



### Main

|  |   |
|--|---|
| Relay application                                  | Residual current protection relay   |
| Range of product                                   | Vigirex   |
| Device short name                                  | RH99M   |
| Earthing system                                    | IT<br>TN-S<br>TT  |
| [Ue] rated operational voltage                     | 12...24 V AC 50/60 Hz<br>12...48 V DC   |
| Fault current detection threshold                  | 80... 100 % of IDn  |
| Earth-leakage protection class                     | Class A si<br>Class AC  |
| Residual earth-leakage sensitivity adjustment type | Adjustable 9  |
| Residual earth-leakage time delay adjustment type  | Instantaneous 0.03 A<br>Adjustable 9 settings 0.03...30 A 0...4.5 s                     |
| Test function                                      | Local<br>Remote test  |
| Monitoring   | Electronics (continuous)<br>Power supply (continuous)<br>Relay/sensor link (continuous) |
| [Uimp] rated impulse withstand voltage             | 8 kV  |
| Minimum load                                       | 10 mA at 12 V   |
| Signalling output current                          | 8 A   |
| Overvoltage category                               | IV  |
| Power consumption                                  | 4 VA  |
| Power consumption                                  | 4 W   |
| Mounting support                                   | DIN rail  |
| Tamperproof of settings                            | Protected by sealable cover   |

### Complementary

|                               |   |
|-------------------------------|---|
| Alarm current detection range | 80...100 %  |
| 9 mm pitches                  | 6   |
| Height                        | 97 mm   |
| Width                         | 54 mm   |
| Depth                         | 74 mm   |
| Product weight                | 0.3 kg  |
| Mechanical robustness         | Fire resistance conforming to IEC 60695-2-1<br>IK protection 2 joules: IK07 conforming to EN 50102<br>IP protection: IP20 conforming to IEC 60529<br>IP protection: IP30 conforming to IEC 60529<br>IP protection: IP40 conforming to IEC 60529<br>Vibrations 13.2...100 Hz: 0.7 g<br>Vibrations 2...13.2 Hz: +/- 1 mm  |
| Auxiliary connection terminal | Auxiliary power supply: terminal block 0.2...2.5 mm <sup>2</sup> (AWG: 24...12) for flexible<br>Auxiliary power supply: terminal block 0.2...2.5 mm <sup>2</sup> (AWG: 24...12) for rigid<br>Auxiliary power supply: terminal block 0.25...2.5 mm <sup>2</sup> (AWG: 24...12) for flexible<br>Fault: screw terminal 0.2...2.5 mm <sup>2</sup> (AWG: 24...12) for flexible<br>Fault: screw terminal 0.2...4 mm <sup>2</sup> (AWG: 24...12) for rigid<br>Fault: screw terminal 0.25...2.5 mm <sup>2</sup> (AWG: 24...12) for flexible<br>Relay test and fault reset: screw terminal 0.14...1 mm <sup>2</sup> (AWG: 26...16) for flexible<br>Relay test and fault reset: screw terminal 0.14...1.5 mm <sup>2</sup> (AWG: 26...16) for rigid<br>Sensor: screw terminal 0.14...1 mm <sup>2</sup> (AWG: 26...16) for flexible<br>Sensor: screw terminal 0.14...1.5 mm <sup>2</sup> (AWG: 26...16) for rigid<br>Voltage presence: screw terminal 0.2...2.5 mm <sup>2</sup> (AWG: 24...12) for flexible |

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Voltage presence: screw terminal 0.2...4 mm<sup>2</sup> (AWG: 24...12) for rigid  
 Voltage presence: screw terminal 0.25...2.5 mm<sup>2</sup> (AWG: 24...12) for flexible  
 Relay test and fault reset : screw terminal 0.25...0.5 mm<sup>2</sup> (AWG: 26...16) for flexible  
 Sensor : screw terminal 0.25...0.5 mm<sup>2</sup> (AWG: 26...16) for flexible

|                       |  |
|-----------------------|--|
| Wire stripping length | Auxiliary power supply: 7 mm top<br>Fault: 8 mm bottom<br>Relay test and fault reset: 5 mm bottom<br>Sensor: 5 mm top<br>Voltage presence: 8 mm bottom                       |
| Tightening torque     | Auxiliary power supply : 0.6 N.m top<br>Fault : 0.6 N.m bottom<br>Relay test and fault reset : 0.25 N.m bottom<br>Sensor : 0.25 N.m top<br>Voltage presence : 0.6 N.m bottom |

## Environment

|  |   |
|--|---|
| Class of protection against electric shock | Class II  |
| Immunity to microbreaks                    | <= 60 ms  |
| Electromagnetic compatibility              | Conducted and radiated emissions: B conforming to CISPR 11<br>Conducted radio-frequency immunity test: 3 conforming to IEC 61000-4-6<br>Electrostatic discharge immunity test: 4 conforming to IEC 61000-4-2<br>High-energy conducted susceptibility: 4 conforming to IEC 61000-4-5<br>Low-energy conducted susceptibility: 4 conforming to IEC 61000-4-4<br>Radiated susceptibility: 3 conforming to IEC 61000-4-3 |
| Climatic withstand                         | Heat loss: 4.45 MJ<br>Pollution degree: 3   |
| Ambient air temperature for operation      | -35...70 °C   |
| Ambient air temperature for storage        | -55...85 °C   |