

Terminal Protection to IP20



Dims: to DIN 43880  
W. 17.5mm

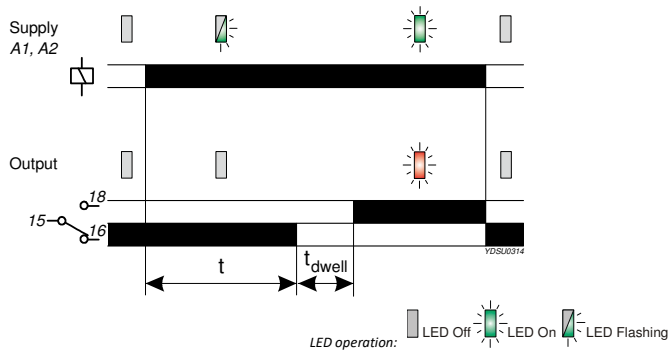
- **\*NEW\* 17.5mm DIN rail housing**
- **Star/Delta timing function**
- **7 Selectable Dwell time settings (40 – 160ms)**
- **7 Selectable time ranges (0.1 seconds – 100 hours)**
- **Fine adjustment of selected time range**
- **Multi-voltage input (12 – 230V AC/DC)**
- **1 x SPDT relay output 8A**
- **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 DIAGRAM



### TECHNICAL SPECIFICATION

Supply voltage U (A1, A2):	12 – 230V AC/DC			
Frequency range:	48 - 63Hz (AC supplies)			
Supply variation:	AC: +15/-10% DC: +/-15%			
Overvoltage category:	III (IEC 60664)			
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664			
Power consumption (max.):	12V	24V	110V	230V
	AC: 0.6VA	0.8VA	2.6VA	6.8VA
	DC: 0.52W	0.48W	0.94W	1.9W

Timing function:	Star/Delta Start		
Selectable Dwell (t <sub>dwell</sub> ) time settings (7):	40, 60, 80, 100, 120, 140, 160ms		
Timing ranges (7):	Seconds:	Minutes:	Hours:
	0.1 – 1	0.1 – 1	0.1 – 1
	1 – 10	1 – 10	1 – 10
			10 - 100

Reset time <sup>2</sup> :	< 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
Power on indication / Timing <sup>1</sup> :	Green LED
Relay status:	Red LED
Ambient temp:	-20 to +60°C
Relative humidity:	+95%
Output (15, 16, 18):	SPDT relay
Output rating:	AC1 250V 6A (1500VA) DC1 30V 6A (180W)

Electrical life:	≥ 150,000 ops at rated load
Dielectric voltage:	2kV (rms) IEC 60947-1
Rated impulse withstand voltage:	4kV (1.2/50µs) IEC 60664
Housing:	Grey flame retardant UL94
Weight:	≈ 70g
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 <sup>2</sup> solid or stranded

Approvals: Conforms to IEC 61812.



CE, UKCA, C-tick and RoHS Compliant.  
EMC: Immunity: EN 61000-6-2 (EN 61000-4-3 10V/m 80MHz - 2.7GHz)  
Emissions: EN 61000-6-4

### 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 "Dwell (ms)" selector ⑤ to the required position.
- 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.

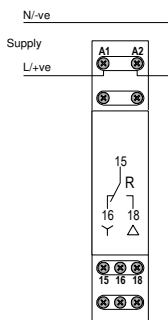
- Apply power and the green LED ① will start flashing to indicate timing is in progress. Contacts 15 and 16 will remain closed during this period.
- At the end of the delay period "t", contacts 15 and 16 will open for the period set by the Dwell time.
- After the Dwell time, contacts 15 and 18 will close and the red relay LED ② will illuminate to indicate the relay is in the energised state.
- The relay will remain in the energised state until power is removed. Re-applying power will repeat the whole process again.

#### Note:

<sup>1</sup> 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.

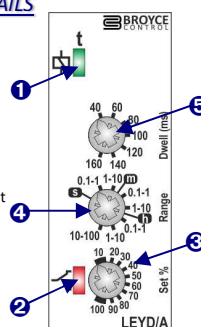
<sup>2</sup> The dip / interruption (reset) duration and levels are defined in the product standard however, the standard allows for these to be different from the levels actually specified.

### CONNECTION DIAGRAM



### SETTING DETAILS

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



### DIMENSIONS

