

/// BR930 Series - Electromechanical Signalling Relay

TY156/GRP09

QNND1 2×2F1B 50V

Twin Double Wound DC Neutral Line Relay to BR960.



Features

The TY156/GRP09 is a Twin 2F 1B Neutral Line Relay for general railway trackside signalling applications where special characteristics such as AC immunity, slow release etc. are not required.

Double windings allow use in railway signalling circuits where operation from either of two separate supplies is 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.

Contact arrangement

REAR VIEW OF RELAY

	Α	В	C	D	
1	F			F	1
2	Г			Г	2
3	F			F	3
4	Г			Г	4
5	В			В	5
6	D			D	6
7	C3+			C1+	7
8	C3-			C1-	8
R1	C4+			C2+	R2
R3	C4-	i	i	C2-	R4
	RH 2F 1B		LH 2	F 1B	

General characteristics

PADS Reference	0085/001760	
Pin code	060 ACGHJ	
Contact arrangement	2F 1B LH&RH	
Coil configuration	Double wound twin coil	
Resistance of winding(s)	1000Ω & 1000Ω	
Rating	50V DC	
Weight	1.2 kg	
Plugboard	TY081-001 PADS Ref 0085/002081 See plugboard datasheet for more information	

Electrical characteristics

Operate value	Not specified in BR960
Full operate value	40.0V
Release value	7.5V
Full release value	4.0V
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

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	This relay is not AC immune
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	This relay is not DC biased

Product acceptance certification

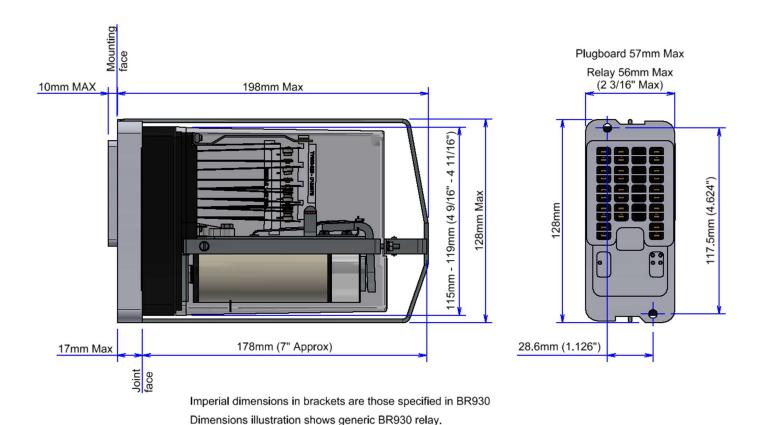
Network Rail UK: PA05/04802



Outline drawing

Twin Double Wound DC Neutral Line Relay to BR960

TY156/GRP09



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!

Mors Smitt Asia Ltd. 26/F., Casey Aberdeen House 38 Heung Yip Road, Wong Chuk Hang Hong Kong Tel: +852 2343 555 sales.msa@wabtec.com

Wabtec Netherlands B.V. Darwinstraat 10, 6718 XR Ede, Netherlands Tel: +31 (0)88 600 4500 sales.msbv@wabtec.com Mors Smitt France SAS 2 Rue de la Mandinière 72300 Sablé-sur-Sarthe, France Tel: +33 (0) 243 92 82 00 sales.msf@wabtec.com

Mors Smitt Technologies Ltd. 1010 Johnson Drive, Buffalo Grove, IL 60089-6918, USA mst_salessupport@wabtec.com. Mors Smitt UK Graycar Business Park, Burton on Trent, DE13 8EN, UK Tel: +44 (0)1283 357 263 sales.msuk@wabtec.com

RMS Mors Smitt 19 Southern Court, Keysborough, VIC 3173, Australia Tel: +61 (0)3 8544 1200 sales.rms@wabtec.com

(c) Copyright 2025

All rights reserved. Nothing from this edition may be multiplied, or made public in any form or manner, either electronically, mechanically, by photocopying, recording, or in any manner, without prior written consent from Mors Smitt. This also applies to accompanying drawings and diagrams. Due to a policy of continuous development Mors Smitt reserves the right to alter the equipment specification and description outlined in this datasheet without prior notice and no part of this publication shall be deemed to be part of any contract for the equipment unless specifically referred to as an inclusion within such contract. Mors Smitt does not warrant that any of the information contained herein is complete, accurate, free from potential errors, or fit for any particular purpose. Mors Smitt does not accept any responsibility arising from any party's use of the information in this document.