



Reyrolle  
Protection  
Devices

## 7PG15 - TR Relays

High Speed Tripping

Answers for energy

# 7PG15 - TR Relays

High Speed Tripping



## Description

Type TR relays are a range of multi-contact attracted armature relays designed to both IEC 255-5 and to BS142. A wide range of models is available to meet the requirements of the electric supply industry.

High speed, positive action  
Can be supplied in modular and drawout type case  
Robust design for a long, reliable service life

TR1	Low burden to ESI 48-4 EB1 & NGTS 3.6.15, ESI 1.
TR2	High burden to ESI 48-4 EB2 & NGTS 3.6.15, ESI 2
TR312	NGC (CEGB) P15. (low burden trip relay)
TR431	NGC (CEGB) TDM 5/11. (switching relay)
TR512	NGC (CEGB) P11 1978. (unstabilising relay)

### Low burden, TR1 series

Type TR1 relays are suitable for application for tripping and auxiliary duties where immunity to capacitance discharge is not required. These relays are not intended for use with current operated series follower relays.

### High burden, TR2 series

High burden relays with immunity to capacitance discharge currents. They are also suitable for certain applications where they are remote from the initiation signal.

A high burden also permits reliable operation of current operated series repeat relays. TR relays can be provided with an instantaneous or time-delayed cut-off.

### Low burden relay, TR312

Designed to meet the requirements of NGC specification P15, this is an electrically reset relay (no flag indicator) with additional terminals in the economy circuit to enable a direct connection to the dc supply.

This arrangement allows a reduction in the break duty of the initiating contact.

### Switching Relay, TR431

Designed to meet the requirements of NGC TDM 5/11, this is an electrically reset relay with a flag indicator which follows the contact operation. These relays are intended to switch protection and auto reclose equipment in and out of service when controlled over pilot wires from a remote point. They are intended to operate from a remote 50V d.c. battery with a pilot loop resistance of up to 200 ohms.

### Protection unstabilising relay, TR512

Designed to meet the requirements of NGC specification P11, this is a self reset relay without a flag indicator.

### Special purpose relays, TR9 series

This designation identifies TR relays designed to meet a special purpose e.g. TR901 is a high burden repeat relay, a type TR231 with a 2 position flag indicator used as a plant follower relay for circuit breakers and disconnectors.

Relay Type	Number of Contacts	Contact Reset Arrangement	Operating Coil Cut-off	Specification	Burden Level	Modular Case Size
TR112	7 or 11	Self	Economy	EB1	low	E4
TR121	7 or 11	Hand	Instantaneous	EB1	Low	E2
TR131	6 or 10	Electrical	Instantaneous	EB1	Low	E2
TR141	6 or 10	Hand & electrical	Instantaneous	EB1	Low	E2
TR212	6 or 10	Self	Economy	EB2	High	E2 or E4
TR214	5 or 10	Self	Economy 2s delayed reset	EB2	High	E4
TR221	7 or 11	Hand	Instantaneous	EB2	High	E2
TR223	7 or 11	Hand	40/60ms delay	EB2	High	E4
TR231	6 or 10	Electrical	Instantaneous	EB2	High	E2
TR233	6 or 10	Electrical	40/60ms delay	EB2	High	E4
TR241	6 or 10	Hand & electrical	Instantaneous	EB2	High	E2
TR243	6 or 10	Hand & electrical	40/60ms delay	EB2	High	E4
TR312	5	Self	Economy	NGC P15	Low	E4
TR431	7	Electrical	Instantaneous	NGC TDM.5/11	Low	E4
TR512	6	Self	Economy	NGC P11	High	E4
TR901	10	electrical	Instantaneous	EB2	High	E2

Table 1 Standard Relays

## Technical Information

TR1 and TR2 relays

Operating time 10ms at rated voltage  
Rated voltage Vn 24V, 30V, 48V, 125V, 240V d.c.  
Note: 24V and 240V ratings are not part of ESI 48-4

Operating range 50% to 120% of rated voltage  
Operating coils of self-reset and economy cut-off relays are rated at 120% of rated voltage. All other operate and reset coils are short time rated well in excess of the operating time of their cut-off contacts. Self-reset relays will reset at not less than 5% rated voltage.

### Nominal burdens

Rated voltage V d.c.	BURDEN (W)	
	TR1--	TR2--
30	43	43
48	46	52
125	47	127
Reset coil	50	50

Relays with economy circuits reduce to approximately 7W after operation.

### Contacts

Ratings

Make and carry continuously:  
1250VAa.c. or 1250Wd.c. within limits of 660V and 5A

Make and carry for 3 seconds:  
7500VAa.c. or 7500Wd.c. within limits of 660V and 30A

Break:  
1250VAa.c. or 100W (resistive) d.c. or 50W (inductive) d.c. within limits of 250V and 5A

Indication:

TR1 and TR2 relays have a hand reset mechanical flag indicator, TR4 and TR9 relays have a self reset flag indicator.

## Environmental

Temperature

IEC68-2-1/2 and BS2011 (1977)

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 255-21-1 Class I.

Shock and bump

IEC 255-21-2 and BS142, 1.5.2 (1989)

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, within the maximum contact loading specified.

### Insulation

Relays will withstand:

- 5kV 1.2/50µs waveform as IEC 255-4
- 2kV rms 50Hz for 1minute (2.5kV for 1s) between all terminals and earth
- 1kV rms 50Hz for 1 minute across normally open contacts to IEC 255-5 and BS142

# Ordering Information – 7PG15TR

Product description	Variants	Order No.
<b>Tripping relay (TR112)</b>		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ □ - □ □ □ 0
Self reset low burden tripping Relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR1-- : low burden, EB1	1
	<u>Contact operation</u> Self reset contacts	1
	<u>Operating coil cut-off</u> Economy	2
	<u>Contact arrangement – NO</u> 1 NO 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO 11 NO	B C D E F G H J K L M
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC 9 NC	A B C D E F G H J K
	<u>Number of contacts <sup>1)</sup></u> Seven Eleven	4 7
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1
	<u>Housing size</u> Case size E4 (4U high)	C

(Continued on following page)

<sup>1)</sup> Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
<b>Tripping relay (TR112)</b>	<u>Voltage rating</u> 24V DC 30V DC 50V DC 60V DC 125V DC 240V DC	7 P G 1 5 □ □ - □ □ □ □ - □ □ □ 0 ↑ B C D E F H

1) Number of contacts must match selected contact arrangement

# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR121)</b>		<b>7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 0</b>
Hand reset low burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR – tripping</u> TR1-- : low burden, EB1	1
	<u>Contact operation</u> Hand reset contacts	2
	<u>Operating coil cut-off</u> Instantaneous	1
	<u>Contact arrangement – NO</u> 1 NO 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO 11 NO	B C D E F G H J K L M
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC 9 NC	A B C D E F G H J K
	<u>Number of contacts <sup>1)</sup></u> Seven Eleven	4 7
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1
	<u>Housing size</u> Case size E2 (4U high)	A

(Continued on following page)

<sup>1)</sup> Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
<b>Tripping relay (TR121)</b>		7 P G 1 5 □ □ - □ □ □ □ □ - □ □ □ 0
	<u>Voltage rating</u>	
	24V DC	B
	30V DC	C
	50V DC	D
	60V DC	E
	125V DC	F
	240V DC	H

1) Number of contacts must match selected contact arrangement



# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR131)</b>		7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 0
Electrical reset low burden tripping relay.		
<u>TR - tripping</u> TR1-- : low burden, EB1		↑ 1
<u>Contact operation</u> Electrical reset contacts		↑ 3
<u>Operating coil cut-off</u> Instantaneous		↑ 1
<u>Contact arrangement – NO</u> 1 NO 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO		↑ B C D E F G H J K L
<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC		↑ A B C D E F G H J
<u>Number of contacts</u> <sup>1)</sup> Six Ten		↑ 3 6
<u>Contact type</u> NO (Standard) / NC (Standard)		↑ 0
<u>Type of flag</u> Hand reset flag		↑ 1

(Continued on following page)

<sup>1)</sup> Number of contacts must match selected contact arrangement

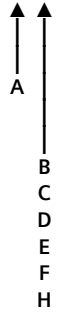
Product description	Variants	Order No.
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Tripping relay (TR131)

7 P G 1 5 □ □ - □ □ □ □ □ - □ □ □ 0

Housing size  
Case size E2 (4U high)

Voltage rating  
24V DC  
30V DC  
50V DC  
60V DC  
125V DC  
240V DC



1) Number of contacts must match selected contact arrangement

# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR141)</b>		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ □ - □ □ □ <b>0</b>
Hand and electrical reset low burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR1-- : low burden, EB1	1
	<u>Contact operation</u> Hand and electrical reset contacts	4
	<u>Operating coil cut-off</u> Instantaneous	1
	<u>Contact arrangement – NO</u> 1 NO 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO	B C D E F G H J K L
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	A B C D E F G H J
	<u>Number of contacts <sup>1)</sup></u> Six Ten	3 6
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1
	<u>Housing size</u> Case size E2 (4U high)	A

(Continued on following page)

<sup>1)</sup> Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
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Tripping relay (TR141)

7 P G 1 5 □ □ - □ □ □ □ □ - □ □ □ 0

Voltage rating

- 24V DC
- 30V DC
- 50V DC
- 60V DC
- 125V DC
- 240V DC

↑  
B  
C  
D  
E  
F  
H

1) Number of contacts must match selected contact arrangement

# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<p><b>Tripping relay (TR212, TR214)</b> Self reset high burden tripping relay.</p> <p><u>TR - tripping</u> TR2-- : high burden, EB2</p> <p><u>Contact operation</u> Self reset contacts</p> <p><u>Operating coil cut-off</u> Economy Economy and 2 second delay on reset</p> <p><u>Contact arrangement – NO</u> 0 NO 1 NO 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO</p> <p><u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC</p> <p><u>Number of contacts <sup>1)</sup></u> Six Ten</p> <p><u>Contact type</u> NO (Standard) / NC (Standard)</p>	<p>7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 0</p> <p>↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑</p> <p>2 1</p> <p>2 4 C</p> <p>A B C D E F G H J K L</p> <p>A B C D E F G H J</p> <p>3 6</p> <p>0</p>	

1) Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
<b>Tripping relay (TR212, TR214)</b>  <u>Type of flag</u> Hand reset flag  <u>Housing size</u> Case size E2 (4U high) Case size E4 (4U high)  <u>Voltage rating</u> 24V DC 30V DC 50V DC 125V DC 240V DC Contact type NO (Standard) / NC (Standard)		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ - □ □ □ <b>0</b> <div style="display: flex; justify-content: space-around; align-items: center;"> <div style="text-align: center;">             ↑ 1           </div> <div style="text-align: center;">             ↑ A C           </div> <div style="text-align: center;">             ↑ B C D F H           </div> </div>

1) Number of contacts must match selected contact arrangement

# Ordering Information - 7PG15 TR

Product Description	Variants	Order No.
<b>Tripping relay (TR221)</b>		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ □ - □ □ □ 0
Hand reset high burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR2-- : high burden, EB2	2 2
	<u>Contact operation</u> Hand reset contacts	2
	<u>Operating coil cut-off</u> Instantaneous	1
	<u>Contact arrangement – NO</u>	
	0 NO	A
	1 NO	B
	2 NO	C
	3 NO	D
	4 NO	E
	5 NO	F
	6 NO	G
	7 NO	H
	8 NO	J
	9 NO	K
	10 NO	L
	11 NO	M
	<u>Contact arrangement NC</u>	
	0 NC	A
	1 NC	B
	2 NC	C
	3 NC	D
	4 NC	E
	5 NC	F
	6 NC	G
	7 NC	H
	8 NC	J
	<u>Number of contacts</u> <sup>1)</sup>	
	Seven	4
	Eleven	7
	<u>Contact type</u>	
	NO (Standard) / NC (Standard)	0
	<u>Type of flag</u>	
	Hand reset flag	1

(Continued on following page)

<sup>1)</sup> Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
<b>Tripping relay (TR221)</b>		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ - □ □ □ <b>0</b>
	<u>Housing size</u> Case size E2 (4U high)	↑ C
	<u>Voltage rating</u> 24V DC 30V DC 50V DC 125V DC 240V DC	B C D F H
	<u>Contact type</u> NO (Standard) / NC (Standard)	

1) Number of contacts must match selected contact arrangement



# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR223)</b>		7 P G 1 5 □ □ - □ □ □ □ - □ □ □ 0
Hand reset high burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR2-- : high burden, EB2	2
	<u>Contact operation</u> Hand reset contacts	2
	<u>Operating coil cut-off</u> 40/60ms delay	3
	<u>Contact arrangement – NO</u> 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO 11 NO	D E F G H J K L M
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	A B C D E F G H J
	<u>Number of contacts <sup>1)</sup></u> Seven Eleven	4 7
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1

(Continued on following page)

Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
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**Tripping relay (TR223)**

7 P G 1 5 □ □ - □ □ □ □ - □ □ □ 0

Housing size  
Case size E4 (4U high)

Voltage rating  
24V DC  
30V DC  
50V DC  
125V DC  
240V DC



Number of contacts must match selected contact arrangement

# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR231)</b>		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ □ - □ □ □ □ 0
Electrical reset high burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR2-- : high burden, EB2	2
	<u>Contact operation</u> Electrical reset contacts	3
	<u>Operating coil cut-off</u> Instantaneous	1
	<u>Contact arrangement – NO</u>	
	0 NO	A
	1 NO	B
	2 NO	C
	3 NO	D
	4 NO	E
	5 NO	F
	6 NO	G
	7 NO	H
	8 NO	J
	9 NO	K
	10 NO	L
	<u>Contact arrangement NC</u>	
	0 NC	A
	1 NC	B
	2 NC	C
	3 NC	D
	4 NC	E
	5 NC	F
	6 NC	G
	7 NC	H
	8 NC	J
	<u>Number of contacts</u> <sup>1)</sup>	
	Six	3
	Ten	6
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1
	<u>Housing size</u> Case size E2 (4U high)	A

(Continued on following page)

1) Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
<b>Tripping relay (TR231)</b>	<u>Voltage rating</u> 24V DC 30V DC 50V DC 125V DC 240V DC	<b>7 P G 1 5</b> □ □ - □ □ □ □ □ - □ □ □ <b>0</b> <div style="text-align: right; margin-right: 20px;">             ↑              B              C              D              F              H           </div>

1) Number of contacts must match selected contact arrangement

# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR233)</b>		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ □ - □ □ □ 0
Electrical reset high burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR2-- : high burden, EB2	2
	<u>Contact operation</u> Electrical reset contacts	3
	<u>Operating coil cut-off</u> 40/60ms delay	3
	<u>Contact arrangement – NO</u> 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO	C D E F G H J K L
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	A B C D E F G H J
	<u>Number of contacts</u> <sup>1)</sup> Six Ten	3 6
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1
	<u>Housing size</u> Case size E4 (4U high)	C
	<u>Voltage rating</u> 125V DC	F

1) Number of contacts must match selected contact arrangement

## Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR241)</b>		<b>7 P G 1 5</b> □ □ - □ □ □ □ □ □ - □ □ □ 0
Hand and electrical reset high burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR2-- : high burden, EB2	2
	<u>Contact operation</u> Hand and electrical reset contacts	4
	<u>Operating coil cut-off</u> Instantaneous	1
	<u>Contact arrangement – NO</u> 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO	C D E F G H J K L
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	A B C D E F G H J
	<u>Number of contacts</u> <sup>1)</sup> Six Ten	3 6
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1
	<u>Housing size</u> Case size E2 (4U high)	A
	<u>Voltage rating</u> 24V DC 30V DC 50V DC 125V DC 240V DC	B C D F H

1) Number of contacts must match selected contact arrangement

# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR243)</b>		7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 0
Hand and electrical reset high burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR2-- : high burden, EB2	2
	<u>Contact operation</u> Hand and electrical reset contacts	4
	<u>Operating coil cut-off</u> 40/60ms delay	3
	<u>Contact arrangement – NO</u> 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO	C D E F G H J K L
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	A B C D E F G H J
	<u>Number of contacts <sup>1)</sup></u> Six Ten	3 6
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Hand reset flag	1
	<u>Housing size</u> Case size E4 (4U high)	C
	<u>Voltage rating</u> 125V DC	F

1) Number of contacts must match selected contact arrangement

## Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR312)</b>		7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 0
Self reset low burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR3-- : low burden, CEGB spec. P15	3
	<u>Contact operation</u> Self reset contacts	1
	<u>Operating coil cut-off</u> Economy	2
	<u>Contact arrangement – NO</u> 0 NO 1 NO 2 NO 3 NO 4 NO 5 NO	A B C D E F
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC	A B C D E F
	<u>Number of contacts</u> Five	2
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> No flag Hand reset flag	0 1
	<u>Housing size</u> Case size E4 (4U high)	C
	<u>Voltage rating</u> 125V DC	F



## Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR431)</b>		7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 0
Electrical reset low burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR4-- : low burden, CEGB spec. TDM 5/11	4
	<u>Contact operation</u> Electrical reset contacts	3
	<u>Operating coil cut-off</u> Instantaneous	1
	<u>Contact arrangement – NO</u> 0 NO 1 NO 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO	A B C D E F G H J
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	A B C D E F G H J
	<u>Number of contacts</u> <sup>1)</sup> Seven Eight	4 5
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Self reset flag <sup>2)</sup>	3
	<u>Housing size</u> Case size E4 (4U high)	C
	<u>Voltage rating</u> 50 / 125V DC	N

1) Number of contacts must match selected contact arrangement

2) Flag indication "IN" and "OUT"

## Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR512)</b>		7 P G 1 5 □ □ - □ □ □ □ - □ □ □ 0
Self reset high burden unstabilising relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR5-- : high burden, CEGB spec. P11	5
	<u>Contact operation</u> Self reset contacts	1
	<u>Operating coil cut-off</u> Economy	2
	<u>Contact arrangement – NO</u> 2 NO 3 NO 4 NO 5 NO 6 NO	C D E F G
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC	A B C D E
	<u>Number of contacts</u> Six	3
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> No flag	0
	<u>Housing size</u> Case size E4 (4U high)	C
	<u>Voltage rating</u> 50V DC 125V DC	D F

# Ordering Information - 7PG15 TR

Product description	Variants	Order No.
<b>Tripping relay (TR901)</b>		7 P G 1 5 □ - □ □ □ □ □ - □ □ □ 0
Electrical reset high burden repeat relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	<u>TR - tripping</u> TR9-- : high burden, EB2	6
	<u>Contact operation</u> Electrical reset contacts	3
	<u>Operating coil cut-off</u> Instantaneous	1
	<u>Contact arrangement – NO</u> 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO	C D E F G H J K L
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	A B C D E F G H J
	<u>Number of contacts</u> Ten	6
	<u>Contact type</u> NO (Standard) / NC (Standard)	0
	<u>Type of flag</u> Self reset flag <sup>1)</sup>	3
	<u>Housing size</u> Case size E2 (4U high)	A
	<u>Voltage rating</u> 50V DC 125V DC	D F

1) Flag indication "OPEN" and "CLOSED"

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options should therefore be specified in the contract.