



RPE and RNE series of electronic (PNP and NPN) proximity switches eliminates negative features of reed relays. Those switches are fully electronic, which brings excellent properties and long lifetime. We also offer reed switches, series RCE. All series switches can be used with cylinders series M\*.

## Technical data

| Description                            | Value / Switch type               |  |                               |
|--|-----------------------------------|--|-------------------------------|
|  | RCE (reed switch)                 | RPE (solid state switch, PNP)                    | RNE (solid state switch, NPN) |
| Supply voltage $U_b$ [V]               | 5 to 230 DC or AC                 | 5 to 30 DC                                       | 5 to 30 DC                    |
| Max. switching power [W / VA]          | 10                                | 1.5  | 1.5                           |
| Continuous current $I_a$ [mA]          | $\leq 100$                        | $\leq 50$  | $\leq 50$                     |
| Power consumption [mA] at 24V on-state | —                                 | $\leq 12$  | $\leq 10$                     |
| Voltage drop $U_d$ [V]                 | $\leq 2.5$                        | $\leq 1.5$                                       | $\leq 0.5$                    |
| Leakage current [mA]                   | —                                 | $\leq 0.01$                                      | $\leq 0.01$                   |
| Enclosure rating                       | IEC 529 IP67                      |  |                               |
| Temperature range $T_a$ [°C]           | -10 to +70                        |  |                               |
| Cable                                  | 2 wires, $\varnothing 2.8$ mm     | 3 wires, $\varnothing 3$ mm                      | 3 wires, $\varnothing 3$ mm   |
| Cable length                           | 2 m or 0.15 m with M8x1 connector |  |                               |
| Housing material                       | plastic                           |  |                               |
| Integrated protection                  | —                                 | power source reverse polarity, surge suppression |                               |

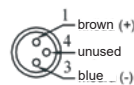
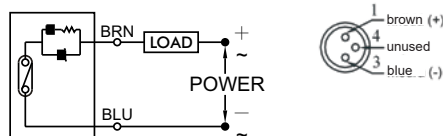
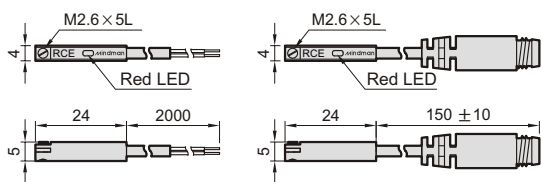
## Order codes

| Type | Switching output | Max. response time [Hz] | Function indicator | Order codes for switch with connection |                                  |
|------|------------------|-------------------------|--------------------|--|----------------------------------|
|      |                  |                         |                    | cable 2 m                              | cable 0.15 m with M8x1 connector |
| RCE  | reed             | 1                       | red LED            | PRCE                                   | PRCE-QD                          |
| RPE  | PNP              | 1                       | red LED            | PRPE                                   | PRPE-QD                          |
| RNE  | NPN              | 1                       | green LED          | PRNE                                   | PRNE-QD                          |

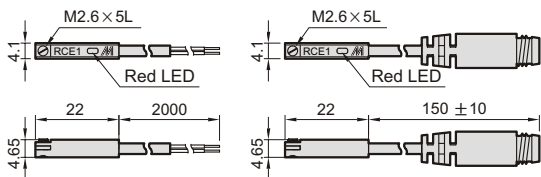


Please read carefully technical information on page 3-9.

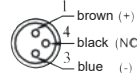
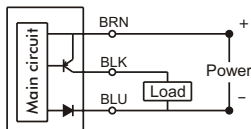
## Dimensions and connection of RCE type



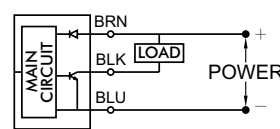
## Dimensions of RPE and RNE type



## Connection of RPE type



## Connection of RNE type



## How to fix switch on cylinder and which series for which cylinder type

| Pneumatic cylinder type   | Suitable switch with direct mounting |
|---|--------------------------------------|
| MCGS, MCGD, MCDA, MCSS, MSBD <sup>1)</sup> , MSBR <sup>2)</sup> , MSBS <sup>3)</sup> , MCHA, MCHB, MCRPMD | ✓ RCE, ✓ RPE, ✓ RNE                  |

- 1) Except piston diameter 50 mm - in this case please contact our technical dept.
- 2) Except piston diameter 20 mm - in this case please contact our technical dept.
- 3) Except piston diameter 20 and 50 mm - in this case please contact our technical dept.

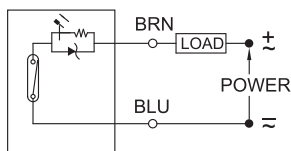


**Warning**

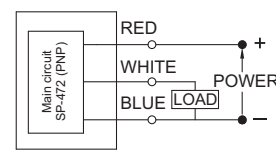
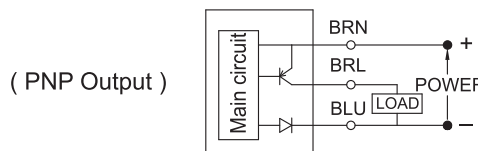
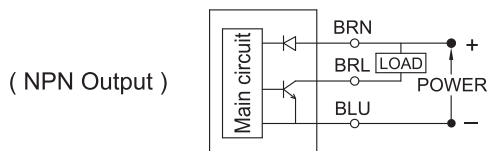
Do not exceed specification, permanent damage to the sensor may occur.

**Rules for using of proximity switches**

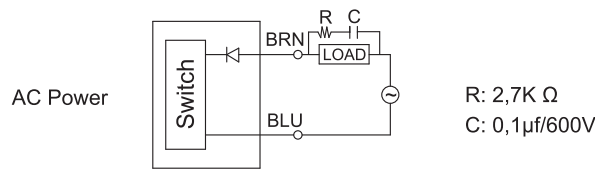
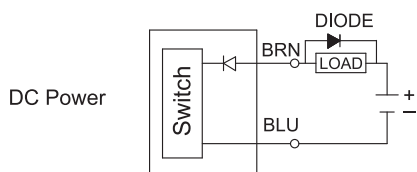
- For reed switch type sensors, polarity must also be observed for the proper functioning of LED. Connect the brown wire in series with load positive (+) and the blue wire to negative (-) of power source. If the polarity is reversed, reed switch remains functional but LED will remain in "OFF" state.



- For solid-state type sensors, polarity must also be observed. Connect brown (red for SP-472 switch) wire to the positive (+) and the blue to the negative (-) of DC power source. The black (white for SP-472 switch) wire must connect to the load only. If the black (white for SP-472 switch) wire is accidentally connected to the power source, permanent damage to the sensor may occur.



- An external protection circuit may be required if the reed switch is used with inductive load. For DC voltage, the diode must be connected, for AC voltage, the RC circuit must be connected as shown below.



- Keep sensors away from stray magnetic field to prevent malfunctions.
- When using reed switch with capacitive load or if the lead wire length exceed 10 meters, an inductor must be installed in series.

