

# RD - Differential Detector



The Differential Detector (RD) measures the True RMS current absorbed by the lamp of the Colour Light Signals Italian SDO type and excites an external relay called KS (typical Italian FS 58 type), only if the measured RMS current value is within the preset range. The RD is approved according to the RFI DTCDNSSSTB SF IS 05 760 B Italian Railway Specification.

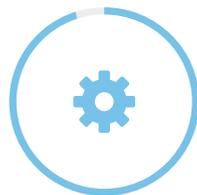
The RD measures the current both in static and in flashing mode of the driven selected SDO aspect. Anyway if the current conditions are correct the KS relay will remain in the energized state. Thanks to high configurability of the preset thresholds it can be installed in any installation configuration: Lamp or Led signals; with or without existing Encoders; without using additional Shunt resistors.

The RD is equipped with Dip-Switches to set all the necessary current ranges. Once configured they are protected by means of a transparent cover that can be sealed to avoid accidental modifications. The RD (**cat/prog 825/040**) is supplied in a box with the right dimensions of a FS58 relay and it suites with the relative counter-plates. The RD guarantees a high level of reliability in typical railway Signalling environments (sentry station, station) taking into account different sources of environmental stresses (vibration, thermal excursions, over voltages etc.) according to the IS 402 Railway Regulations (Installation environment A5).



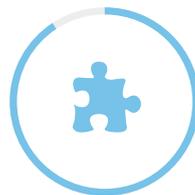
## SAFETY

The RD is made with a safety architecture that ensures SIL4 safety integrity level, according to the Cenelec EN 50129 and EN 50126 regulations.



## CONFIGURABILITY

By means of Dip-Switches it is possible to set and chose a range of current between 32 different values for the static condition and 1 of 32 for the flashing condition. Through the Dip-Switches you can set one of the three possible intervention times of KS relay, to cover all the installation requirements.



## COMPATIBILITY

The RD is mechanically and electrically suitable with the previous RD (**825/030**, **825/735**, **825/779** and **899/033**) and does not require any modification to the Signalling System (IS).



## AUTO CONFIGURATION

The RD display shows the measured current but it also suggests the threshold current and the times/intervals to set in case of specific connected Signal/Encoder.