

TECOMAT TC700 – Relay and 230 V AC output modules

Type	OR-7451	OR-7453	OS-7405
Number of outputs	16	8	16
Switching voltage max.	250 V AC	250 V AC	230 V AC
Switching current	3 A	3 A	0.25 A
Type of output	Relay contact	Relay contact	Solid State relay
Connecting	20 pin removable Screw type connector Screwless connector	20 pin removable Screw type connector Screwless connector	20 pin removable Screw type connector Screwless connector

Basic features

- Expansion modules with 8 or 16 relay outputs for enlarging number of I/O of the TC700 configuration.
- Outputs are organized in groups with one common wire, or with 8 separated normally open and normally closed contacts.
- Galvanic isolation of outputs from internal circuits of controller is provided.
- Status of the module and of each output is indicated by LED on the front panel.
- Modules can be placed in any position of the rack.
- Modules support a hot-swap. This feature is programmable and must be enabled by the programmer.
- Other details are given in tables.

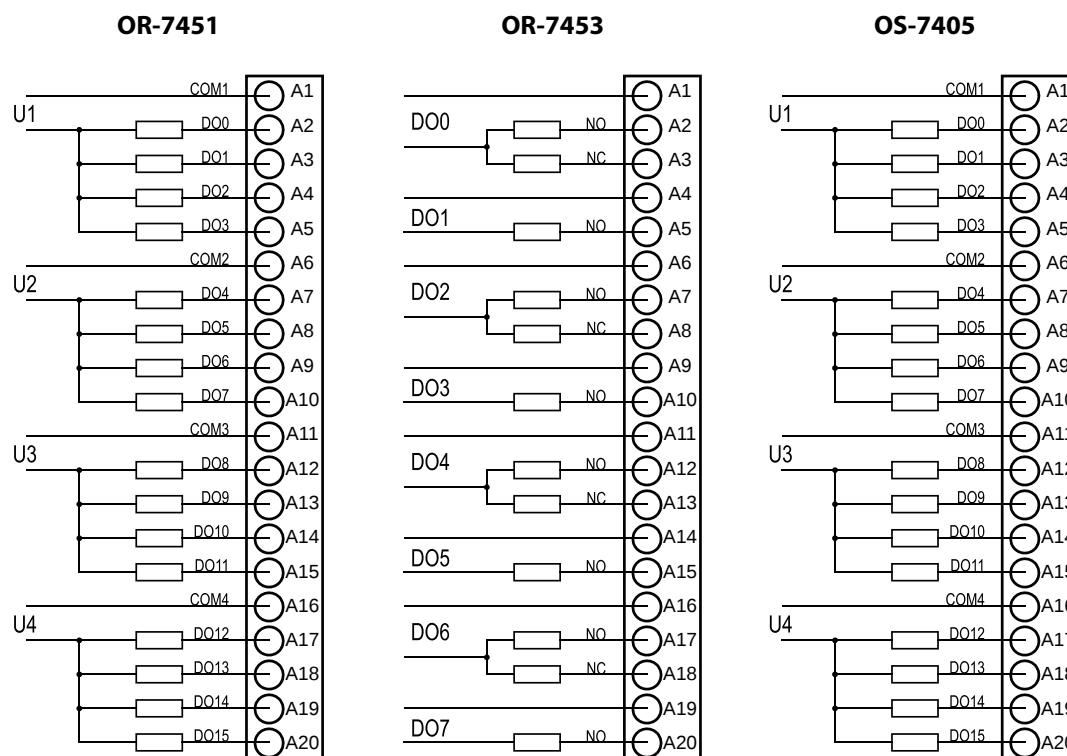
Connecting

- Front end connectors are ordered separately since user can choose the screw/screwless one.
- Modules are to be fixed in the rack by one screw at the top of the module.
- Modules are addressed by their position in the rack.
- Modules are power supplied from the rack. The loads must be supplied from external power supply.

Use

- To switch on/off the loads of controlled process or machine at the 24 V DC or 230 V AC levels.

Connection examples



Conductors cross-section

max. 2,5 mm²

max. 2,5 mm²

max. 2,5 mm²



OR-7451



OR-7453



OS-7405

Binary outputs		OR-7451	OR-7453	OS-7405
No. of outputs / groups		16/ 1	8/ 8	16/ 4
Galvanic isolation		Yes	Yes	Yes
Type of output		Relay contact NO	Relay contact 4× NO/NC 4× NO	Solid State relay (zero switching relay)
Common pole		yes	Each contact separated	Yes, for each group
Switching voltage		12 V – 250 V	12 V - 250 V	20 V AC ÷ 250 V AC
Switching current		max. 3 A	max. 3 A	max. 0.25 A, min. 5 mA
Common pole current		max. 10 A	N/ A	max. 4 A
Leakage current		N/A	N/ A	<100 µA
Mechanic lifetime (operations)		5 000 000	5 000 000	N/ A
Electric lifetime (operations)		400 000/ Resist. load 7 000/ DC13 inductive load 100 000/ AC13 inductive load	400 000/ Resist. load 7 000/ DC13 inductive load 100 000/ AC13 inductive load	N/ A
Switch on/switch off period		5 ms/ 6 ms	5 ms/ 6 ms	10ms (Next crossing the zero)
Short-circuit protection		external	external	-
Overload protection		Yes <6,5A	Yes, thermal protection	-
Spike suppressor of inductive load		External RC, varistor or diode snubber	External RC, varistor or diode snubber	External RC, varistor snubber
Insulation voltage between inputs and internal circuits		3750 V AC	3750 V AC	3750 V AC

Power supply		OR-7451	OR-7453	OS-7405
Power supply voltage from the rack		24 V DC	24 V DC	24 V DC
Power consumption		Max. 3.8 W	Max. 2.4 W	Max. 1.8 W
External power supply for output circuits		24 V DC/ 350 mA	24 V DC/ 350 mA	24 V DC/ 230 V AC
Module power dissipation		Max. 3.8 W	Max. 2.4 W	Max. 5 W

Dimensions and weight		OR-7451	OR-7453	OS-7405
Dimensions		137 × 30 × 198 mm	137 × 30 × 198 mm	137 × 30 × 198 mm
Weight		300 g	300 g	300 g

Order number	
TXN 174 51	OR-7451, 16 × RO GI, 16 × NO contacts
TXN 174 53	OR-7453, 8 × RO, GI, 4 × NO contacts, 4 × both NO/ NC contacts
TXN 174 05	OS-7405, 16 × DO, GI, 230 V AC, 0.5 A, Solid state relay
TXN 102 30	Connector, screwless type, 20 pins, pitch 5.08
TXN 102 31	Connector, screw type, parallel direction, 20 pins, pitch 5.08
TXN 102 32	Connector, screw type, right angle, 20 pins, pitch 5.08



TXN 102 40



TXN 102 30



TXN 102 32