

- Indicator terminal boxes give positive indication of solenoid operation
- Suppression kits protect equipment from induced voltage spikes

Technical Data - Indicator Terminal Boxes

Voltage Range:

- 12 - 24 V a.c./d.c. M/P24121/1*
- 12 - 48 V a.c./d.c. M/P24120/1*
- 90 - 130 V d.c. M/P24120/2, M/P24121/2
- 80 - 130 V a.c. M/P24120/2, M/P24121/2
- 150 - 230 V a.c. M/P24120/3, M/P24121/3
- 20 - 24 V a.c./d.c. M/P24120/4

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

Typical Indicator Circuit Current Consumption:

- 35 mA M/P24120/1, M/P24121/1
- 15 mA M/P24120/2, M/P24121/2, M/P24120/3, M/P24121/3
- 20 mA M/P24120/4

Technical Data - Suppression Kits

Voltage:

- 24 V d.c. 50 1611 01 024 Specific
- 110 V a.c. 50 1611 51 110 Specific
- 240 V a.c. 50 1611 51 240 Specific
- 24 V d.c. 50 1612 01 024 Specific
- 110 V a.c. 50 1612 51 110 Specific
- 240 V a.c. 50 1612 51 240 Specific
- 220 V d.c. 50 1611 00 024 Maximum
- 240 V a.c. 50 1611 50 240 Maximum
- 220 V d.c. 50 1612 00 024 Maximum
- 240 V a.c. 50 1612 50 240 Maximum

Suppressed Voltage Peak:

- 1 V 50 1611 01 024, 50 1611 00 024, 50 1612 01 024, 50 1612 00 024
- 300 V 50 1611 51 110, 50 1611 51 240, 50 1611 50 240, 50 1612 51 110, 50 1612 51 240, 50 1612 50 240

Response Times:

- 200 ms 50 1611 01 024, 50 1611 00 024, 50 1612 01 024, 50 1612 00 024
- 20 ms 50 1611 51 110, 50 1611 51 240, 50 1611 50 240, 50 1612 51 110, 50 1612 51 240, 50 1612 50 240

Operating Temperature:

0°C to +70°C

Protection Classification:

IP64

Materials

Clear plastic housing on indicator terminal boxes, black plastic body on suppression kits.

Ordering Information

To order, quote reference from table overleaf, e.g. M/P24121/3 for the 150 - 230 V a.c. indicator terminal box to fit a miniature, 22 mm solenoid.





General Information - Indicator Terminal Boxes

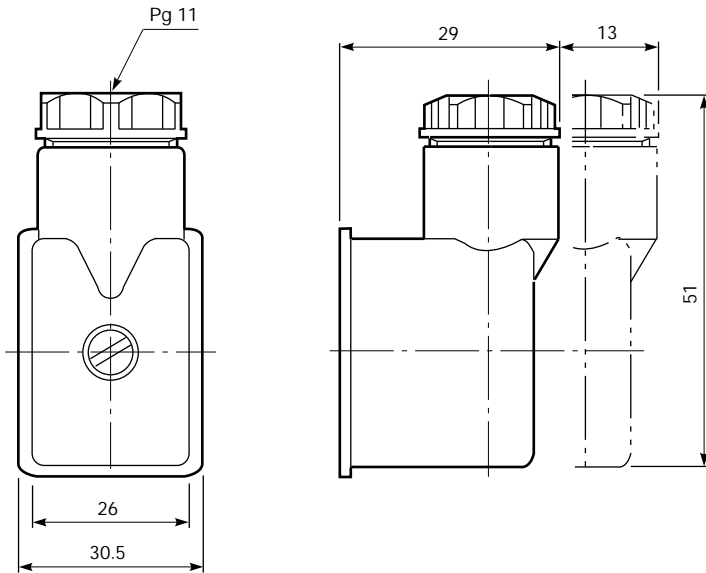
Reference	Solenoid Type
M/P24120/1	32 mm Standard
M/P24120/2	32 mm Standard
M/P24120/3	32 mm Standard
M/P24120/4	32 mm Standard
M/P24121/1	22 mm Miniature
M/P24121/2	22 mm Miniature
M/P24121/3	22 mm Miniature

General Information - Suppression Kits

Reference	Solenoid Type	Polarity	Features
50 1611 00 024	22 mm Miniature	As label	-
50 1611 01 024	22 mm Miniature	As label	Indicating lamp
50 1611 51 240	22 mm Miniature	Reversible	Indicating lamp
50 1611 50 240	22 mm Miniature	Reversible	-
50 1611 51 110	22 mm Miniature	Reversible	Indicating lamp
50 1612 00 024	32 mm Standard	As label	-
50 1612 01 024	32 mm Standard	As label	Indicating lamp
50 1612 51 240	32 mm Standard	Reversible	Indicating lamp
50 1612 50 240	32 mm Standard	Reversible	-
50 1612 51 110	32 mm Standard	Reversible	Indicating lamp



Indicator Terminal Boxes

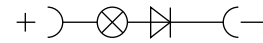


Reference: **M/P24120/1**
M/P24120/2
M/P24120/3
M/P24120/4

Suitability: 32 mm standard solenoids

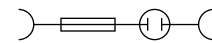
Lamp Arrangement:

M/P24120/1



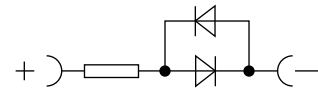
1 Blocking diode, 1 Filament lamp

M/P24120/2,
M/P24120/3



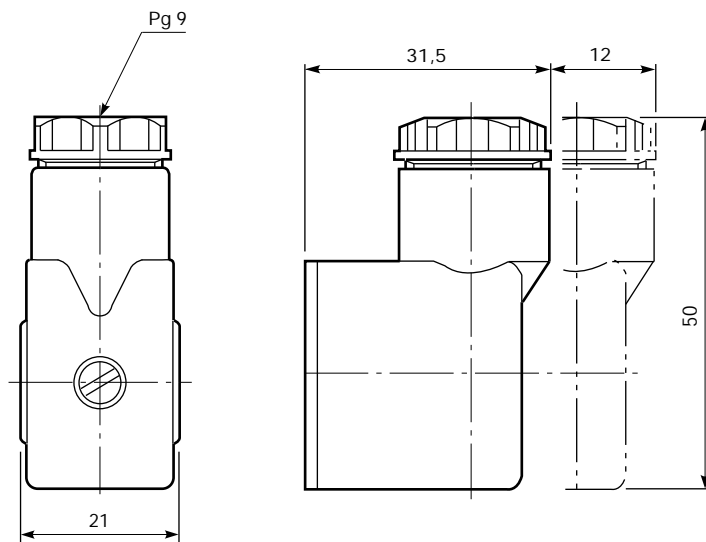
1 Glow lamp, 1 Resistor

M/P24120/4



1 Fluorescent diode, 1 Resistor, 1 Diode

Indicator Terminal Boxes

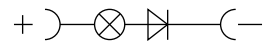


Reference: **M/P24121/1**
M/P24121/2
M/P24121/3

Suitability: 22 mm miniature solenoids

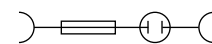
Lamp Arrangement:

M/P24121/1



1 Blocking diode, 1 Filament lamp

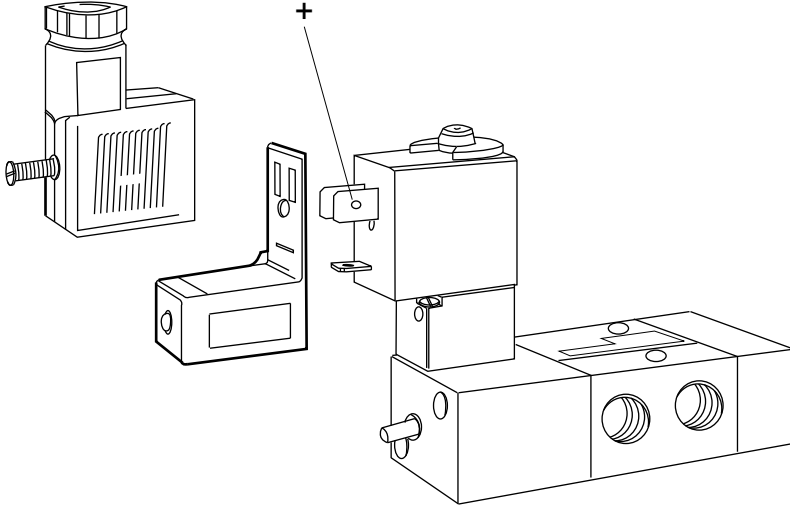
M/P24121/2,
M/P24121/3



1 Glow lamp, 1 Resistor



Suppression Kits



Reference: **50 1611 00 024**
50 1611 01 024
50 1611 51 240
50 1611 50 240
50 1611 51 110

Suitability: 22 mm miniature solenoids

Important Note: The plug must be wired so that the right hand terminal, as viewed looking on to the terminals, is positive when fitting the suppression module for d.c.

Reference: **50 1612 01 024**
50 1612 51 240
50 1612 50 240
50 1612 51 110

Suitability: 32 mm standard solenoids

Important Note: The plug must be wired so that the right hand terminal, as viewed looking on to the terminals, is positive when fitting the suppression module for d.c.

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.