

Terminal Protection to IP20



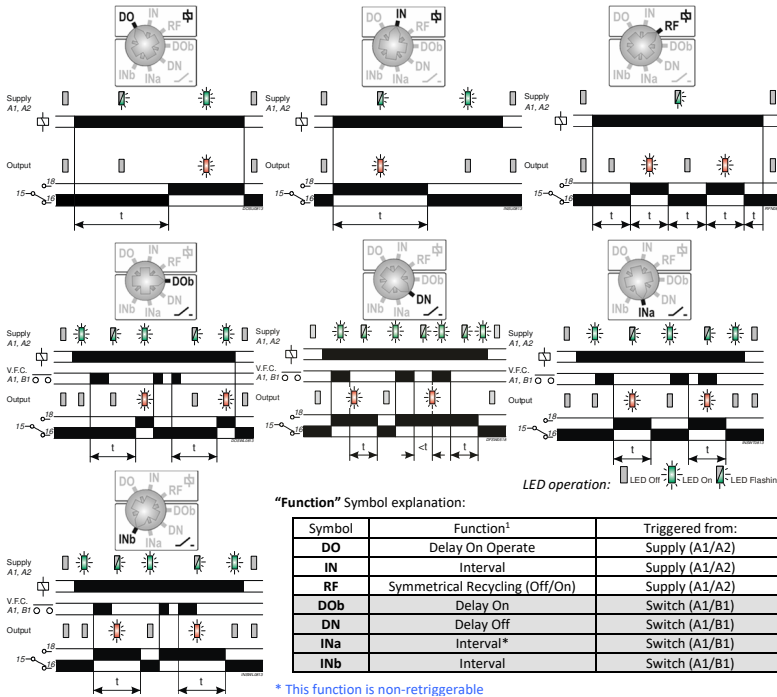
Dims: to DIN 43880
W. 17.5mm

- ***NEW* 17.5mm DIN rail housing**
- **7 Selectable functions (3 Supply Initiated, 4 Switch Initiated)**
- **3 Switch initiated functions are re-triggerable (DOb, DN and INb)**
- **7 Selectable time ranges (0.1 seconds – 100 hours)**
- **Fine adjustment of selected time range**
- **LED warning indication if function is changed whilst powered**
- **Switch initiated functions ideal for use in Watchdog circuits**
- **Multi-voltage input (24 – 230V AC/12 – 230V DC)**
- **1 x SPDT relay output 8A**
- **Green LED indication for supply / timing status**
- **Red LED indication for relay status**
- **Conforms to IEC 61812**

Wiring Information and Product Demonstration Videos can also be found on our YouTube channel
<https://www.youtube.com/user/BroyceControlLtd>



FUNCTION DIAGRAMS



TECHNICAL SPECIFICATION

Supply voltage U (A1, A2):	24 – 230V AC/12 – 230V DC												
Frequency range:	48 - 63Hz (AC supplies)												
Supply variation:	AC: +15/-20%, DC: +/-15%												
Overvoltage category:	III (IEC 60664)												
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664												
Power consumption (max.):	<table border="1"> <tr> <td>12V</td> <td>24V</td> <td>110V</td> <td>230V</td> </tr> <tr> <td>AC: 0.3VA</td> <td>0.4VA</td> <td>1.3VA</td> <td>3.4VA</td> </tr> <tr> <td>DC: 0.26W</td> <td>0.24W</td> <td>0.47W</td> <td>0.95W</td> </tr> </table>	12V	24V	110V	230V	AC: 0.3VA	0.4VA	1.3VA	3.4VA	DC: 0.26W	0.24W	0.47W	0.95W
12V	24V	110V	230V										
AC: 0.3VA	0.4VA	1.3VA	3.4VA										
DC: 0.26W	0.24W	0.47W	0.95W										
Timing functions (7):	<ul style="list-style-type: none"> Supply initiated: Delay On (DO), Interval (IN), Symmetrical Recycling Off/On (RF) Switch initiated: Delay On (DOb), Delay Off (DN), Interval (Trailing) (INa), Interval (Leading) (INb) 												
Timing ranges (7):	<table border="1"> <thead> <tr> <th>Seconds:</th> <th>Minutes:</th> <th>Hours:</th> </tr> </thead> <tbody> <tr> <td>0.1 – 1</td> <td>0.1 – 1</td> <td>0.1 – 1</td> </tr> <tr> <td>1 – 10</td> <td>1 – 10</td> <td>1 – 10</td> </tr> <tr> <td></td> <td></td> <td>10 – 100</td> </tr> </tbody> </table>	Seconds:	Minutes:	Hours:	0.1 – 1	0.1 – 1	0.1 – 1	1 – 10	1 – 10	1 – 10			10 – 100
Seconds:	Minutes:	Hours:											
0.1 – 1	0.1 – 1	0.1 – 1											
1 – 10	1 – 10	1 – 10											
		10 – 100											
Reset time:	100ms												
Accuracy:	± 1% of maximum full scale												
Adjustment accuracy:	< 5% of maximum full scale												
Repeat accuracy:	± 0.5% at constant conditions (IEC 61812)												
Drift with temperature:	± 0.05% / °C												
Drift with voltage:	± 0.2% / V												
External trigger input (A1 > B1):	Volt Free Contact, Open Collector												
External loading:	Yes, between B1 and A2 (i.e. LED, Relay, Lamp)												
Trigger threshold:	>75% of voltage present between A1 and A2 (auto-set)												
Minimum trigger time:	AC: 60ms DC: 40ms (B1 terminal unloaded)												
Maximum input frequency:	10 Hz (with 50:50 duty cycle)												
Maximum cable length:	10m (between Timer and external switching device)												
Power on indication / Timing ² :	Green LED												
Relay status:	Red LED												
Ambient temp:	-20 to +60°C												
Relative humidity:	+95%												
Output (15, 16, 18):	SPDT relay												
Output rating:	<table border="1"> <tr> <td>AC1</td> <td>250V 8A (2000VA)</td> </tr> <tr> <td>AC15</td> <td>250V 5A (no), 3A (nc)</td> </tr> <tr> <td>DC1</td> <td>25V 8A (200W)</td> </tr> </table>	AC1	250V 8A (2000VA)	AC15	250V 5A (no), 3A (nc)	DC1	25V 8A (200W)						
AC1	250V 8A (2000VA)												
AC15	250V 5A (no), 3A (nc)												
DC1	25V 8A (200W)												
Electrical life:	≥ 150,000 ops at rated load												
Dielectric voltage:	2kV AC (rms) IEC 60947-1												
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664												
Housing:	Grey flame retardant UL94												
Weight:	≈ 60g												
Mounting option:	On to 35mm symmetric DIN rail to BS EN 60715 or direct surface mounting via 2 x M3.5 or 4BA screws using the black clips provided on the rear of the unit.												
Terminal conductor size	≤ 2 x 2.5mm ² solid or stranded												
Approvals:	Conforms to IEC 61812.												

INSTALLATION AND SETTING

- BEFORE INSTALLATION, ISOLATE THE SUPPLY.
- Connect the unit as required.



Installation work must be carried out by qualified personnel.

Setting the unit.

- Set the "Function" selector ⑤ to the required position¹.
- Set the "Range" ④ to the required position (depending on whether seconds, minutes or hours are required), then set the "Set %" adjustment ③ as required. The "Set %" is a % of the selected range, so 60% of the 1 – 10 hour range will give 6 hours.

Applying power.

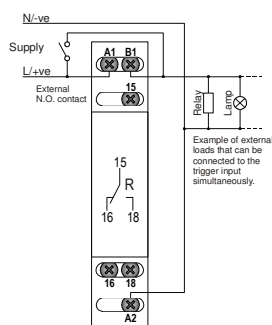
- Apply power and the green LED ① will illuminate or start flashing depending on Function selected. If a Switch initiated function is selected, the LED will begin flashing upon closing of the external input.
- The red relay LED ② will illuminate to indicate the relay is in the energised state.

Note:

¹ If the "Function" selector is changed whilst the power is applied, the relay will remain in its current state and the green LED will flash at a faster rate. Power must be removed and re-applied for the new Function to operate.

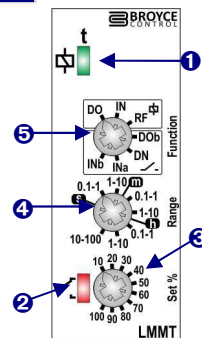
² In accordance with IEC 61812, the green LED is permitted to extinguish during a voltage dip or momentary interruption of the power supply providing the state of the output relay does not change. The dip / interruption duration and levels are defined in the product standard.

CONNECTION DIAGRAM



SETTING DETAILS

1. Power supply status / Timing (Green) LED
2. Relay output status (Red) LED
3. "Set %" adjustment
4. Time delay "Range" selector
5. Timing "Function" selector



DIMENSIONS

