

(भारत सरकार) GOVERNMENT OF INDIA
(रेल मंत्रालय) MINISTRY OF RAILWAYS
(रेलवे बोर्ड) RAILWAY BOARD

संख्या 2018/Sig/7/6-RVNL /1

New Delhi dt.16.09.2019

Executive Director (Co-Ord)/Signal
RDSO, Lucknow

विषय: Proposal for Use of Metal to Metal Relays as ECRs in lieu
of Q series METAL to CARBON (QECX) Relays in
Electronic Interlocking (EI).

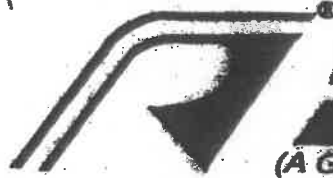
संदर्भ: PED (S&T) RVNL's letter no. RVNL/S&T/RDSO dated
12.09.2019.

Please, find enclosed herewith a copy of the letter referred above
regarding Proposal for Use of Metal to Metal Relays as ECRs in lieu of Q
series METAL to CARBON (QECX) relays in Electronic Interlocking (EI).

RDSO is requested, to examine the proposal and offer comments.

DA: As above (1 Page)


Executive Director (Signal Development)



No.RVNL/S&T/RDSO

Dated: 12 /09/2019

Additional Member (Signal)
Railway Board
NEW DELHI

Sub:- Proposal for Use of METAL to METAL relays as ECRs in lieu of Q series METAL to CARBON (QECX) Relays in Electronic Interlocking(EI).

Electronic Interlocking is being provided over Indian Railways along with METAL to CARBON relays as interface relays for sending/receiving input to/output from the system.

EI is being provided in place of conventional Pls and RRIs for Doubling 3rd line, Gauge Conversions, New Line & replacements of existing installations works. Due to this there is huge requirement of metal to carbon relays and RDSO approved suppliers are not able to meet the requirement of METAL to CARBON relays; resulting in extraordinary delay in commissioning of many projects.

As a convention, logic circuit of Electronic Interlocking is based on Q series metal to carbon contacts. Different type of metal to carbon contact relays are being used by various EI manufactures. Most common Q series relays used by EI manufacturers are QNI, QNAI and QECX61 relays.

Rpdnaur and Gorakhpur S&T workshops are making QNI and QNAI relays and somewhat able to come for rescue in case of exigencies. However, QECX61 ECR relays are not being manufactured by S&T workshops and are required in high quantity in all EIs. Generally the requirement of QECX61 ECR relays in any EI is approximately 20% of the total number of relays used.

Conventional metal to metal contact ECRs are still being produced in India, though with low demand. It is understood that only issue in using metal to metal contact Relays for ECRs is probability of welding of contacts resulting in wrong indication. However, in case of EI, if a wrong unsafe indication is detected as compared to the output e.g. with HR relay dropped and HECR energised, the EI will shut down to a safe mode. Though this probability is extremely low but cannot be ruled out.

Considering the scenario of increasing demand of Q series relay vis-à-vis production capacity, it is requested that METAL to METAL type ECRs may be used for Electronic Interlocking circuit. This will not only reduce the crisis of relays at present and expedite the commissioning of projects but will also sustain production of metal to metal relays which will be required by Indian Railway as spares for its existing Pls / RRIs.


(Sanjay Dungekar)
Principal Executive Director/S&T

Copy to:-

Sr. ED/Signal
RDSO, Manak Nagar, Lucknow