



Reyrolle
Protection
Devices

7PG13 – MR

Measuring Relay

Answers for energy

SIEMENS

7PG13 – MR

Measuring Relay



Description

Type MR relays use the same electro-mechanical assemblies as type AR family of relays with a specific operating point. Type MR relays have a consistent positive action, a long service life and comply with BS142.

Model range a.c. current

MR101 Single element, no flag, self reset contacts
MR111 Single element, hand reset flag, self reset contacts
MR102 Single element, no flag, self reset contacts
MR112 Single element, hand reset flag, self reset contacts

Application

Type MR relays are intended for use where a precise level of a.c. current is required to operate the relay. Type MR relays are robust and reliable in operation, suitable for instantaneous overcurrent or earth fault protection and/or in conjunction with other protection systems or plant.

Easy to test and maintain
Fixed or plug bridge settings

Technical information

Fixed settings (MR101, MR111) Is

Fixed setting relays are factory-set to a specific operating point

(Where a range is shown this indicates the relay coil operating range.)

0.1A 0.2A

0.25A to 0.33A 0.4A to 0.5A

0.8A to 1.0A 2A to 2.5A

5A

Variable setting (MR102 & MR112) Is

Adjustable using a 7 step plug bridge.

0.1A to 0.4A

0.5A to 2A

Burden – Typically 3VA at the setting.

Thermal withstand (continuous) 2 x Is

Accuracy Is $\pm 5\%$

Contact arrangements

MR101 and MR111 2NO, 2NO + 2NC or 4NO

MR102 & MR112 2NO, 2NO + 2NC or 4NO

Contact ratings

Make and carry continuously:

1250VAa.c. or 1250Wd.c. with limits of 660V and 5A

Make and carry for 3 seconds:

7500VAa.c. with limits of 660V and 30A

Break:

1250VA a.c. or 100W resistive d.c. or 50W inductive (L/R = 0.04) d.c. with limits of 250V and 5A

Indication MR111 and MR112

The types MR111 and MR112 has a mechanically operated hand reset flag.

Environmental

Temperature	IEC 68-2-1 & 2
Operating	-10°C to +55°C
Storage	-25°C to +70°C
Humidity	IEC 68-2-3
56 days at 95% RH and +40°C	
Vibration	IEC 255-21-2

The relays comply with the requirements of BS142, section 1.5.11 1989, class 1
Shock and bump IEC 255-21-2

Relays meet the requirements with respect to shock and bump testing for class 1 severity.

Operational/Mechanical Life

Relays will withstand in excess of 10,000 operations

Insulation: IEC 255-5

Relays will withstand:

5kV 1.2/50µs 0.5j between all terminals and case earth and between adjacent terminals.

2kV rms 50HZ for 1 minute between all case terminals connected together and the case earth and between independent circuits.

1kV rms 50HZ for 1 minute across normally open contacts.

Ordering information – 7PG13MR

Product description	Variants	Order No.
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Measuring relay (MR101, MR111)

Measuring relay for a.c. current, operation fixed setting.

Number of elements

Single element

Type of flag

No flag

Hand reset flag

Setting type

Fixed

Contact arrangement – NO

0 NO

1 NO

2 NO

3 NO

4 NO

Contact arrangement NC

0 NC

1 NC

2 NC

3 NC

4 NC

Number of contacts ¹⁾

Two

Four

Contact type

NO (Standard) / NC (Standard)

Housing size

Case size E2 (4U high)

Current setting

0.1 A

0.2 A

0.25 A to 0.33 A

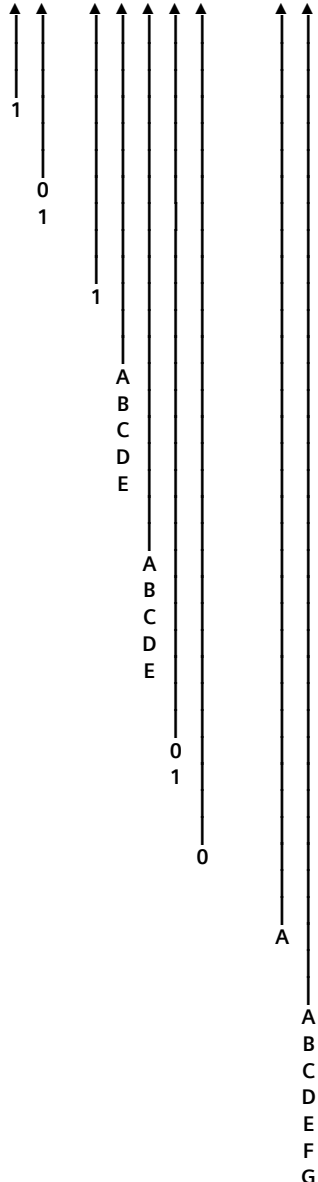
0.4 A to 0.5 A

0.8 A to 1.0 A

2.0 A to 2.5 A

5.0 A

7 P G 1 3 □ □ - □ □ □ □ □ □ - 0 □ □ 0



¹⁾ Number of contacts must match selected contact arrangement

Ordering information – 7PG13MR

Product description	Variants	Order No.
<p>Measuring relay (MR102, MR112)</p> <p>Measuring relay for a.c. current, operation variable setting.</p>	<p><u>Number of elements</u> Single element</p> <p><u>Type of flag</u> No flag Hand reset flag</p> <p><u>Setting type</u> Variable with plug bridge</p> <p><u>Contact arrangement – NO</u> 2 NO 4 NO</p> <p><u>Contact arrangement NC</u> 0 NC 2 NC</p> <p><u>Number of contacts</u>¹⁾ Two Four</p> <p><u>Contact type</u> NO (Standard) / NC (Standard)</p> <p><u>Housing size</u> Case size E2 (4U high)</p> <p><u>Current setting</u> 0.1 A to 0.4 A (7 steps) 0.5 A to 2.0 A (7 steps) 1.0 A to 4.0 A (7 steps)</p>	<p>7 P G 1 3 □ □ - □ □ □ □ □ - 0 □ □ 0</p> <p>↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑</p> <p>1 0 1 2 C E A C 0 1 0 A H J K</p>

1) Number of contacts must match selected contact arrangement

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