



- Available in cable gland and moulded cable types with or without indicators
- Indicator plugs illuminate to show solenoid operation
- Popular voltage options are available
- Light Emitting Seals show power-on, include built-in surge suppression and reverse polarity protection
- Indicator plugs and Light Emitting Seals have low power consumption



Technical Data

Plugs

Contact Rating:

10 A nominal, 6 A operating

Contact Resistance:

4 mΩ

Voltages:

see table overleaf

Conductor cross-section:

3 x 0,5 mm² moulded cable

Indicator Circuit Current Consumption:

5-10 mA

Protection Class:

IP65 (DIN 40050)

(IP64 for indicator plugs)

Insulation Class:

Group C (VDE 0110)

Materials:

Plug housing - black polyamide with glass fibre

Indicator Plug housing - transparent polyamide

Light Emitting Seals

Voltage Range:

see table overleaf

Power Consumption:

0.25W (DC) and 0.75VA - 1.25VA (AC)

Temperature range:

-25 °C to +50 °C

LED colour:

Green

Material:

Polyurethane

Ordering Information

To order, quote model number:

e.g. V10012-D13 for the 12-24 V a.c or d.c. plug with cable gland for a Form-C type connection.



General Information

DIN 43650 (Form C) - Connector plugs for 15mm coils

| Model No. | Description | Cable Length | Gland Size | Voltage | Features |
|------------|---------------------------------------|--------------|------------|---------------------|-----------|
| V10027-D00 | Plug with cable gland | - | Pg7 | - | - |
| V10012-D13 | Plug with cable gland and indicator | - | Pg7 | 12-24 V a.c. / d.c. | LED / VDR |
| V10012-D18 | Plug with cable gland and indicator | - | Pg7 | 110 V a.c. / d.c. | LED / VDR |
| V10012-D19 | Plug with cable gland and indicator | - | Pg7 | 220 V a.c. / d.c. | LED / VDR |
| V10013-D01 | Plug with moulded cable | 1m | - | - | - |
| V10013-D03 | Plug with moulded cable | 3m | - | - | - |
| V10014-D01 | Plug with moulded cable and indicator | 1m | - | 24 V a.c. / d.c. | LED / VDR |
| V10014-D03 | Plug with moulded cable and indicator | 3m | - | 24 V a.c. / d.c. | LED / VDR |
| V10015-D01 | Plug with moulded cable and indicator | 1m | - | 110 V a.c. / d.c. | LED / VDR |
| V10015-D03 | Plug with moulded cable and indicator | 3m | - | 110 V a.c. / d.c. | LED / VDR |
| V10016-D01 | Plug with moulded cable and indicator | 1m | - | 220 V a.c. / d.c. | LED / VDR |
| V10016-D03 | Plug with moulded cable and indicator | 3m | - | 220 V a.c. / d.c. | LED / VDR |

Used on:

Nugget 40 (V08, V09 & V10 Manifolds & Valve Islands)
Nugget 120 (V14 Manifolds & Valve Islands)

Industrial Standard - Connector plugs for 22mm coils

| Model No. | Description | Cable Length | Gland Size | Voltage | Features |
|-------------|---------------------------------------|--------------|------------|-----------------------|-----------|
| M/P19063 | Plug with cable gland | - | Pg9 | - | - |
| M/P24121/1 | Plug with cable gland and indicator | - | Pg9 | 12-24 V a.c. / d.c. | Lamp |
| M/P24121/2 | Plug with cable gland and indicator | - | Pg9 | 90-130 V a.c. / d.c. | Neon |
| M/P24121/3 | Plug with cable gland and indicator | - | Pg9 | 150-230 V a.c. / d.c. | Neon |
| M/P43313/1 | Plug with moulded cable | 1m | - | - | - |
| M/P43313/3 | Plug with moulded cable | 3m | - | - | - |
| M/P43314/11 | Plug with moulded cable and indicator | 1m | - | 24 V a.c. / d.c. | LED / VDR |
| M/P43314/13 | Plug with moulded cable and indicator | 3m | - | 24 V a.c. / d.c. | LED / VDR |
| M/P43314/21 | Plug with moulded cable and indicator | 1m | - | 110 V a.c. / d.c. | LED / VDR |
| M/P43314/23 | Plug with moulded cable and indicator | 3m | - | 110 V a.c. / d.c. | LED / VDR |
| M/P43314/31 | Plug with moulded cable and indicator | 1m | - | 220 V a.c. / d.c. | LED / VDR |
| M/P43314/33 | Plug with moulded cable and indicator | 3m | - | 220 V a.c. / d.c. | LED / VDR |

Used on:

M/7700/M, M/7800/M
ISO*Star, Midi*Star
M/48, M49
Super X,
M/20000
M/1700

DIN 43650 (Form A) - Connector plugs for 30/32mm coils

| Model No. | Description | Cable Length | Gland Size | Voltage | Features |
|-------------|---------------------------------------|--------------|------------|-----------------------|-----------|
| M/P15737 | Plug with cable gland | - | Pg11 | - | - |
| M/P24120/1 | Plug with cable gland and indicator | - | Pg11 | 12-48 V a.c. / d.c. | Lamp |
| M/P24120/2 | Plug with cable gland and indicator | - | Pg11 | 90-130 V a.c. / d.c. | Neon |
| M/P24120/3 | Plug with cable gland and indicator | - | Pg11 | 150-230 V a.c. / d.c. | Neon |
| M/P24120/4 | Plug with cable gland and indicator | - | Pg11 | 20-24 V a.c. / d.c. | LED |
| M/P43315/1 | Plug with moulded cable | 1m | - | - | - |
| M/P43315/3 | Plug with moulded cable | 3m | - | - | - |
| M/P43316/11 | Plug with moulded cable and indicator | 1m | - | 24 V a.c. / d.c. | LED / VDR |
| M/P43316/13 | Plug with moulded cable and indicator | 3m | - | 24 V a.c. / d.c. | LED / VDR |
| M/P43316/21 | Plug with moulded cable and indicator | 1m | - | 110 V a.c. / d.c. | LED / VDR |
| M/P43316/23 | Plug with moulded cable and indicator | 3m | - | 110 V a.c. / d.c. | LED / VDR |
| M/P43316/31 | Plug with moulded cable and indicator | 1m | - | 220 V a.c. / d.c. | LED / VDR |
| M/P43316/33 | Plug with moulded cable and indicator | 3m | - | 220 V a.c. / d.c. | LED / VDR |

Used on:

Excel (V03, V04 & V05)
Pascaflex
M/7300
M/7400
M/7600

Light Emitting Seals

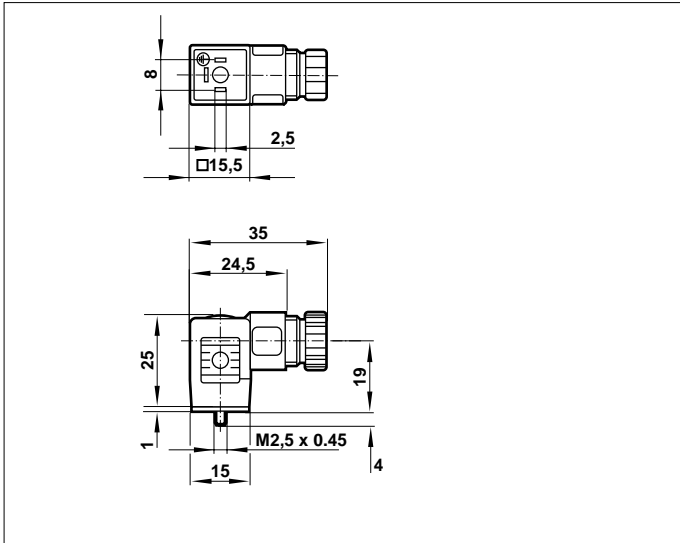
| Model No. | Plug / Solenoid size | Voltage | Form | Power Consumption |
|------------|----------------------|-----------------------|------|-------------------|
| V10037-E13 | 15 mm | 12-24 V d.c. | C | 0.25W at 24V |
| V10037-E18 | 15 mm | 110-120 V a.c. | C | 0.75VA |
| V10037-E19 | 15 mm | 220-240 V a.c. | C | 1.0VA |
| M/P40859 | 22 mm | 12-24 V a.c. / d.c. | IND | 0.25W at 24V |
| M/P40886 | 22 mm | 110-120 V a.c. / d.c. | IND | 1.0VA |
| M/P40860 | 22 mm | 220-240 V a.c. / d.c. | IND | 1.25VA |
| M/P40861 | 30/32 mm | 12-24 V a.c. / d.c. | A | 0.25W at 24V |
| M/P40880 | 30/32 mm | 110-120 V a.c. / d.c. | A | 1.0VA |
| M/P40862 | 30/32 mm | 220-240 V a.c. / d.c. | A | 1.25VA |

* Reduced light intensity at 12 V
a.c. models suitable for use at any frequency

ALL MODELS FEATURE GREEN LED.



Plugs for 15mm coils

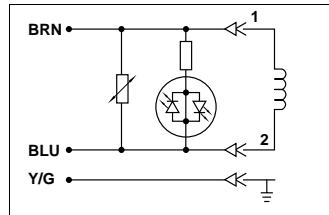


with cable gland
V10027-D00

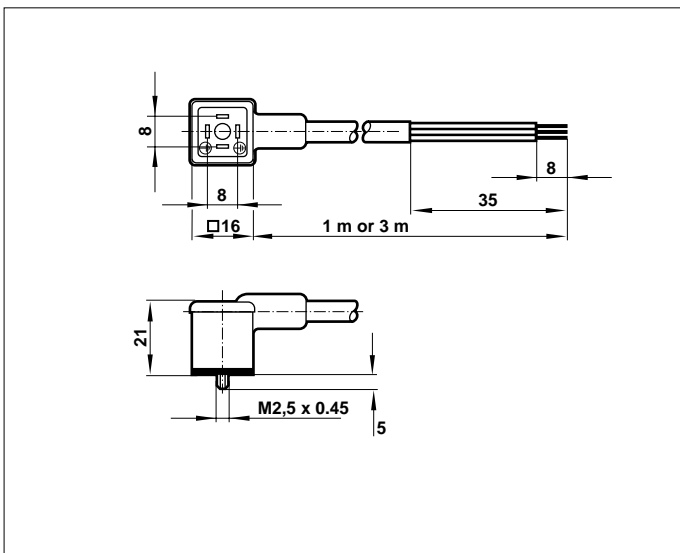
Type: 3 pin plug with 8 mm centres

with cable gland and indicator
V10012-D13 (12 - 24 V a.c. / d.c.)
V10012-D18 (110 V a.c. / d.c.)
V10012-D19 (220 V a.c. / d.c.)

Type: 3 pin plug with 8 mm centres, red LED indicator and VDR



Circuit
Bipolar LED and VDR to protect supply and switch (the energy in the coil is limited by the VDR).



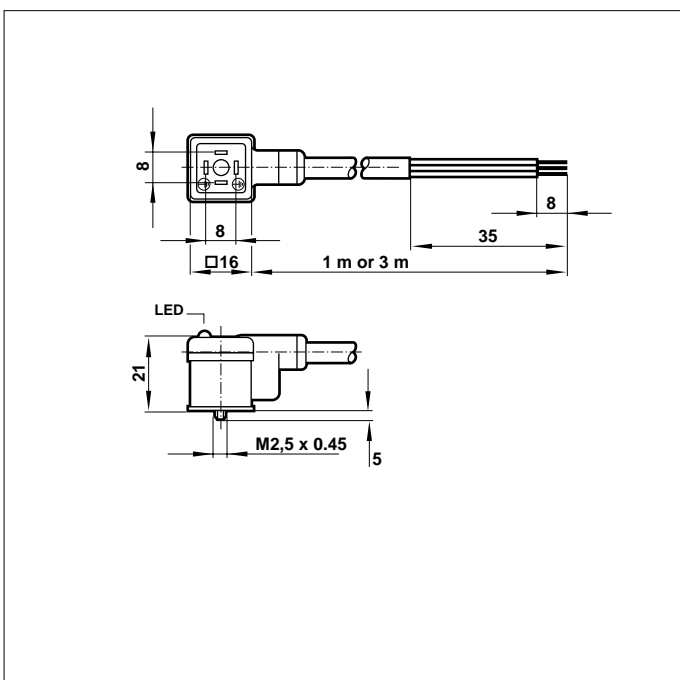
with moulded cable

V10013-D01 1 m cable
V10013-D03 3 m cable

Type: 3 pin plug with 8 mm centres

Polarity: Brown +/- + or LIVE
Blue -/- - or NEUTRAL
Yellow-green earth

Cable size: 3 x 0,5 mm²



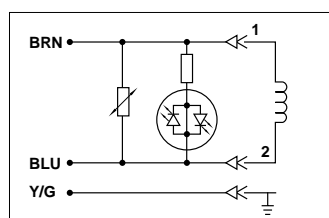
with moulded cable and indicator

V10014-D01 1 m cable (12 - 24 V a.c. / d.c.)
V10014-D03 3 m cable (12 - 24 V a.c. / d.c.)
V10015-D01 1 m cable (110 V a.c. / d.c.)
V10015-D03 3 m cable (110 V a.c. / d.c.)
V10016-D01 1 m cable (220 V a.c. / d.c.)
V10016-D03 3 m cable (220 V a.c. / d.c.)

Type: 3 pin plug with 8 mm centres, red LED indicators and VDR

Polarity: Brown +/- + or LIVE
Blue -/- - or NEUTRAL
Yellow-green earth

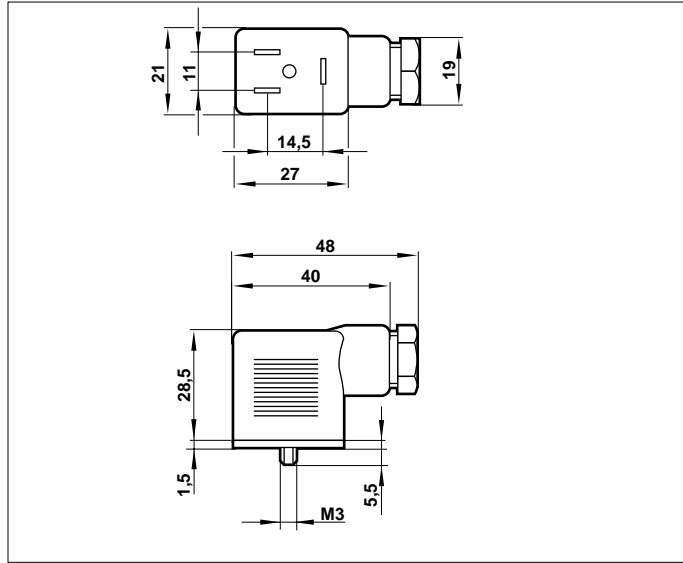
Cable size: 3 x 0,5 mm²



Circuit
Bipolar LED and VDR to protect supply and switch (the energy in the coil is limited by the VDR).



Plugs for 22mm coils



with cable gland

M/P19063

Type: 3 pin plug

with cable gland and indicator

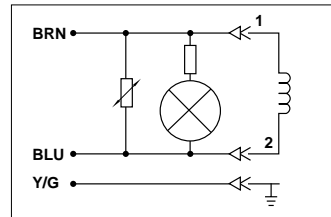
M/P24121/1 Lamp (12 - 24 V a.c. / d.c.)

M/P24121/2 Neon* (90 - 130 V a.c. / d.c.)

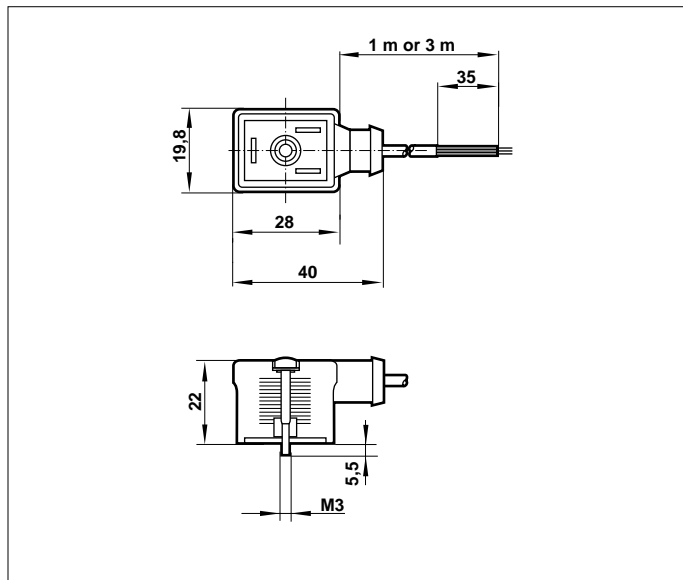
M/P24121/3 Neon* (150 - 220 V a.c. / d.c.)

Type: 3 pin plug with indicator and VDR

*(see page 6 for circuit drawings)



Circuit



with moulded cable

M/P43313/1 1 m cable

M/P43313/3 3 m cable

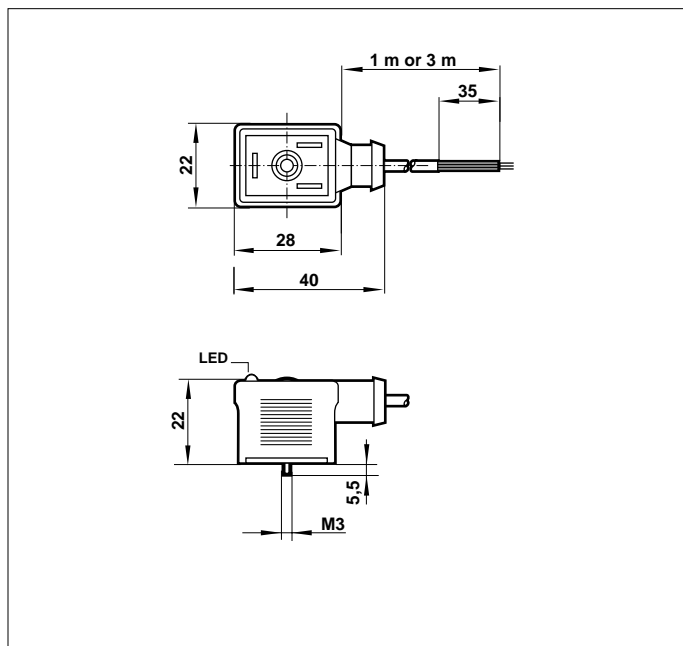
Type: 3 pin plug

Polarity: Brown +/- + or LIVE

Blue -/- - or NEUTRAL

Yellow-green earth

Cable size: 3 x 0,5 mm²



with moulded cable and indicator

M/P43314/11 1 m cable (24 V a.c. / d.c.)

M/P43314/13 3 m cable (24 V a.c. / d.c.)

M/P43314/21 1 m cable (110 V a.c. / d.c.)

M/P43314/23 3 m cable (110 V a.c. / d.c.)

M/P43314/31 1 m cable (220 V a.c. / d.c.)

M/P43314/33 3 m cable (220 V a.c. / d.c.)

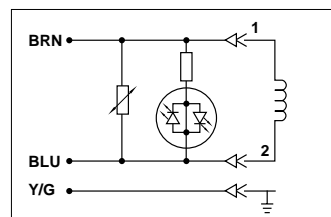
Type: 3 pin plug with red LED indicators and VDR

Polarity: Brown +/- + or LIVE

Blue -/- - or NEUTRAL

Yellow-green earth

Cable size: 3 x 0,5 mm²

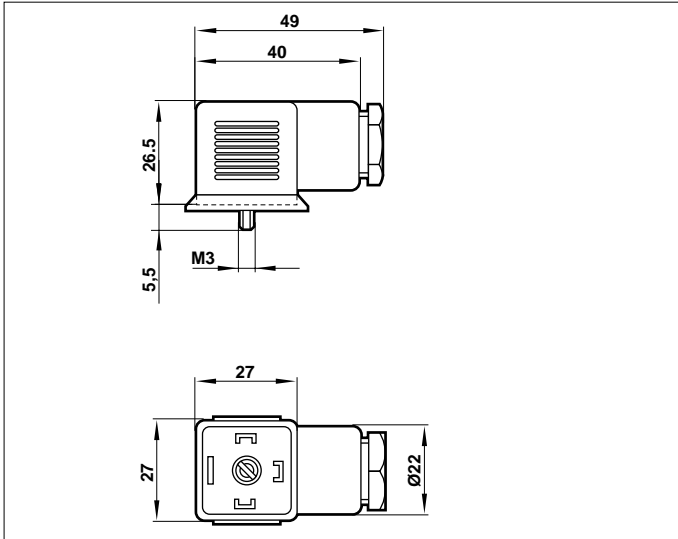


Circuit

Bipolar LED and VDR to protect supply and switch (the energy in the coil is limited by the VDR).



Plugs for 32 mm coils



with cable gland

M/P15737

Type: 3 pin plug

with cable gland and indicator

M/P24120/1 Lamp* (12 - 48 V a.c. / d.c.)

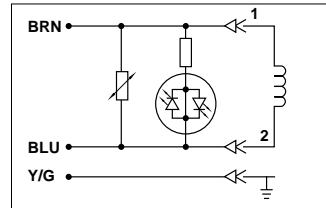
M/P24120/2 Neon* (90 - 130 V a.c. / d.c.)

M/P24120/3 Neon* (150 - 230 V a.c. / d.c.)

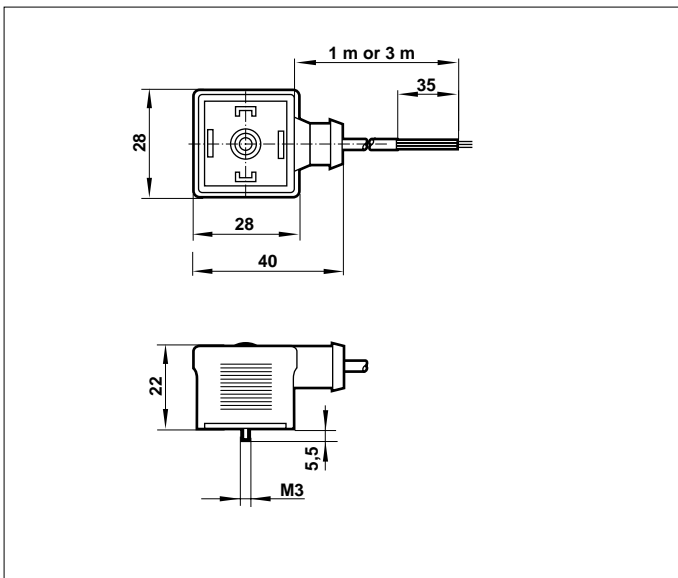
M/P24120/4 LED (20 - 24 V a.c. / d.c.)

Type: 3 pin plug with indicator and VDR

* (see page 6 for circuit drawings)



Circuit



with moulded cable

M/P43315/1 1 m cable

M/P43315/3 3 m cable

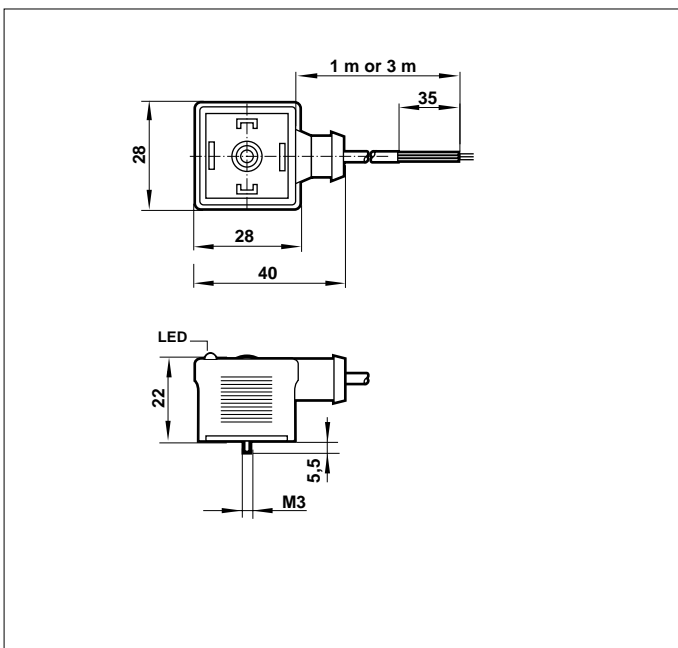
Type: 3 pin plug

Polarity: Brown +/- + or LIVE

Blue -/- - or NEUTRAL

Yellow-green earth

Cable size: 3 x 0,5 mm²



with moulded cable and indicator

M/P43316/11 1 m cable (24 V a.c. / d.c.)

M/P43316/13 3 m cable (24 V a.c. / d.c.)

M/P43316/21 1 m cable (110 V a.c. / d.c.)

M/P43316/23 3 m cable (110 V a.c. / d.c.)

M/P43316/31 1 m cable (220 V a.c. / d.c.)

M/P43316/33 3 m cable (220 V a.c. / d.c.)

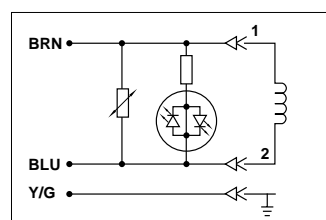
Type: 3 pin plug with red LED indicators and VDR

Polarity: Brown +/- + or LIVE

Blue -/- - or NEUTRAL

Yellow-green earth

Cable size: 3 x 0,5 mm²

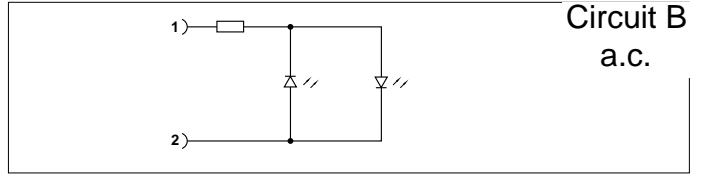
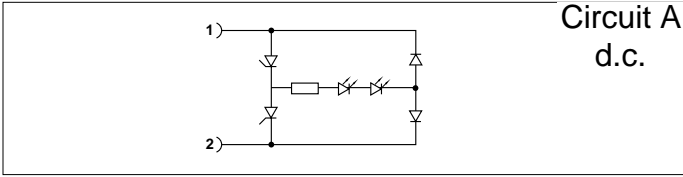


Circuit

Bipolar LED and VDR to protect supply and switch (the energy in the coil is limited by the VDR).

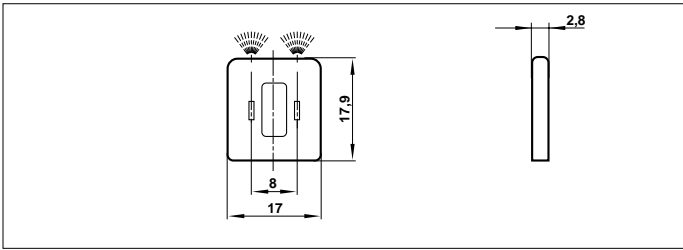


Light Emitting Seals

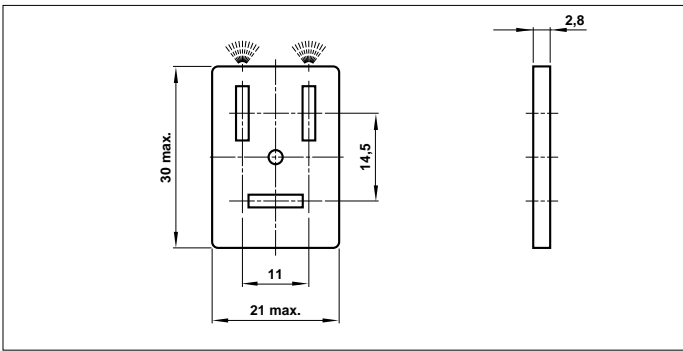


Circuit

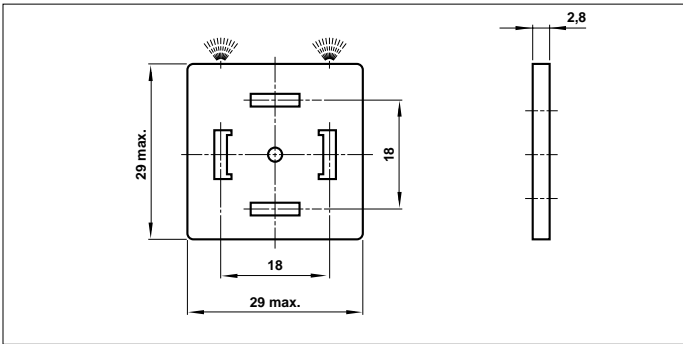
Incorporates LED and reverse polarity protection. Indicates when the power is on.



Suitable for 15 mm solenoids (Form C)
V10037-E13 Circuit A (12 - 24 V d.c.)
V10037-E18 Circuit B (110 - 120 V a.c.)
V10037-E19 Circuit B (220 - 240 V a.c.)

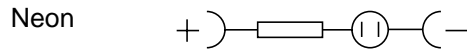
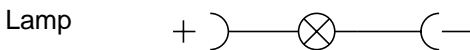


Suitable for 22 mm solenoids (Industrial)
M/P40859 Circuit A (12 - 24 V dc)
M/P40860 Circuit B (220 - 240 Vac)
M/P40886 Circuit B (110 - 120 Vac)



Suitable for 32 mm solenoids (Form A)
M/P40861 Circuit A (12 - 24 V dc)
M/P40862 Circuit B (220 - 240 Vac)
M/P40880 Circuit B (110 - 120 Vac)

Circuit Drawings



Warning

These products are intended for use in industrial compressed air systems only. Do not use these products where pressures and temperatures can exceed those listed under 'Technical Data'.

Before using these products with fluids other than those specified, for non-industrial applications, life-support systems, or other applications not within published specifications, consult NORGREN.

Through misuse, age, or malfunction, components used in fluid power systems can fail in various modes. The system designer is warned to consider the failure modes of all component parts used in fluid power systems and to provide adequate safeguards to prevent personal injury or damage to equipment in the event of such failure.

System designers must provide a warning to end users in the system instructional manual if protection against a failure mode cannot be adequately provided.

System designers and end users are cautioned to review specific warnings found in instruction sheets packed and shipped with these products.