

# 8-channel relay output board



## PX 8500

**Cascadable to 16/24/32 relays**

**8 relays on sockets**

**DIN-rail mounting**

**30 VDC - 277 VAC**

**300 W - 2500 VA**

**10 A**

The ADDIVARIOUS PX 8500 is an external 8-channel relay board for the connection of digital output boards. It can be cascaded in 16, 24 and 32 relays and is intended for mounting on DIN supporting rails. The board provides a convenient interface between an industrial process and the SUB-D connectors on ADDI-DATA boards.

The change-over contacts of the relay are controlled through 24 V signals. The 24 V voltage supply is protected through varistors and transil diodes.

The board is intended for the use with 220 V supply. The creeping distance (acc. to DIN VDE0110) and the connector cross sections allows high-power switching (up to 2.500 VA).

The board has a female SUB-D connector for connecting an ADDI-DATA digital 24 V output board through a standard I/O cable ST010. The red LEDs display the state of the relays (open/closed). A green LED displays the ON/OFF of the operating voltage.

The 37-pin cable shielded can be grounded on both sides for the protection against high-frequency EMI.

### Features

- Relay output board with 8 relays, cascadable in 16, 24 and 32 relays
- Max. switching voltage: 30 VDC/277 VAC
- Max. switching current: 10 A
- All terminals intended for large conductor cross sections up to 2.5 mm<sup>2</sup>
- Operating voltage display through green LED
- Relay state display through red LED
- Relays mounted on sockets
- High switching capacity
- Long-lasting life

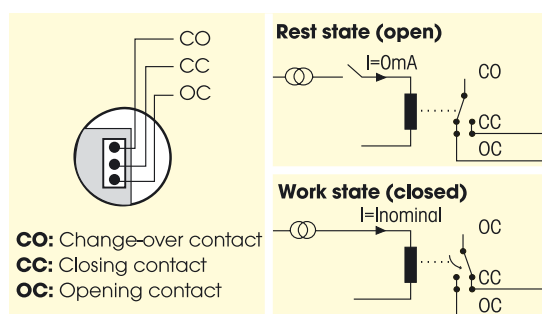
### Safety features

- Overvoltage protection of the 24 V supply voltage through varistors and transil diodes
- Contact protection of the relays through varistors (Option Vt)
- 4 mm creeping distance between change-over, closer and opening contact
- 6 mm creeping distance between change-over contact and closer of adjoining relay
- Free-wheeling diode in the coil circuit
- With housing for mounting on a standard DIN rail, (option G)
- Operating safety tested according to the low-voltage directive: 73/23/EEC

### Applications

- Industrial digital I/O control
- Automatic test equipment
- External high power relay control
- Alarm monitoring
- Test automation
- Alarm monitoring
- Digital monitoring
- ON/OFF monitoring of motors, lights ...
- ...

### Function principle of the relays



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PX 8500

## Specifications

### Noise immunity test level

Electric strength of the relays	
At open contact:	1000 Veff
Contact coil:	5000 Veff
Isolation structure of the board according to VDE0110:	Group C/250VAC/300VAC

### Contact side

Type of contacts:	8 change-over contacts
Max. switching voltage:	30 VDC - 277 VAC
Max. switching capacity:	300 W - 2500 VA
Max. switching current:	10 A
Contact resistance:	<100 mW
Response time:	15 ms
Release time:	5 ms
Mechanical life:	5,000,000 operations
Operating time at max. switching capacity:	100,000 operations

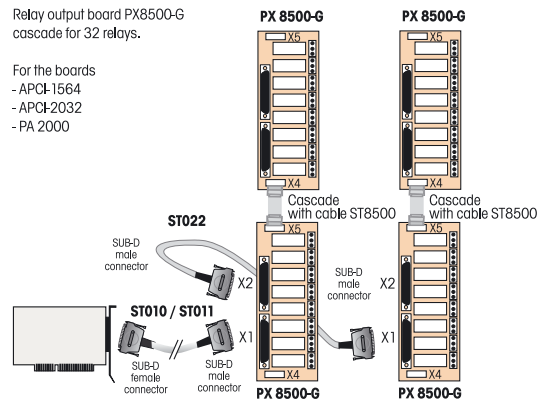
### Control side

Switching behaviour:	Monostable
Operating voltage:	24 VAC
Operating efficiency:	533 mW
Switching frequ. at max. load:	20 switchings/minute
Threshold voltage at +20°C:	16.8 V
Release voltage at +20°C:	2.4 V

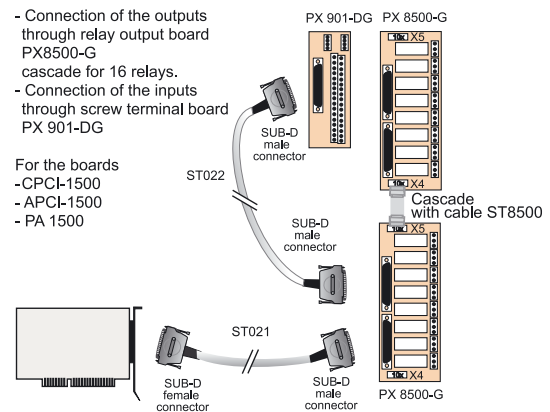
### Physical and environmental conditions

Operating voltage:	+ 24 V
Current consumption:	210 mA typ.
Dimensions (L x W x H):	210 x 68 x 42 mm
Dimensions (L x W x H):	With housing 212 x 87 x 72 mm
Connector:	2 x 37-pin SUB-D female connector
<b>X1:</b>	For the connection to the PC
<b>X2:</b>	For cascading the PX 8500 in max. 32 relays, for example for the digital output board PA 2000. In this case digital output signal 1 corresponds to the 24 V control signal of the relay 1, output 2 to relay 2, etc ...
Temperature range:	0-70°C
Humidity:	30-95 %

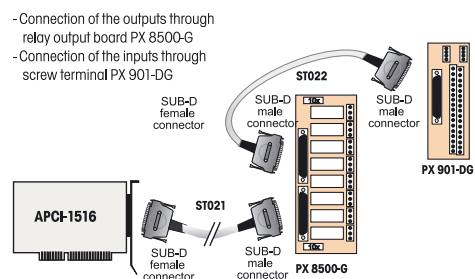
## PX 8500 cascaded in 32 relays



## PX 8500 cascaded in 16 relays



## Connection example for the board APCI-1516



Standard round cable ST010



## ORDERING INFORMATION

### ADDIVARIOUS PX 8500

8-channel relay output board. Incl. technical description

<b>PX 8500:</b>	Basic board with 8 relays
<b>PX 8500-G:</b>	with housing for mounting on DIN rail
<b>PX 8500-Vt:</b>	PX 8500 with varistors
<b>PX 8500-VtG:</b>	PX 8500 with varistors and housing for mounting on DIN rail

### Connection

<b>ST8500:</b>	Ribbon cable for cascading the board to 16, 24 or 32 relays
<b>ST021:</b>	Standard round cable, shielded, for connecting the APCI-1500, PA 1500, APCI-1516
<b>ST022:</b>	Standard round cable, shielded, for cascading two PX 8500
<b>ST010:</b>	Standard round cable, shielded, twisted pairs, 2 m, for connecting the PA 2000, APCI-2032, APCI-1564
<b>ST011:</b>	Same as ST010, 5 m