

■ ADP-TSX-DO-04

16 channels - Discrete Outputs adapter with electromechanical relays - Sourcing Type

Description :

The **ADP-TSX-DO-04** interface adapter allows to connect up to 8 Discrete Outputs to a Sourcing type Distributed Control System (DCS), or a Programmable Logic Controller (PLC).

It is particularly suitable for migration of existing Télémécanique TSX7™ I/O card with reference as follow :

- TSX-DST 16 35 : 16CH Discrete Output card

The main advantages of the **ADP-TSX-DO-04** for TSX7™ migration are as follow :

- The “BLK” connector is simply disconnected from the TSX7 I/O card and reconnected to the front connector of the **ADP-TSX-DO-04** without modification of the wiring (same labels and same electrical characteristics).
- Since the wiring is not affected, the sync times are reduced.

The **ADP-TSX-DO-04** interface adapter can be connected to a DO card of a DCS or a PLC using one DSUB 37 pin male connector located on the BC-11406 rack.

The connection is done using a shielded cable, with a DSUB 37 socket female connector at one end, and labeled flying wires or a suitable connector matching with the new system DO card used at the other end.

Each control signal commands a 24Vdc relay in order to drive a load (a motor, a valve, a solenoid...)

A yellow LED indicates the command status of each channel through the “BLK” connector.



Product options :

Option -1 : ADP-TSX-DO-04-1 Standard version

Technical specifications :

Dimensions :

Length : 290 mm

Width : 51 mm

Height : 176.7 mm



Weight :

300 g

Temperature range :

Operating : 0°C to 50°C

Storage : -20°C to 60°C

Humidity :

Up to 90% (no condensation)

Connection to the DCS or to the PLC :

The BC-11406 rack provides the connection to the DCS or PLC by a DSUB 37 pin male connector with UNC 4-40 female lock

Channel characteristics :

Each output controls a 24Vdc relay (1 contact) protected by a varistor

Protection for each channel :

External fuse available on the existing installation

Insulation voltage :

1500 Vac between input (control signal) and output (contacts)

Contact characteristics :

See relay specifications sheet page 2

Mounting :

In a BC-11406-1 or a BC-11406-2 rack





TYPE	ELECTROMECHANICAL RELAY
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REFERENCE	REL24-STD-945144
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General characteristics :

Mechanical expected life	10 000 000 cycles
Expected life at max load	60 000 cycles
Operate time / release time / debounce	5ms / 3ms / 5ms
Coil / contacts insulation	6000 Vac
Dielectric strength between open contacts	1000 Vac
Ambient temperature	-40°C to 85°C (Socket : -40 / +70)
Initial insulation resistance	1000MΩ
Environmental protection	RT II
Dimensions	L : 28mm / W : 5mm / H : 15mm
Weight	6g

Coil characteristics :

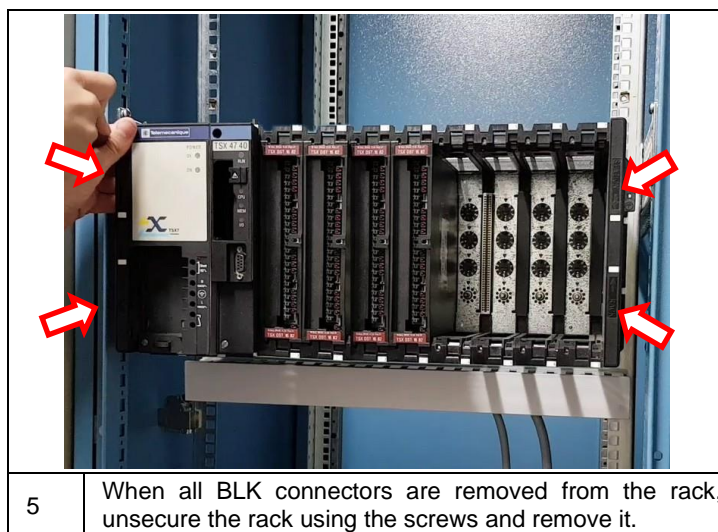
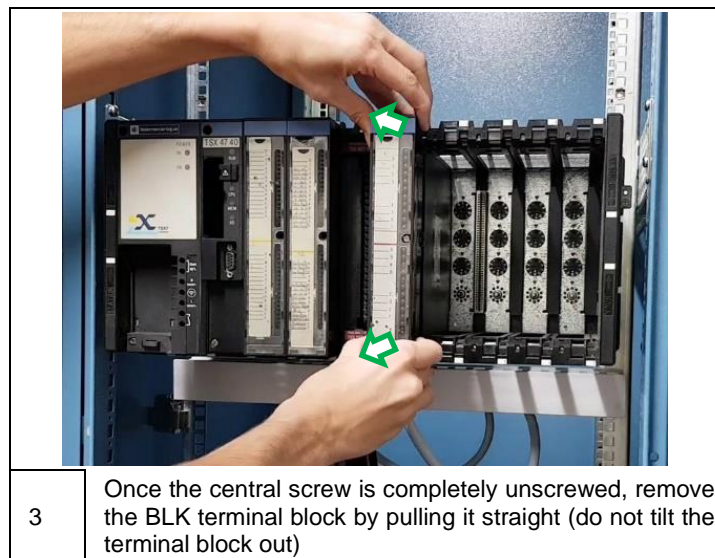
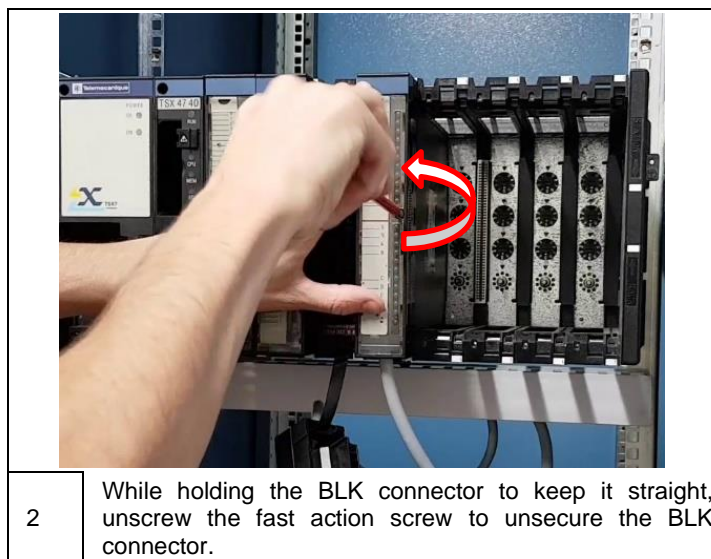
Nominal voltage	24Vcc
Voltage operating range	17 - 36Vdc
Holding voltage	9,6Vdc
Must drop-out voltage	1,2Vdc
Nominal operating current	7,1mA
Coil resistance	3300Ω +/-10%
Nominal power	0,17W (24Vdc)

Contacts characteristics :

Contact material	AgNi (or AgSnO2)
Arrangement	1 contact (SPDT)
Rated current / Max peak current	6A / 10A
Rated voltage / Max switching voltage	250Vac / 400Vac
Minimum switching load	500mW (12Vdc / 10mA)
Breaking capacity in DC	6A (30V). 0,5A (48V).0,12A (220V)
Breaking capacity in AC	6A (250V)



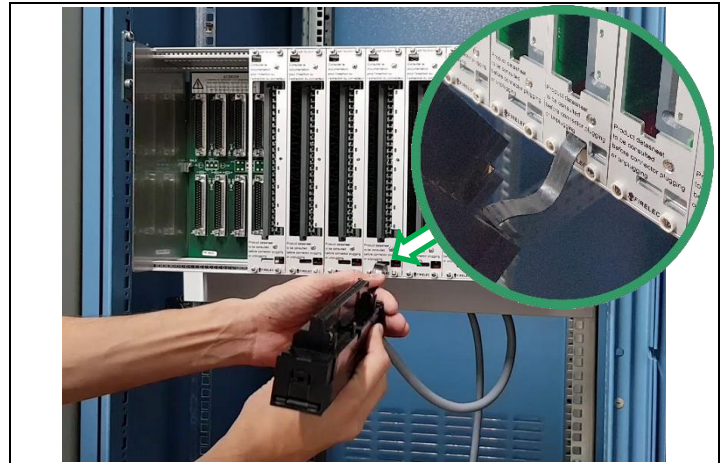
Disconnecting the BLK terminals and removing the TSX rack :



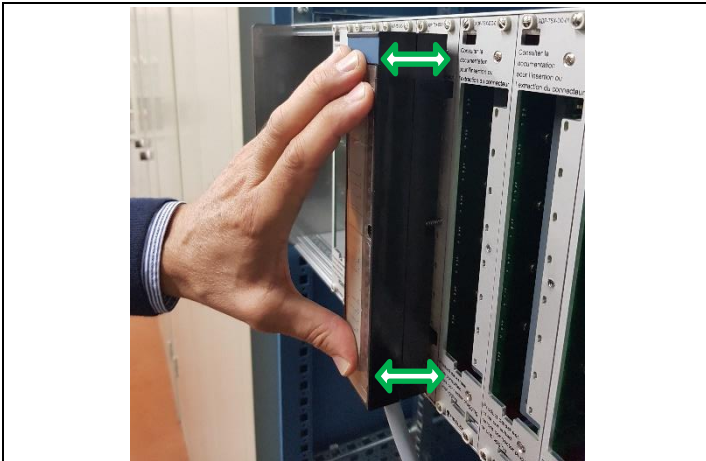
Installation :



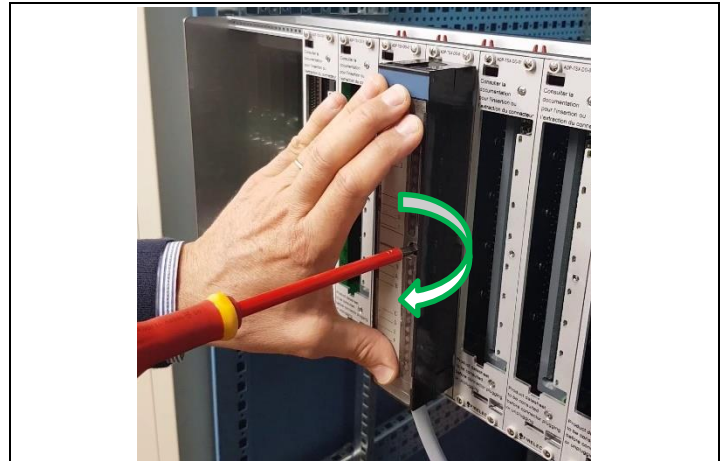
- 1 Install the FIRELEC BC-11406 in place of the legacy TSX file and secure it with the screws.



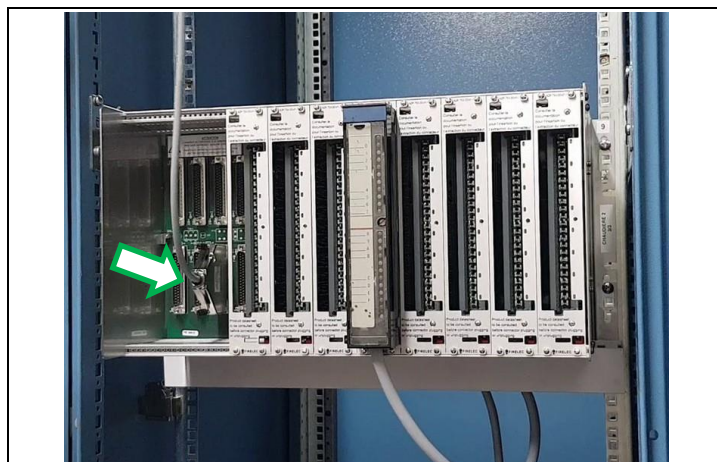
- 2 Insert the securing tabs for each ADP-TSX into the intended slot.



- 3 Place the BLK connector and hold it in place with the screw being in contact with the adapter faceplate. Be sure to verify the correct alignment. Don't push it, it will be secured just using the fast action screw.



- 4 While holding the BLK connector to keep it straight, screw the fast action screw to secure the BLK connector.



- 5 Once the BLK connectors are secured, connect the BC-11406 to the I/O cards of the new system using FIRELEC cables.

