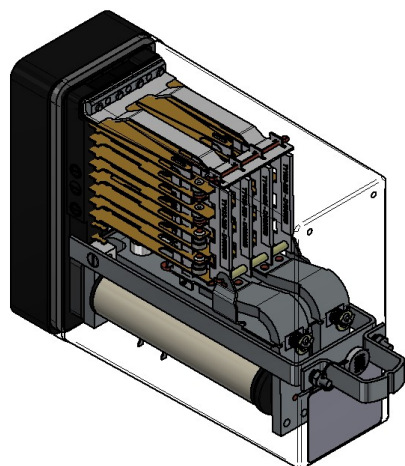


## /// BR930 Series - Electromechanical Signalling Relay

### TY156/GRP20

#### QNNH1 2×4F4B 24V

Twin DC Neutral Line Relay with high release voltage nominally to BR960.



#### Features

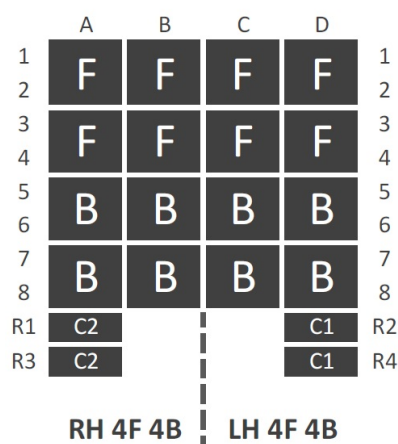
The TY156/GRP20 is a Twin 4F 4B Neutral Line Relay with high release voltage for general railway trackside signalling applications where special characteristics such as AC immunity, slow release etc. are not required.

Twin relays consist of two relays which in effect are electrically and mechanically independent, housed in a single enclosure to the dimensions of a single relay to BR930.

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



#### General characteristics

|                          |                                                                                   |
|--------------------------|-----------------------------------------------------------------------------------|
| PADS Reference           | -                                                                                 |
| Pin code                 | 050 ABGHJ                                                                         |
| Contact arrangement      | 4F 4B LH&RH                                                                       |
| Coil configuration       | Single wound twin coil                                                            |
| Resistance of winding(s) | 250Ω                                                                              |
| Rating                   | 24V DC                                                                            |
| Weight                   | 1.2 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 |

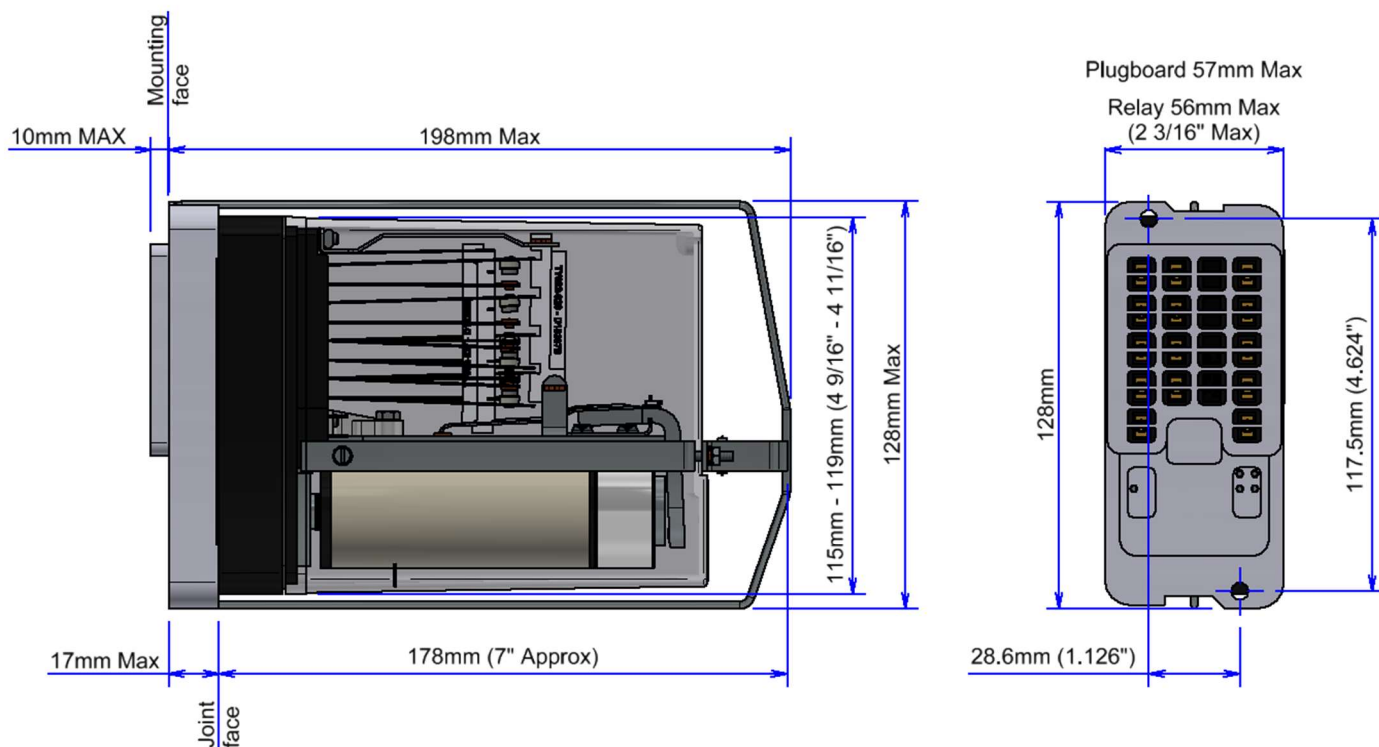
#### Electrical characteristics

|                             |                        |
|-----------------------------|------------------------|
| Operate value               | Not specified in BR960 |
| Full operate value          | 14-19.2V               |
| Release value               | 8.5V                   |
| Full release value          | Not specified in BR960 |
| Operate time                | Not specified in BR960 |
| Release time                | Not specified in BR960 |
| Interrupt time              | Not specified in BR960 |
| Signalling contact pressure | 28 g (1 oz) min        |

## Outline drawing

## Twin DC Neutral Line Relay with high release voltage nominally to BR960

**TY156/GRP20**



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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