

## 7PA22/23 Auxiliary Relays for Various Applications



Fig. 14/2 7PA2 auxiliary relays

### Description

Due to their quality, reliability and design, these relays are optimal for applications requiring high reliability and availability such as power stations, substations, railway and industrial plants. Typical examples include petrochemical industry, chemical industry, cement industry, rolling mills etc.

The relays comply with the IEC, EN, IEEE standards (type and routine test) and bear the CE mark.

The robust switch contacts are characterized by high make/break capacity, overload capability and continuous current intensity capacity; thus perfect insulation is obtained. Direct control of high-voltage and medium-voltage switchgear is possible.

Their high degree of protection and the transparent cover ensure reliable operation in tropical and/or salty sea air ambient conditions.

### Technical data for 7PA22 and 7PA23

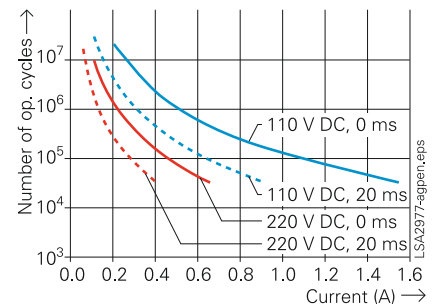
Switching contacts  
 Continuous current 10 A  
 Overload capability 80 A/200 ms  
 150 A/10 ms  
 Switching current/voltage 40 A/0.5 s/110 V DC

Breaking capacity for  $10^5$  operating cycles

V DC	Non-inductive		Inductive, 20 ms	
	1 contact	2 contacts in series	1 contact	2 contacts in series
24	6.6	12.7	3.2	6.0
60	2.6	4.9	1.4	2.7
125	1.2	2.2	0.6	1.1
220	0.6	1.1	0.3	0.6

For details see characteristics

$V_{max}$ , open contact 250 V DC/400 V AC  
 Mechanical service life  $10^7$  operating cycles  
 Operating temperature -10 °C to +55 °C  
 14 °F to 131 °F  
 Max. permissible humidity 93 % at 40 °C/104 °F  
 Seismic stress class according to IEEE 501  
 Degree of ZPA 3 g acceleration at 33 Hz



### Standards

Electrical tests performed according to IEC 60255

- Dielectric test 2 kV/50 Hz/ 1 min  
 - Surge withstand 5 kV/1.2/50  $\mu$ s test  
 - Insulation > 2000 M $\Omega$ /  
 500 V<sub>peak-to-peak</sub>

Flammability tests according to IEC 60692-2-1

Plastic materials UL 94: VO,  
 IEC 60695: 850 °C/30 s  
 1562 °F/30 s

Degree of protection Relay: IP 40  
 acc. to IEC 60529 With socket cover:  
 IP 50

Climatic stress test according to

- IEC 60255-7 Non-dissipating unit  
 dry heat +70 °C/96 h 158 °F/96 h  
 Dissipating unit  
 +55 °C/96 h 131 °F/96 h  
 - IEC 60068-2-30 +55 °C/12 h  
 cyclic humid heat 131 °F/12 h  
 - IEC 60068-2-1 100 cycles  
 cold Non-dissipating unit  
 -10 °C/2 h 14 °F/2 h  
 - IEC 60255-7 At rated voltage  $V_N$   
 thermal aging test +55 °C/1440 h  
 131 °F/1440 h

## 7PA22 Fast-acting lockout relay

### Description

The bistable 7PA22 is a fast-acting lockout relay with eight changeover contacts and is plugged into a mounting frame equipped with a plug-in socket (type 7XP9010) with screw-type terminals at the rear.

### Functions

No continuous power consumption. Position indication on the front side. Mechanical reset pushbutton. Position memory with two positions (e.g. for yes/no, open/close, auto/manual, local/remote etc.).

### Technical data

While the auxiliary voltage is being supplied to the SET coil, the reset pushbutton must not remain pushed longer than 20 s.

#### Rated voltages and consumption

$V_N$	Voltage range	Consumption while switching
V DC	V DC	
24	19 – 26	≤ 48 W
30	24 – 33	
60	48 – 66	
110	88 – 121	
125	100 – 137	
220	176 – 242	

Pick-up time: < 10 ms

General description see page 14/5.

Refer to part 15 for dimension drawings.

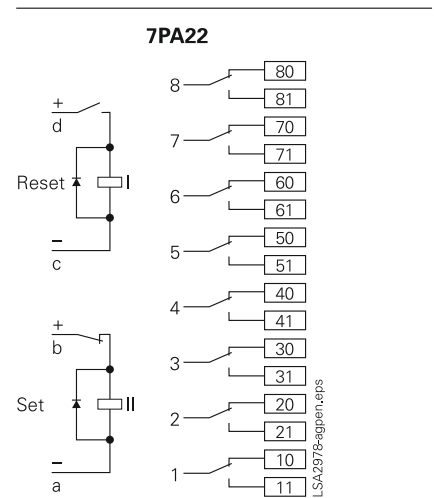


Fig. 14/3 Connection diagram

### Selection and ordering data

Description	Order No.
7PA22 fast-acting lockout relay	7PA22□1-□
<i>Auxiliary voltage</i>	
24 V DC	1
60 V DC	2
110 V DC	3
220 V DC	4
125 V DC	5
30 V DC	6
<i>Socket</i>	
without socket	0
with flush-mounting socket 7XP9010-1	1

### Accessories

Description	Order No.
<i>Socket as spare part</i>	
Flush mounting	7XP9010-1
Surface mounting	7XP9012-0

## 7PA23

### Fast-acting lockout relay

#### Description

The bistable 7PA23 is a fast-acting lockout relay with four changeover contacts and is plugged into a mounting frame equipped with a plug-in socket (type 7XP9011) with screw-type terminals at the rear.

#### Functions

No continuous power consumption. Position indication on the front side. Mechanical reset pushbutton. Position memory with two positions (e.g. for yes/no, open/close, auto/manual, local/remote etc.).

#### Technical data

While the auxiliary voltage is being supplied to the SET coil, the reset pushbutton must not remain pushed longer than 20 s.

#### Rated voltages and consumption

$V_N$	Voltage range	Consumption while switching
V DC	V DC	
24	19 – 26	
30	24 – 33	
60	48 – 66	≤ 24 W
110	88 – 121	
125	100 – 137	
220	176 – 242	

Pick-up time: < 8 ms

General description see page 14/5.

Refer to part 15 for dimension drawings.

#### 7PA23

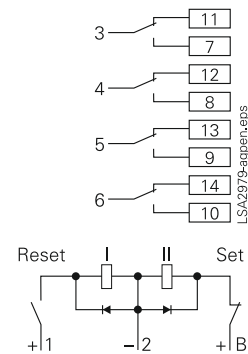


Fig. 14/4 Connection diagram  
Contacts represented in position RESET

#### Selection and ordering data

Description	Order No.
<b>7PA23 fast-acting lockout relay</b>	<b>7PA23□1-□</b>
<i>Auxiliary voltage</i>	
24 V DC	1
60 V DC	2
110 V DC	3
220 V DC	4
125 V DC	5
30 V DC	6
<i>Socket</i>	
without socket	0
with flush-mounting socket 7XP9011-1	1

#### Accessories

Description	Order No.
<i>Socket as spare part</i>	
Flush mounting	7XP9011-1
Surface mounting	7XP9013-0