Low voltage distribution

Fuse Monitoring
100VAC to 690 VAC
Fuse Monitoring, Types FM 100 to 260 and FM 380 to 690

The FM fuse monitoring provides a facility for an immediate tripping option after a fuse blown:
- no danger for 2-phase motor loading
- prevents unsafe neutral voltages

- Small and compact size
- No need for external supply voltage
- Wide voltage range 100V...260VAC and 380V...690VAC
- Full operational ability even with phase unbalance
- Safe and reliable
- EMC-tested
- Operates with all standard fuses
- Suitable for monitoring the fuses in capacitor banks

The FM Fuse Monitoring can be used with fuse links of all types and sizes. Striker-type fuses are not required which reduces overall cost. The red pilot light indicates any fuse blown and 1 N/O. + 1 N/C. auxiliary contacts give an alarm or a trip signal.

The FM Fuse Monitoring has a green LED indicating normal status (a voltage on fuse holders). The green LED turns off and the red LED on, in the case of one or more fuses blown. The FM Fuse Monitoring is automatically reset after the blown fuses have been replaced.

Extreme safe operation has been ensured by testing the FM unit with a 14.8 kV impulse voltage across the blown fuse and with 5 kV/1 min voltage test between the power circuit and auxiliary contacts.

The wires on the supply side are double insulated. For the new ITC-switch fuse, there is a snap-on mounting available on to the side of the switch. For other ITC-switchfuses or NH-fusebases, the fuse monitoring can be screwmounted with mounting feet or snap on DIN rail when using the FM model.

Ordering Information

Fuse Monitoring, Suitable for 3-phase circuits (can be used for single-phase).
- includes the auxiliary contacts 1NO + 1NC.

### Reference | Cat Number | Rated voltage [Vac] | Mounting on | Weight [kg] | Pack [pcs]
---|---|---|---|---|---
N229276A | FM100/260 | 100...260 | ITC | 0.14 | 1
P229277A | FM380/690 | 380...690 | ITC | 0.14 | 1
S236824A | FM100/260RD | 100...260 | Rail DIN | 0.19 | 1
T236825A | FM380/690RD | 380...690 | Rail DIN | 0.19 | 1

### Mounting accessories
Includes 6 pcs crimp terminals.

| Reference | Cat Number | For switch size ITC/ITCP | Crimp terminal size [mm] | Pack [pc] | Description |
---|---|---|---|---|---|
J229272A | ITC/ITCP 32,63,125,160 | 2.8 - 0.8 | 1 | 6 x Terminals 2.8 mm |
K229273A | | 6.3 - 0.8 | 1 | 6 x Terminals 6.3 mm |
L229274A | ITC/TTCP 250,400,630,800 | 6.3 - 0.8 | 1 | 6 x Clamps for fitting - 2.5 or 5mm Cubars |
### Technical Data, Type FM 690

#### Power Circuit
- **Connection wire no:s 1, 3, 5**
- **Connection wire no:s 2, 4, 6**
- **Rated voltage FM 100 to 260**
- **Rated voltage FM 380 to 690**
- **Voltage tolerance**
- **Power consumption**
- **Rated frequency**
- **Measuring impedance**
- **Impulse test voltage (1.2 / 50 μs)**

#### Output terminals (Auxiliary contacts)
- **Terminals:**
  - FM --/--
  - FM --/--RD
- **Wire section:**
  - Flexible Cu: 1.5 mm²
  - Rigid Cu: 2.5 mm²
- **Rated current Ie:**
  - 4A / 250Vac / AC1
  - 3A / 250Vac / AC15
  - 2A / 24Vdc / DC13
- **Minimum for sure operation**
- **Rated voltage / max. breaking voltage**
- **Rated breaking capacity**
- **Contact material**

#### Characteristics
- **Specified ambient air temperature range**
- **Transport and storage temperature range**
- **Operating time**
- **Overvoltage category / Pollution severity**
- **Dielectric test voltage:**
- **EMC:**
  - Emission
  - Radiated Emission
  - Harmonic Currents Emissions
  - Immunity
  - Electrostatic Discharge (ESD)
  - RF Radiated Field
  - Electrical Fast Transient (EFT)
  - RF Electromagnetic Conducted
  - RF Electromagnetic Field (GSM)
- **Magnetic field immunity**
  - Continuous
  - Pulse 1.2 / 50 μs
- **Housing**
- **Degree of protection:**
- **Weight**
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**Contact Functions**

![Contact Function Diagram](image)

**Dimension Drawing (mm)**

![Dimension Drawing](image)

**Output connection**

![Output Connection Diagram](image)