



Reyrolle  
Protection  
Devices

## 7PG15 - TR Relays

High Speed Tripping

Energy Management.

**SIEMENS**

## High Speed Tripping



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

### Low burden, TR1 series

### High burden, TR2 series

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.

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.

## Switching Relay, TR431

### Protection unstabilising relay, TR512

### 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 1 minute (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>		7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 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.
Tripping relay (TR112)		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 (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>		<b>7 P G 1 5</b> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>0</b>
	<u>Voltage rating</u>	
	24V DC	<b>B</b>
	30V DC	<b>C</b>
	50V DC	<b>D</b>
	60V DC	<b>E</b>
	125V DC	<b>F</b>
	240V DC	<b>H</b>

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 <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 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	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 <sup>1)</sup></u>	
	Six	3
	Ten	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.
---------------------	----------	-----------

Tripping relay (TR131)		7 P G 1 5 □ □ - □ □ □ □ □ - □ □ □ 0
	<div> <div>Housing size</div> <div>Case size E2 (4U high)</div> </div> <div> <div>Voltage rating</div> <div>24V DC</div> <div>30V DC</div> <div>50V DC</div> <div>60V DC</div> <div>125V DC</div> <div>240V DC</div> </div>	<div> <div>↑</div> <div>A</div> </div> <div> <div>↑</div> <div>B</div> <div>C</div> <div>D</div> <div>E</div> <div>F</div> <div>H</div> </div>

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 □ □ - □ □ □ □ □ □ - □ □ □ 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	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 <sup>1)</sup></u>	
	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)

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

Product description	Variants	Order No.
Tripping relay (TR141)		7 P G 1 5 □ □ - □ □ □ □ □ - □ □ □ 0
	<u>Voltage rating</u>	<div> <div> <div>↑</div> <div>B</div> <div>C</div> <div>D</div> <div>E</div> <div>F</div> <div>H</div> </div> </div>
	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	Order No.
<b>Tripping relay (TR212, TR214)</b> Self reset high burden tripping relay.	7 P G 1 5 <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0
<u>TR - tripping</u> TR2-- : high burden, EB2	2
<u>Contact operation</u> Self reset contacts	1
<u>Operating coil cut-off</u> Economy Economy and 2 second delay on reset	2 4 C
<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	A 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

1) Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
Tripping relay (TR212, TR214)		7 P G 1 5 □ □ - □ □ □ □ □ - □ □ □ 0
	<u>Type of flag</u> Hand reset flag	↑ 1
	<u>Housing size</u> Case size E2 (4U high) Case size E4 (4U high)	↑ A C
	<u>Voltage rating</u> 24V DC 30V DC 50V DC 125V DC 240V DC Contact type NO (Standard) / NC (Standard)	↑ 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 (TR221)</b>		<b>7 P G 1 5</b> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> 0
Hand reset high burden tripping relay.		↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑ ↑
	TR - tripping TR2-- : high burden, EB2	2
	Contact operation Hand reset contacts	2
	Operating coil cut-off Instantaneous	1
	Contact arrangement – NO	
	3 NO	
	4 NO	
	5 NO	
	6 NO	
	7 NO	
	8 NO	
	9 NO	
	10 NO	
	11 NO	
	Contact arrangement NC	
	0 NC	
	1 NC	
	2 NC	
	3 NC	
	4 NC	
	5 NC	
	6 NC	
	7 NC	
	8 NC	
	Number of contacts <sup>1)</sup>	
	Seven	4
	Eleven	7
	Contact type	
	NO (Standard) / NC (Standard)	0
	Type of flag	
	Hand reset flag	1

(Continued on following page)

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

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

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)

Product description	Variants	Order No.
<b>Tripping relay (TR223)</b>		<b>7 P G 1 5</b> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>0</b>
	<u>Housing size</u> Case size E4 (4U high)	<div> <div>↑</div> <div>C</div> </div> <div> <div>↑</div> <div>B</div> <div>C</div> <div>D</div> <div>F</div> <div>H</div> </div>
	<u>Voltage rating</u> 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 □ □ - □ □ □ □ □ □ - □ □ □ 0</b>
Electrical reset high burden tripping relay.		<div> <div>↑</div> <div>2</div> </div> <div> <div>↑</div> <div>3</div> </div> <div> <div>↑</div> <div>1</div> </div> <div> <div>↑</div> <div>A</div> </div> <div> <div>↑</div> <div>B</div> </div> <div> <div>↑</div> <div>C</div> </div> <div> <div>↑</div> <div>D</div> </div> <div> <div>↑</div> <div>E</div> </div> <div> <div>↑</div> <div>F</div> </div> <div> <div>↑</div> <div>G</div> </div> <div> <div>↑</div> <div>H</div> </div> <div> <div>↑</div> <div>J</div> </div> <div> <div>↑</div> <div>K</div> </div> <div> <div>↑</div> <div>L</div> </div> <div> <div>↑</div> <div>A</div> </div> <div> <div>↑</div> <div>B</div> </div> <div> <div>↑</div> <div>C</div> </div> <div> <div>↑</div> <div>D</div> </div> <div> <div>↑</div> <div>E</div> </div> <div> <div>↑</div> <div>F</div> </div> <div> <div>↑</div> <div>G</div> </div> <div> <div>↑</div> <div>H</div> </div> <div> <div>↑</div> <div>J</div> </div> <div> <div>↑</div> <div>3</div> </div> <div> <div>↑</div> <div>6</div> </div> <div> <div>↑</div> <div>0</div> </div> <div> <div>↑</div> <div>1</div> </div> <div> <div>↑</div> <div>A</div> </div> <div> <div>↑</div> <div>A</div> </div> <div> <div>↑</div> <div>A</div> </div>

(Continued on following page)

1) Number of contacts must match selected contact arrangement

Product description	Variants	Order No.
Tripping relay (TR231)		7 P G 1 5 □ □ - □ □ □ □ - □ □ □ 0
	<u>Voltage rating</u>	
	24V DC	B
	30V DC	C
	50V DC	D
	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 (TR233)</b>		<b>7 P G 1 5</b> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>0</b>
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 <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 (TR241)</b>		<b>7 P G 1 5</b> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> - <input type="checkbox"/> <input type="checkbox"/> <input type="checkbox"/> <b>0</b>
Hand and electrical reset high burden tripping relay.		<div> <div>↑</div> <div>2</div> </div> <div> <div>↑</div> <div>4</div> </div> <div> <div>↑</div> <div>1</div> </div> <div> <div>↑</div> <div>C</div> </div> <div> <div>↑</div> <div>D</div> </div> <div> <div>↑</div> <div>E</div> </div> <div> <div>↑</div> <div>F</div> </div> <div> <div>↑</div> <div>G</div> </div> <div> <div>↑</div> <div>H</div> </div> <div> <div>↑</div> <div>J</div> </div> <div> <div>↑</div> <div>K</div> </div> <div> <div>↑</div> <div>L</div> </div> <div> <div>↑</div> <div>A</div> </div> <div> <div>↑</div> <div>B</div> </div> <div> <div>↑</div> <div>C</div> </div> <div> <div>↑</div> <div>D</div> </div> <div> <div>↑</div> <div>F</div> </div> <div> <div>↑</div> <div>H</div> </div>
	<u>TR - tripping</u>	
	TR2-- : high burden, EB2	
	<u>Contact operation</u>	
	Hand and electrical reset contacts	
	<u>Operating coil cut-off</u>	
	Instantaneous	
	<u>Contact arrangement – NO</u>	
	2 NO	
	3 NO	
	4 NO	
	5 NO	
	6 NO	
	7 NO	
	8 NO	
	9 NO	
	10 NO	
	<u>Contact arrangement NC</u>	
	0 NC	
	1 NC	
	2 NC	
	3 NC	
	4 NC	
	5 NC	
	6 NC	
	7 NC	
	8 NC	
	<u>Number of contacts <sup>1)</sup></u>	
	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
	<u>Voltage rating</u>	
	24V DC	B
	30V DC	C
	50V DC	D
	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 (TR243)</b>		<b>7 P G 1 5 □ □ - □ □ □ □ □ □ - □ □ □ 0</b>
Hand and electrical reset high burden tripping relay.		<div> <div>↑</div> <div>2</div> </div> <div> <div>↑</div> <div>4</div> </div> <div> <div>↑</div> <div>3</div> </div> <div> <div>↑</div> <div>C</div> </div> <div> <div>↑</div> <div>D</div> </div> <div> <div>↑</div> <div>E</div> </div> <div> <div>↑</div> <div>F</div> </div> <div> <div>↑</div> <div>G</div> </div> <div> <div>↑</div> <div>H</div> </div> <div> <div>↑</div> <div>J</div> </div> <div> <div>↑</div> <div>K</div> </div> <div> <div>↑</div> <div>L</div> </div> <div> <div>↑</div> <div>A</div> </div> <div> <div>↑</div> <div>B</div> </div> <div> <div>↑</div> <div>3</div> </div> <div> <div>↑</div> <div>6</div> </div> <div> <div>↑</div> <div>0</div> </div> <div> <div>↑</div> <div>1</div> </div> <div> <div>↑</div> <div>C</div> </div> <div> <div>↑</div> <div>F</div> </div>
	<u>TR - tripping</u> TR2-- : high burden, EB2	
	<u>Contact operation</u> Hand and electrical reset contacts	
	<u>Operating coil cut-off</u> 40/60ms delay	
	<u>Contact arrangement – NO</u> 2 NO 3 NO 4 NO 5 NO 6 NO 7 NO 8 NO 9 NO 10 NO	
	<u>Contact arrangement NC</u> 0 NC 1 NC 2 NC 3 NC 4 NC 5 NC 6 NC 7 NC 8 NC	
	<u>Number of contacts <sup>1)</sup></u> Six Ten	
	<u>Contact type</u> NO (Standard) / NC (Standard)	
	<u>Type of flag</u> Hand reset flag	
	<u>Housing size</u> Case size E4 (4U high)	
	<u>Voltage rating</u> 125V DC	

1) Number of contacts must match selected contact arrangement

## Ordering Information - 7PG15 TR

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



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

## 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>	6
	TR9-- : high burden, EB2	3
	<u>Contact operation</u>	1
	Electrical reset contacts	
	<u>Operating coil cut-off</u>	
	Instantaneous	
	<u>Contact arrangement – NO</u>	
	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>	6
	Ten	0
	<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	D
	125V DC	F

1) Flag indication "OPEN" and "CLOSED"

Siemens Protection Devices Limited  
P.O. Box 8  
North Farm Road  
Hebburn  
Tyne & Wear  
NE31 1TZ  
United Kingdom  
Phone: +44 (0)191 401 7901  
Fax: +44 (0)191 401 5575  
E-mail: [marketing.spdl.gb@siemens.com](mailto:marketing.spdl.gb@siemens.com)

EMDG-C10084-00-76GB

June 2014

For enquires please contact our Customer Support Centre

Phone: +49 180/524 8437 (24hrs)  
Fax: +49 180/524 24 71  
E-mail: [support.energy@siemens.com](mailto:support.energy@siemens.com)  
[www.siemens.com/protection](http://www.siemens.com/protection)

Subject to change without notice,. Printed in the UK.