           |                 |              |
| Fast transients (burst) (5-50 ns, 5 kHz)          |                                    | EN 61000-4-4              | 4 kV                     |                           |                 |              |
| Voltage pulses (1.2/50 µs)                        | common mode                        | EN 61000-4-5              | 2 kV                     | 1 kV                      |                 |              |
|   | on supply terminals                | EN 61000-4-5              | 1 kV                     | 0.5 kV                    |                 |              |
| <b>Terminals</b>                                  |                                    | <b>19.21</b>              | <b>19.31/32/41/42/91</b> |                           |                 |              |
| Screw torque                                      |                                    | 0.5 Nm                    | 0.8 Nm                   |                           |                 |              |
| Max. wire size                                    | solid cable                        | 1x6/2x2.5 mm <sup>2</sup> | 1x10/2x14 AWG            | 1x6/2 x 4 mm <sup>2</sup> | 1x10/2x12 AWG   |              |
|   | stranded cable                     | 1x4/2x1.5 mm <sup>2</sup> | 1x12/2x16 AWG            | 1x4/2x2.5 mm <sup>2</sup> | 1x12/2x14 AWG   |              |
| Wire strip length                                 |                                    | 7 mm                      | 9 mm                     |                           |                 |              |

## Wiring diagrams - Application examples

### Type 19.21

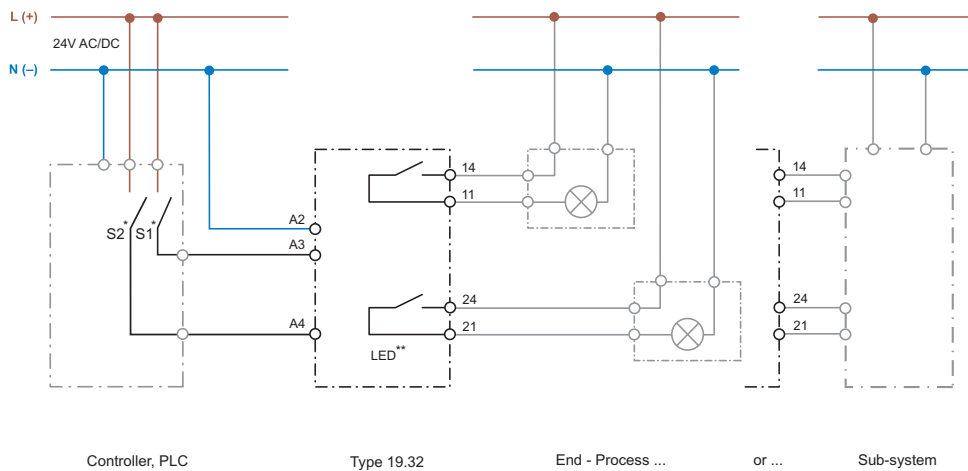


### Type 19.31



\* S can be, for example, a NO-contact with the purpose of indicating "in operation" (selecting green as LED color) or a NC-contact with the purpose of indicating "error" or "alarm" (selecting red or blue as LED color). The LED color has to be chosen through the back side selector.

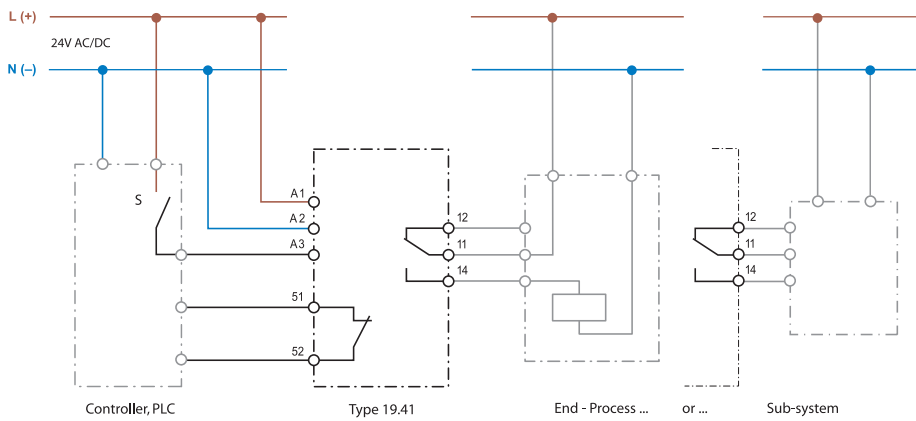
### Type 19.32



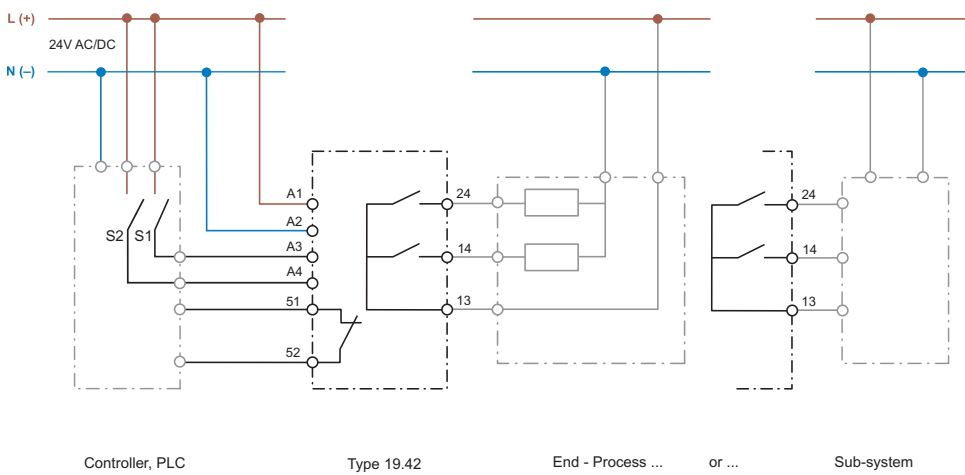
\* S1 (related to LED 1 and NO 11-14) and S2 (related to LED 2 and NO 21-24) can be, for example, NO-contacts with the purpose of indicating "in operation" (selecting green as LED color) or NC-contacts with the purpose of indicating "error" or "alarm" (selecting red or blue as LED color). The LED colors have to be chosen, independently, through the back side selectors.

## Wiring diagrams - Application examples

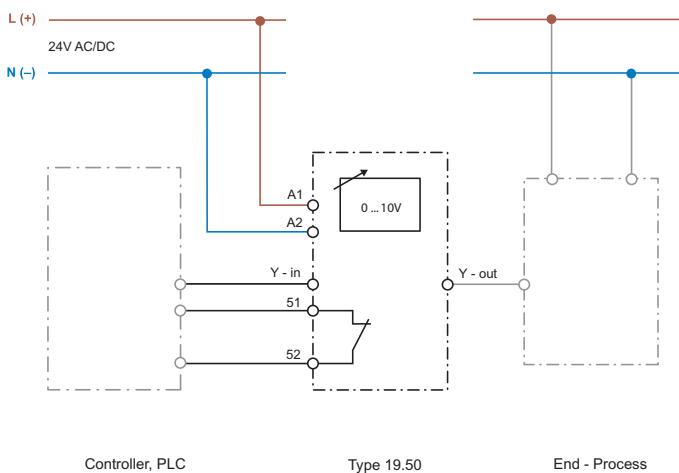
### Type 19.41



### Type 19.42



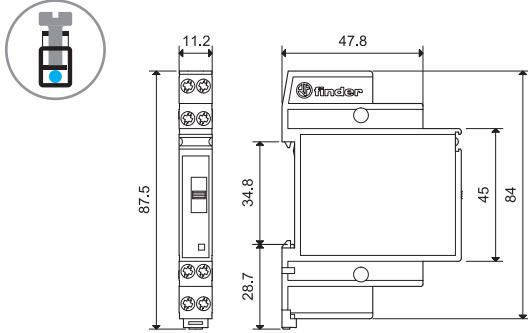
### Type 19.50



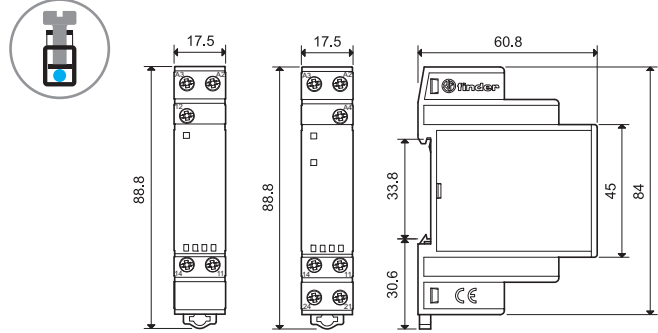
In the selector position A (Automatic) the 0...10 V set point of Yin – A2 is led, through Yout, to the end process; in the selector position H (Hand) the 0...10 V value set with the regulator is led, through Yout, to the end process.

## Outline drawings

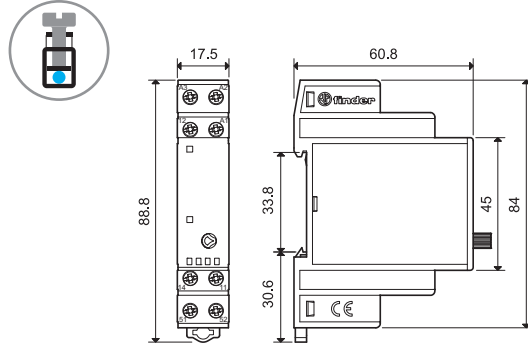
Type 19.21  
Screw terminal



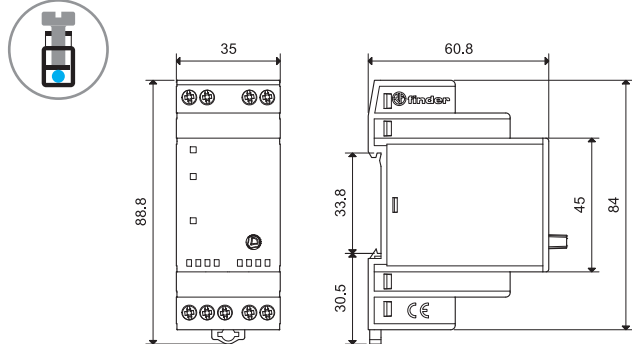
Type 19.31-19.32  
Screw terminal



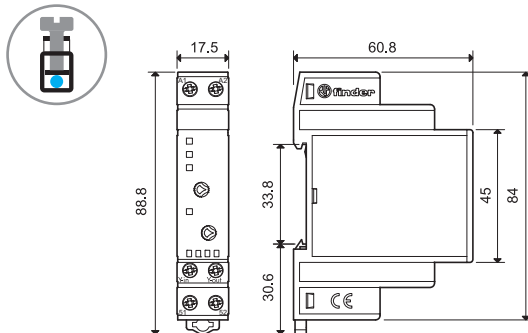
Type 19.41  
Screw terminal



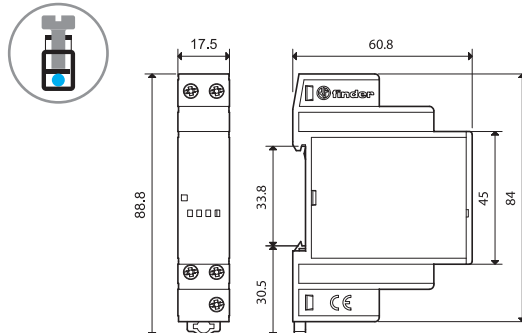
Type 19.42  
Screw terminal



Type 19.50  
Screw terminal



Type 19.91  
Screw terminal



## Accessories



019.40

**Sheet of marker tags**, for 19.21 type, plastic, 40 tags, 8x10 mm

019.40



060.72

**Sheet of marker tags**, for 19.31/32/41/42/50/91 types, plastic, 72 tags, 6x12 mm

060.72



019.01

**Identification tag**, for 19.31/32/41/42/50 types, plastic, 1 tag, 17x25.5 mm

019.01



020.01

**Adaptor for panel mounting**, for 19.31/32/41/50/91 types, plastic, 17.5 mm wide

020.01



011.01

**Adaptor for panel mounting**, for 19.42 type, plastic, 35 mm wide

011.01

