

BAGLA

Agile to Excel



BG LI-IN Electricals Ltd

Product Catalogue

Signalling & Rail Infrastructure

Introduction

BG LI-IN ELECTRICALS LTD, a BAGLA group company, established in 2000 and serving into Electrical, Electro-Mechanical & Electronics products for Automotive, White Goods and Railway applications.

Signalling & Rail Infrastructure market

Due to increasing performance requirements of railway lines and the need for modernisation and replacement of obsolete parts, more and more rail infrastructure managers all over the world use our economical and proven reliable technology for signalling and control applications.

We offer :

- Q - Style Signalling Relays (British Rail Standard BR930)
- Electrical Point Machine, 220mm stroke

Our production sites are focused on Quality and Environmental performance improvements by certification according to the IRIS (ISO/TS 22163), ISO 9001:2015 and ISO 14001:2015.





Signalling Relays

BG LI-IN have in-house expertise and manufacturing capability for Q – Style Signalling Relays complied to British Rail Standard BR930.

Currently 15 different types of relay designs are being manufactured meeting the strict requirement of Railway operators. BG LI-IN also has extensive design capabilities enabling other relay versions & types to be developed and manufactured upon request. All our Relays are approved by Research Development Standard Organization (RDSO), an approving authority of Indian Railways.





Dedicated Railway products manufacturing facility at Maharashtra, INDIA

BR930 relays are of modular plug-in design. Interlocking of the relay and plugboard is achieved by a pin code registration system which ensures that only those relays having the same pin code as the plugboard can be interchanged. The contact arrangement for each relay is as specified in the relevant BR standard and up to 16 pairs of contacts can be accommodated in the same housing. Contact pairs typically consist of a domed silver tip, mating with a flat, silver/carbon tip.

Our production capacity of signalling relays is flexible and responsive. Product quality is guaranteed by using the latest technology equipment, full proof process, well trained, dedicated, and experienced staff.



Relay type: QN1

Relay Non-AC Immune, Plug-in type, style – QN1 DC neutral line, 24V DC, 12F-4B/8F-8B contacts. Front & back contacts metal to carbon, complete with plug board, retaining clip and connectors. Confirming to BRS 930, IRS S 34 & IRS S 23. Interlocking Pin Code : ABCDE/ABCDF

Relay non AC Immune plug in type style QN1 DC, neutral line 50 VDC, 8F/8B contacts, front and back contacts metal to carbon with plug board, retaining clip and connectors conforming to BRS:930, IRS:S34 and IRS:S23 (as applicable). The interlocking code for this unit shall be ABCEF.

Relay Type	Contact Arrangement	Part code ordering code	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Voltage (Max.)	Release Voltage (Min.)
QN1	12F-4B	61008053	24	ABCDE	208	19.2	3.6
QN1	8F-8B	61008052	24	ABCDF	208	19.2	3.6
QN1	8F-8B	61008236	50	ABCEF	1500	40	7.5



Relay type: QNA1

Relay AC Immune, Plug-in type, Style QNA1 DC neutral line, 24V DC, 8F-8B/12F-4B contacts. Front & Back contacts metal to carbon, complete with plug board, retaining clip & connectors. Confirming to BRS 931A, IRS S 60, IRS S 34 & IRS 23. Interlocking Pin Code ABDGH/ABDFH.

Relay Type	Contact Arrangement	Part code ordering code	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Voltage (Max.)	Release Voltage (Min.)	Connectors Required
QNA1	12F-4B	61008167	24	ABDFH	208	19.2	3.6	34
QNA1	8F-8B	61008169	24	ABDGH	208	19.2	3.6	34



Relay type: QBCA1

Relay AC Immune, Plugin type, Style-QBCA1 DC biased point contactor, 24V DC, 2HF-4B contacts Front contacts (heavy duty) and back contacts metal to carbon, complete with plug board, retaining clips & connectors. Confirming to BRS:943, IRS: S-23, S-34 & S-60. Interlocking Pin Code BCEJK.

Relay Type	Contact Arrangement	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Voltage (Max.)	Release Voltage (Min.)	Connector Required	Remark
QBCA1	2F(HD)-4B	24	BCEJK	208	19.2	3.6	20	Heavy Current Control, Neutral relay



Relay type: QL1

Relay Plug-in type, style – QL1 magnetically latched neutral line, 24V DC, 11F-4B contacts Front & back contacts metal to carbon, complete with plug board, retaining clip and connectors. Confirming to BRS:935, IRS S-34 & S-23. Interlocking Pin Code ABDEG.

Relay Type	Contact Arrangement	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Voltage (Max.)	Release Voltage (Min.)	Connector Required	Remark
QL1	11F-4B	24	ABDEG	680 (Release) 145 (Pickup)	19.2	9.6	32	Latch Relay



Relay type: QSPA1

Relay AC Immune Plug-in type, Style –QSPA1 DC Neutral Line, slow to pick up, 24VDC, 8F-4B contacts. Front and Back contacts metal to carbon, complete with plug board, retaining clip & connectors. Confirming to BRS:933A, IRS: S60, IRS S 34 & IRS S23. Interlocking Pin Code ABDEJ.

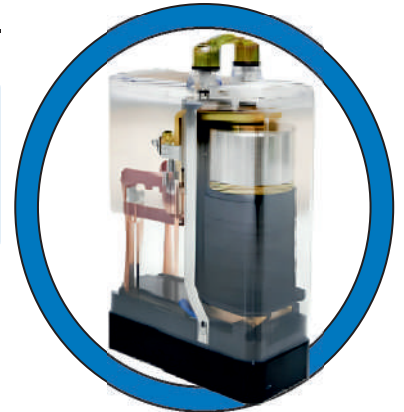
Relay Type	Contact Arrangement	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Voltage (Max.)	Release Voltage (Min.)	Connector Required	Difference in pick-up & drop away time Milli-sec	Dropaway Time Milli-sec	Remark
QSPA1	8F-4B	24	ABDEJ	195	19.2	3.6	26	≥400	≤200	Neutral relay



Relay type: QTA2

Relay AC Immune, Plug-in type, Style QTA2, DC neutral Track, 9 ohms, 2F-1B contacts, Front & back contacts metal to carbon, complete with plug board, retaining clip & connectors Confirming to BRS:939A, BRS 966-F2, IRS: S-34,S23 & S-60. Interlocking Pin Code FGHKX.

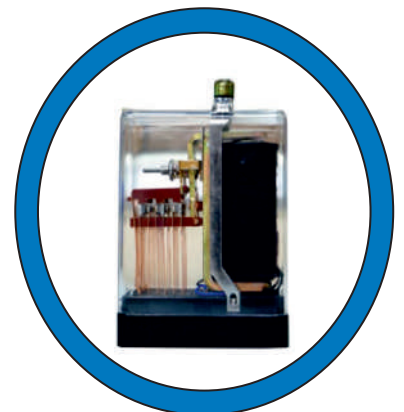
Relay Type	Contact Arrangement	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Current (Max.)	Release Current (Min.)	Connectors Required	Remark
QTA2	2F-1B	1.4V	FGHKX	9	117mA	68%	8	Track relay



Relay type: QN1K

Relay non AC Immune, Plug-in type, Style- QN1K DC neutral Line, 24V DC, 1000 Ohms, 6F-6B contacts. Front and back contacts metal to carbon, complete with plug board, retaining clip & connectors. Confirming to BRS:930, IRS: S-34 & S-23. The interlocking pin code for this unit shall be BDEKX.

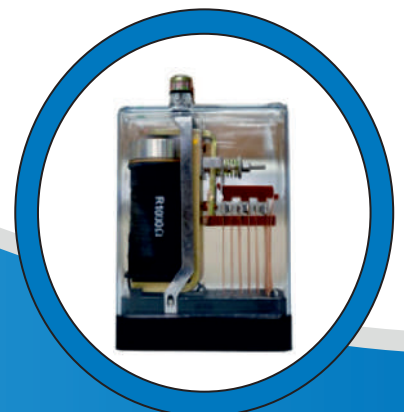
Relay Type	Contact Arrangement	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Voltage (Max.)	Release Voltage (Min.)	Connectors Required	Operate Time (Milli Sec)	Release time (Milli Sec)
QN1K	6F-6B	24	BDEKX	1000	19.2	3.6	26	≤200	≤200



Relay type: QNA1K

Relay, AC Immune, Plug-in-type, Style "QNA1K" ACI DC Neutral line, 24VDC, 1000 ohms 6F.6B contacts, front contacts metal to carbon and back contacts metal to carbon. Complete with plug board, retaining clip & connectors confirming to BRS:931A IRS:S-23,S-34 & S-60. The interlocking pin code CDEKY.

Relay Type	Contact Arrangement	Rated Voltage	Interlock code	Coil Resistance (Ohms)	Pick-Up Voltage (Max.)	Release Voltage (Min.)	Connectors Required	Operate Time (Milli Sec)	Release time (Milli Sec)
QNA1K	6F-6B	24	CDEKY	1000	19.2	3.6	26	≤200	≤100



Relay type: QNN1

Relay Non-AC Immune, Plug-in type, style – QNN1 twin DC neutral line, 24V DC, 4F-4B/6F-2B contacts each for LH & RH. Front & back contacts metal to carbon, complete with plug board, retaining clip and connectors. Confirming to BRS:960, IRS S 34 & IRS S 23. Interlocking Pin Code ACEHJ/ACDEK.

Relay Type	Contact arrangement	Part code/Ordering code	Rated voltage	Interlock code	Coil Resistance (Ohms)	Pick Up Voltage (Max.)	Release Voltage (Min.)	Remark
QNN1	LH/RH-6F-2B	61008319	24	ACDEK	320	19.2	3.6	Neutral relay
QNN1	LH/RH-4F-4B	61008175	24	ACEHJ	320	19.2	3.6	Neutral relay
QNN1	LH/RH-6F-2B		50	CDEFK	1750	40	7.2	Neutral relay
QNN1	LH/RH-4F-4B		50	CFGHJ	1750	40	7.2	Neutral relay



Relay type: QNNA1

Relay AC Immune, Plugin type, Style – QNNA1 twin DC neutral line, 24V DC, 4F-4B/6F-2B contacts each for LH & RH. Front & back contacts metal to carbon, complete with plug board, retaining clip and connectors. Confirming to BRS:960, IRS:S60, IRS S 34 & IRS S 23. Interlocking Pin Code ACDHJ/CDEHX.

Relay Type	Contact arrangement	Part code/Ordering code	Rated voltage	Interlock code	Coil Resistance (Ohms)	Pick Up Voltage (Max.)	Release Voltage (Min.)	Remark
QNNA1	LH/RH-6F-2B	61008300	24	CDEHX	230	19.2	3.6	Neutral relay
ANNA1	LH/RH-4F-4B	61008174	24	ACDHJ	230	19.2	3.6	Neutral relay



Relay type: QECX/QECX-61

Relay, Plug-in-type, Style "QECX/QECX-61" Universal AC Lamp proving LED ECR Relay, 110VAC, 4F.4B contacts, front contacts metal to carbon and back contacts metal to carbon. Complete with plug board, retaining clip & connectors. The interlocking pin code ABDHK.

Relay Type	Contact arrangement	Rated voltage	Interlock code	Coil Resistance (Ohms)	Release Voltage (Min.)	Operate current (Max.)	Connectors required
QECX/ QECX-61	4F/4B	110 VAC	ABDHK	35	60 Ma	90 mA	16



Relay type: QBAT

Relay, Plug-in-type, Style "QBAT" DC Biased Track Relay, 24 VDC, 2F.2B contacts, 9 ohm, front contacts metal to carbon and back contacts metal to carbon.

Complete with plug board, retaining clip & connectors.

The interlocking pin code ABEJX.

Relay Type	Contact arrangement	Rated voltage	Interlock code	Coil Resistance (Ohms)	Pick cureent (Max.)	Release current (Min.)	Connectors required
QBAT	2F/2B	1.4 VDC	ABEJX	9	175	95	4



Relay Selection Guide

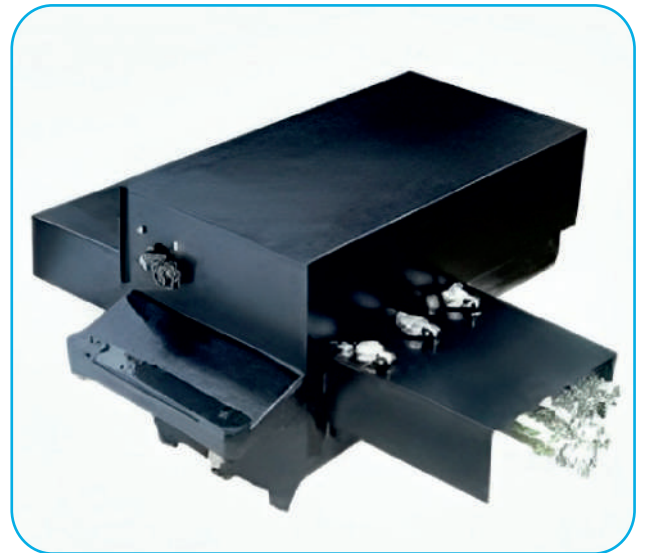
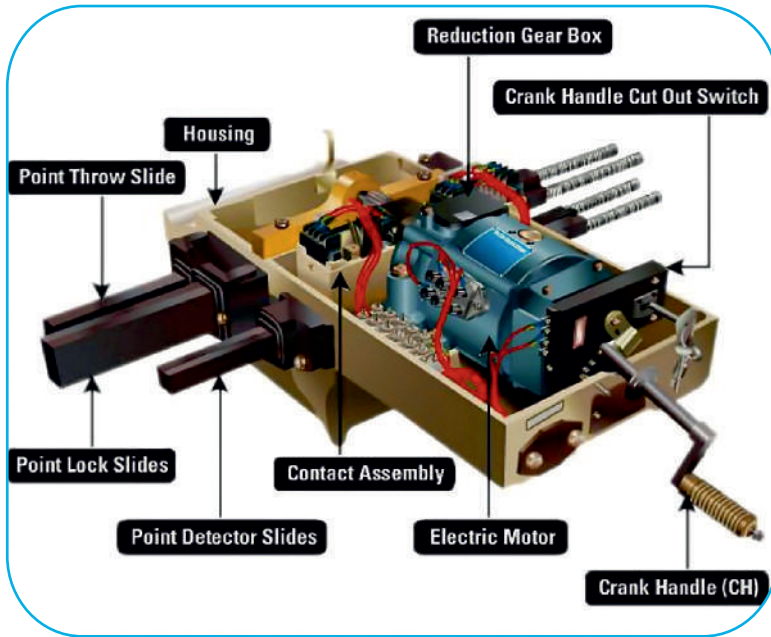
Order Code	RELAY	Contact	Rated Voltage	Coil Resi. Ohm	Interlock Code
61008052	QN1	8F/8B	24 VDC	208	ABCDF
61008053	QN1	12F/4B	24 VDC	208	ABCDE
61008236	QN1	8F/8B	50 VDC	1500	ABCEF
61008236	QN1	12F/4B	50 VDC	1500	ABDEF
61008167	QNA1	12F/4B	24 VDC	208	ABDFH
61008245	QNA1	8F/8B	24 VDC	208	ABDGH
61008175	QNN1	4F/4B	24 VDC	320	ACEHJ
61008319	QNN1	6F/2B	24 VDC	320	ACDEK
61008237	QNN1	6F/2B	50 VDC	1750	CDEFK
61008618	QNN1	4F/4B	50 VDC	1750	CFGHJ
61008269	QBCA1	2HF/4B	24 VDC	208	BCEJK

Order Code	RELAY	Contact	Rated Voltage	Coil Resi. Ohm	Interlock Code
61008270	QL1	11F/4B	24 VDC	680/150	ABDEG
61008268	QSPA1	8F/4B	24 VDC	195	ABDEJ
61008520	QECX/QECX-61	4F/4B	110 VAC	35	ABDHK
61008174	QNNA1	4F/4B	24 VDC	230	CDEHX
61008300	QNNA1	6F/2B	24 VDC	230	ACDHJ
61008173	QT2	2F/2B	1.4 VDC	9	DEFJX
61008176	QTA2	2F/1B	1.4 VDC	9	FGHKX
61008271	QBAT	2F/2B	1.4 VDC	9	ABEJX
61008169	QN1K	6F/6B	24 VDC	1000	BDEKX
61008168	QNA1K	6F/6B	24 VDC	1000	CDEKY

Electric Point Machine

An electric point machine is a device used in Railway Signalling, which can perform the function of unlocking and operating the point switches in the desired position and lock them and detect their correct setting with the aid of an electric motor.

Electric Point Machine 220 mm stroke for Thick Web Switch confirm to Specification No. IRS: S24-2002 Amendment 1.



Throw of Point machine	Time of operation (max.)	Current consumption	Test voltage	Test load on throw bar	Slipping load	Stalling load (Min.)
220 mm +4/-1	5.5 sec	≤ 5.5 amp	110 VDC	450 kg	≤ 580 kg	1000 kg

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BAGLA

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BG LI-IN Electricals Ltd

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BG LI-IN
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