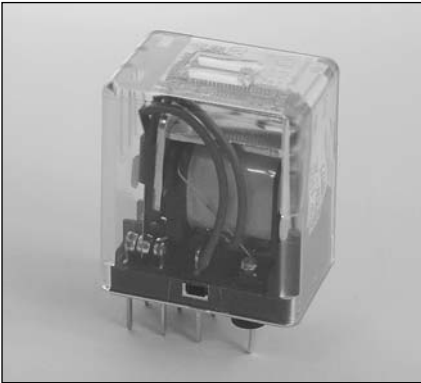


FR 11P - miniature relay



Miniaturised PCB-relay with three change-over contacts for industrial electronics.

order numbers

PCB version FR11P.VDC/VAC

contact specifications

(see data sheet for curves)

| | |
|----------------------------|---|
| contact material | AgCuNi |
| contact type | single contact |
| nominal switching capacity | 250 VAC 4 A AC1 500 VA |
| electric life expectancy | app. 150'000 operations 250 VAC 2A AC1 (360 Schaltung/h) |
| inrush current max. | 15A for 200 ms |
| switching current range | 50 mA to 2A |
| switching power range | 0,3VA(W) to 500VA |

options

contact material AgCuNi
 AgCuNi+Au10µm
(see data sheet for contacts)

general data

| | |
|-----------------------------------|-----------------------------------|
| mechanic life expectancy | > 50 x 10 ⁶ operations |
| mechanical switching frequency | 20 Hz |
| pull-in time | 8 ms at DC / 3-9 ms at AC |
| release time | 2,5 ms at DC / 4-12 ms at AC |
| bounce time normally open contact | 3 ms at DC / 1-8 ms at AC |
| bounce time break contact | 8 ms at DC / 3-16 ms at AC |
| shock resistance | AK: >10 g |
| test voltage, coil/contact | 2'000 V _{eff} |
| test voltage, open contact | 1'000 V _{eff} |
| insulation resistance | 250 MΩ |
| weight | 35 g |
| installation situation | any |
| ambient temperature | max. +60 °C |

accessories

PCB socket ZB 87
metal clamp ZFR004

tests, instructions

certificates UL, CSA, VDE

FR 14P - miniature relay



Miniaturised PCB-relay with three change-over contacts for industrial electronics.

order numbers

PCB version FR14P.VDC/VAC

contact specifications

(see data sheet for curves)

| | |
|----------------------------|--|
| contact material | AgCuNi |
| contact type | single contact |
| nominal switching capacity | 250 VAC 4 A AC1 1000 VA |
| electric life expectancy | app. 200'000 operations 250 VAC 4A AC1 (360 operations/h) |
| inrush current max. | 15A for 200 ms |
| switching current range | 50 mA to 4A |
| switching power range | 0,3VA to 1000VA |

options

contact material AgCuNi
 AgCuNi+Au10µm
(see data sheet for contacts)

general data

| | |
|-----------------------------------|-----------------------------------|
| mechanic life expectancy | > 50 x 10 ⁶ operations |
| switching frequency mechanical | 20 Hz |
| pull-in time | 8 ms at DC / 3-9 ms at AC |
| release time | 2,5 ms at DC / 4-12 ms at AC |
| bounce time normally open contact | 3 ms at DC / 1-8 ms at AC |
| bounce time break contact | 8 ms at DC / 3-16 ms at AC |
| shock resistance | AK: >10 g |
| test voltage, coil/contact | 2'000 V _{eff} |
| test voltage, open contact | 1'000 V _{eff} |
| insulation resistance | 250 MΩ |
| weight | 38 g |
| installation situation | any |
| ambient temperature | max. +60 °C |

accessories

PCB socket ZB 107
metal clamp ZFR004

tests, instructions

certificates UL, CSA, VDE