

## /// BR930 Series - Electromechanical Signalling Relay

### TY150/GRP01

#### QT2 2F 500mV

DC Neutral Track Relay to BR938A.



#### Features

The TY150/GRP01 is a 2F DC neutral track relay for use on railways signalling track circuits not electrified on the 50 Hz AC system. It is intended for use with Aster type 'U' jointless track circuit equipment.

Of compact modular plug-in design it has non-weld contacts and is equipped with a safety interlocking system (pin code) for insertion into mating plugboards.

#### Contact arrangement

REAR VIEW OF RELAY

|    | A | B | C | D |    |
|----|---|---|---|---|----|
| 1  | F |   |   | F | 1  |
| 2  |   |   |   |   | 2  |
| 3  |   |   |   |   | 3  |
| 4  |   |   |   |   | 4  |
| 5  |   |   |   |   | 5  |
| 6  |   |   |   |   | 6  |
| 7  |   |   |   |   | 7  |
| 8  |   |   |   |   | 8  |
| R1 | C |   |   | C | R2 |
| R3 |   |   |   |   | R4 |

2F CONTACTS

#### General characteristics

|                          |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|
| PADS Reference           | 0085/000200                                                                       |
| Pin code                 | 101 ACFGK                                                                         |
| Contact arrangement      | 2F                                                                                |
| Coil configuration       | Single wound single coil                                                          |
| Resistance of winding(s) | 4Ω                                                                                |
| Rating                   | 500mV DC                                                                          |
| Weight                   | 1.5 kg                                                                            |
| Plugboard                | TY081-001<br>PADS Ref 0085/002081<br>See plugboard datasheet for more information |

#### Specific characteristics

|                                                                                                                                                          |                             |
|----------------------------------------------------------------------------------------------------------------------------------------------------------|-----------------------------|
| AC Immunity<br>Coil RMS voltage at 50 Hz frequency that can be applied without generating the closing of any of the front (N/O - Normally Open) contacts | This relay is not AC immune |
| DC Biasing<br>Maximum supply which can be applied connected in reverse polarity and shall not result in the breaking of any back contact of the relay    | This relay is not DC biased |

#### Electrical characteristics

|                             |                                 |
|-----------------------------|---------------------------------|
| Operate value               | 103mA - 117mA & 0.370V - 0.515V |
| Full operate value          | 146mA                           |
| Release value               | 0.68 o.c.1                      |
| Full release value          | Not specified in BR938          |
| Operate time                | Not specified in BR938          |
| Release time                | Not specified in BR938          |
| Interrupt time              | Not specified in BR938          |
| Signalling contact pressure | 28 g (1 oz) min                 |

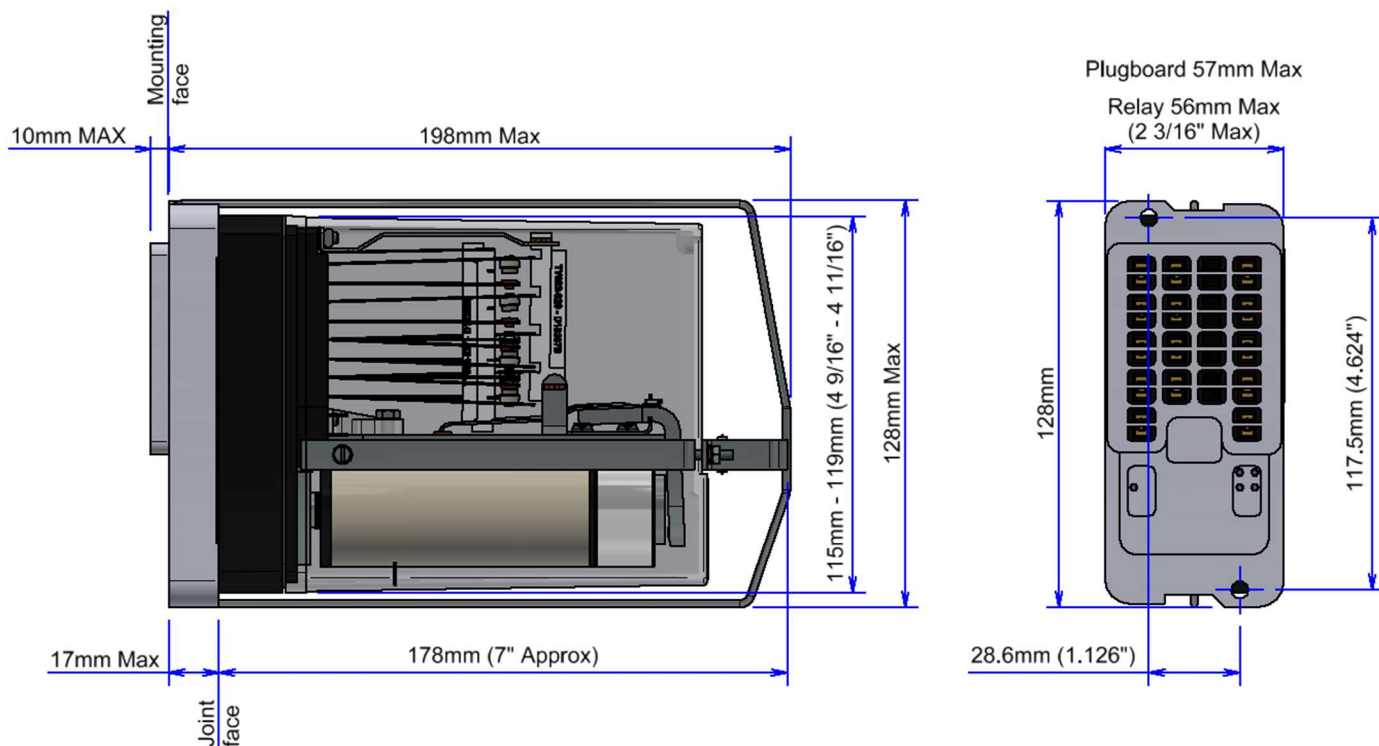
#### Product acceptance certification

Network Rail UK: PA05/04802

## Outline drawing

## DC Neutral Track Relay to BR938A

**TY150/GRP01**



Imperial dimensions in brackets are those specified in BR930  
 Dimensions illustration shows generic BR930 relay.

### Note

BR930 relays are optimised to switch traditional signalling circuits consisting of the coils of other relays and incandescent lamps. Their contacts are non-weld, not weld-no-transfer. Signalling schemes using these relays must be designed to operate safely within these constraints. Furthermore, it is the operators' responsibility to ensure compliance with the requirements of clauses 1.2, 5.2, 8.1, 8.2 and 12.1 of BR930.

 **Over 10 million Mors Smitt relays in use in rail transport applications worldwide!**

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