

/// BR930 Series - Electromechanical Signalling Relay

TY154/GRP12

QBCA1 2HF4F4B 50V

AC immune DC biased contactor relay nominally to BR943.



Features

The TY154/GRP12 is a 2HF 4F 4B Contactor Relay for use in line circuits where the relay controls the motor circuit of a point machine or other similar heavy duty applications and a high release voltage is required. Equivalent to GEC's ZU1611. Of compact modular plug-in design it has non-weld signaling contacts, weld-no-transfer heavy duty 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	H		1		
2					2		
3	F	F	F		3		
4					4		
5	B	B	H		5		
6					6		
7	B	B	F		7		
8					8		
R1	C+				C-	R2	
R3						R4	

2HF 4F 4B CONTACTS

General characteristics

PADS Reference	0085/001965
Pin code	164 BCDGK
Contact arrangement	2HF 4F 4B
Coil configuration	Single wound single coil
Resistance of winding(s)	910Ω
Rating	50V DC
Weight	1.4 kg
Plugboard	TY081-001 PADS Ref 0085/002081 See plugboard datasheet for more information

Specific characteristics

AC Immunity 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	AC immune to 1000V 50hz
DC Biasing Maximum supply which can be applied connected in reverse polarity and shall not result in the breaking of any back contact of the relay	Immune to 1000VDC applied in the reverse sense.

Electrical characteristics

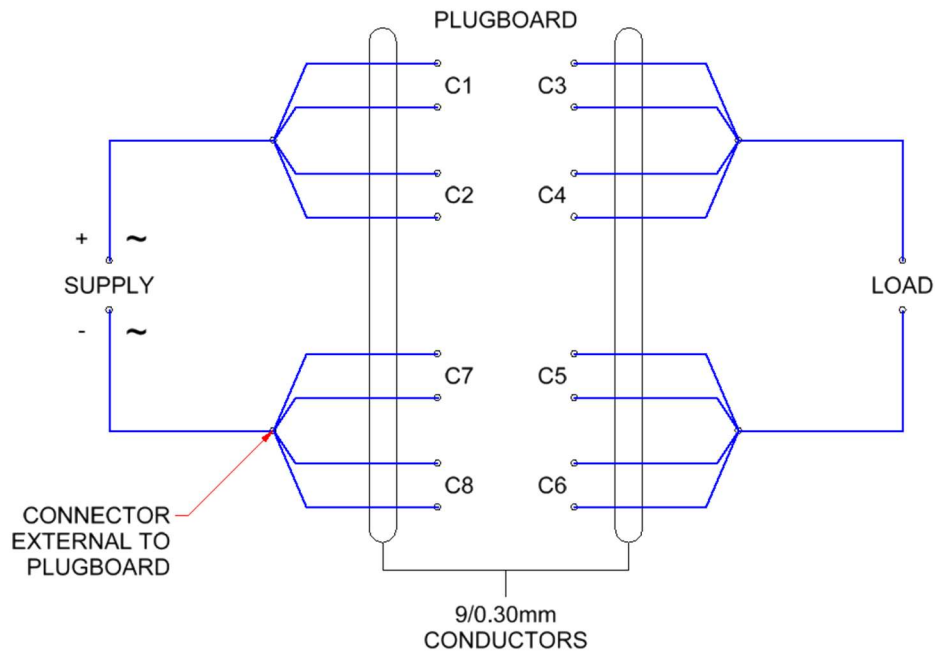
Operate value	Not specified in BR943
Full operate value	40.0V
Release value	7.5V
Full release value	14.0V
Operate time	Not specified in BR943
Release time	Not specified in BR943
Interrupt time	Not specified in BR943
Signalling contact pressure	28 g (1 oz) min

Product acceptance certification

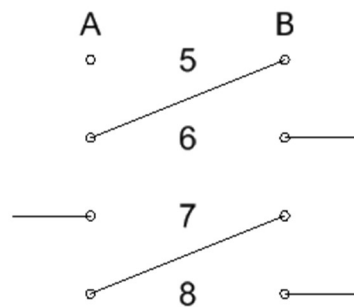
Network Rail UK: PA05/04802

Wiring Requirements

AC immune DC biased contactor relay nominally to BR943 **TY154/GRP12**



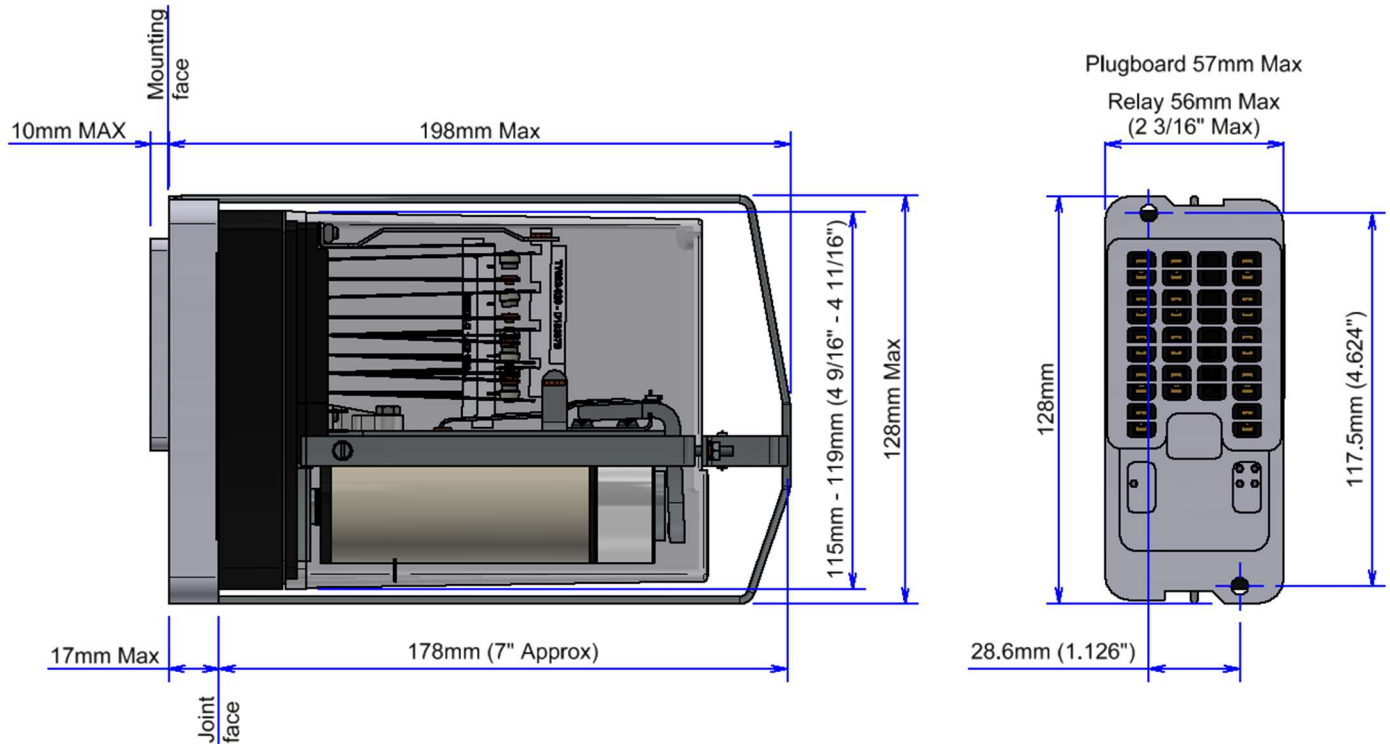
POLARITIES SHOWN **MUST** BE OBSERVED
 WHEN USING A DC SUPPLY



THIS ARRANGEMENT **MUST** BE USED
 TO GIVE DETECTION OF A WELDED
 HEAVY DUTY FRONT CONTACT

Outline drawing

AC immune DC biased contactor relay nominally to BR943 TY154/GRP12



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

Note

The signalling contacts of 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. Heavy duty contacts are weld-no-transfer not non-weld. Signalling schemes using these relays must be designed to operate safely within these constraints. Heavy duty contacts and the related proving contacts must be wired as described in BR943 appendix C. Furthermore, it is the operators' responsibility to ensure compliance with the following:

- General requirements of clause 5.2 of BR930 and clauses 8.1 and 8.2 of BR943
- Circuits switched by signalling contacts with the requirements of clauses 1.2

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