

East Central Railway

Technical Circular No.- 01/2020

Sub:- Use of RDSO approved fuses in different signaling Circuits
Ref:- ECR /S&T/Tech.Circular/185 dated 10.10.2009(Technical Circular No. 21)

Instructions regarding details of RDSO approved fuses and their ratings to be used in different signaling circuits were previously circulated vide this office Technical Circular No. 21.The same is again being reiterated below for ready reference:-

1. Instruction already exists in SEM Part-II for provision of correct rating of fuses in different signaling circuits.
2. All signaling circuits shall be provided with the suitable capacity of fuses.
3. Suitable capacity of fuses can be measured at the time of commissioning.
4. Capacity of fuses should not be less than 2.5 times the rated current.
5. The standard rating of non-deteriorating type fuses used in different signaling circuits are as follows:-

S.N.	Circuits	Capacity of fuse
(i)	Track circuits	4 Amp
(ii)	Relay circuits-Internal & External	2 Amp
(iii)	Signal located up to 800 meter	2 Amp
(iv)	Signal located beyond 800 meter	1 Amp
(v)	High Voltage Point Machine	
(a)	For one Machine or two machines working in series in crossover	10 Amp
(b)	Two machines working in parallel in a cross-over Point	16 Amp

6. When fuse is not provided with fuse blown off indication, additional indication circuit may be provided.
7. Fuses shall be of an approved type. Normally non-deteriorating type, 'G' type, alarm or cartridge type fuses shall be used.
8. At the time of commissioning of any signaling installation, the normal load current of every circuit shall be measured and recorded. These recorded values shall be checked with the theoretically obtained values. Fuse of correct capacity which should be not less than 2.5 times the rated current, shall be provided.
9. When there is case of fuse blowing off, the concerned circuit current shall be measured and compared with the original recorded value. If there is variation,

action shall be taken to locate and remove the defect before a new fuse is inserted.

In addition to above, following should also be strictly followed:-

10. It has also been decided by the competent authority that, Fuses of all the circuits are required to be replaced once in five years. A register shall be maintained with details of circuits, load current, rating of fuses in each circuit, circumstances under which the fuse was replaced (whether Periodical or otherwise).
11. Recently, Lot of failures related to weakening of electrolytic condenser has been noticed, therefore it has been decided by competent authority that it should be replaced in once in five year. A register shall also be maintained to record the circumstances under which it has been replaced (periodical or otherwise).

This has been issued with the approval of PCSTE



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Docket No.-ECR/S&T/Tech.Circular/185

Dated 07.08.2020

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for information & n/a please.