

# MRL TR01 Instantaneous Fast Trip relay

## Specifications

- Very fast contacts (less than 5ms operate time)
- Heavy duty NO contacts (15A @ 110Vdc)
- Front LED indicator (Trip indicator)
- Front safety LED indicator
- Possibility to trip even when the relay DC supply is missed
- Latched trip LED
- Withdrawable case

## Inputs

- One digital input for *trip* signal  
Vin unlock, range: 70+/-10 to 180 V dc  
Nominal Voltage: 110 V dc

## Output contacts specifications

- Two N.O. heavy duty & very fast contacts:
  - Operate time: Pick up: < 5 m Sec
  - Drop out: < 6 m Sec
  - Contact material: AgSnO<sub>2</sub>
  - Contact gap: 2.1 mm
  - Permanent current: 16A
  - Max peak current: 30 A for 1 Sec
  - 120 A for 5 m Sec
- Breaking current capacity: At 125 V dc: 12 A
- At 110 V dc: 15 A
- Breaking current capacity inductive with  
L/R 40 m Sec: At 125 V dc: 2 A
- At 110 V dc: 2.5 A
- Max. switching voltage: 250 V dc, 400 V ac

**Note: Other contacts should not be connected in series with these very fast and heavy duty contacts.**

## For all contacts

Mechanical life: 10<sup>7</sup> operations  
Operating temperature: -20 °C to 70 °C  
Storage temperature: -20 °C to 70 °C  
Max operating humidity: 90% at max 40 °C  
Insulation between input and output contacts: 6 KV  
Dielectric strength between open contacts: 1.5 KV  
Ambient altitude: < 2000 m

**Although MRL TR01 relay needs power to operate with all facilities, but if its DC power is missed, it still trips when the trip digital input is excited.**

**There is an additional changeover contact for watchdog, which changes its state during DC power missing.**

**It is strictly recommended to use the watchdog contact to detect the relay DC power interruptions.**

- Six changeover heavy duty contacts:
  - Operating time: Pick up: < 15 m Sec
  - Drop out: < 4 m Sec
  - Contact material: AgCdO
  - Contact gap: 3 mm
  - Permanent current: 16A
  - Max peak current: 30 A for 1 Sec
  - Breaking current capacity: At 125 V dc: 0.6 A
  - At 110 V dc: 0.8 A
  - Max. switching voltage: 250 Vdc, 400 V ac