

TECOMAT TC700 –External output modules

Type	OR-0422	OR-0424	OR-0427	OS-0425	OS-0426	OS-0428
Number of outputs	8	16	8	16	16	16
Switching voltage max.	230 V AC	230 V AC	230 V AC	230 V DC	230 V AC	24 V DC
Switching current	3 A	3 A	16 A	0.5 A	3 A	50 mA
Type of output	Relay contact	Relay contact	Relay contact	Solid State Relay DC	Solid State Relay AC	Semiconductor DC
Connecting	Screw type terminal	Screw type terminal	Screw type terminal	Screw type terminal	Screw type terminal	Screw type terminal

Basic features

- External relay and solid state relay modules are designed as end terminals of high density I/O modules OS-7410, OS-7411 and IS-7510.
- External modules give wide choice of output elements for different loads and different contact configuration.
- Module with relays in sockets is available for easy relay replacement.
- Modules with solid state relay allow to reach high lifetime.
- Each output element on the external module has its own protection element (varistor)
- Status of each output is indicated by the LED on module.
- Other details are given in tables.

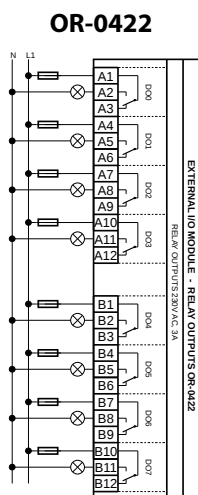
Connecting

- External output modules are interconnected with the TC700 modules in the rack by parallel cables KB-0211, KB-0212, KB-0213 with plug-in connectors.
- External modules are designed for mounting on DIN rail.
- Terminals of external modules are designed to be the last terminal in the control panel directly wired to the load.

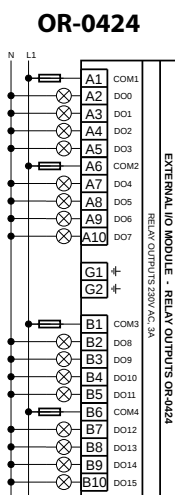
Use

- To switch on/off the loads of controlled process or machine at the 24 V DC or 230 V AC levels.
- External modules are usefull where high density of I/O modules in the rack has to be connected quickly and with minimum wiring inside the control panel.
- They are usefull when final switching element (relay, SSR) has to be accessible e.g. for later replacing.
- They give more variety in types of switching element driven by one type of output module in the rack.

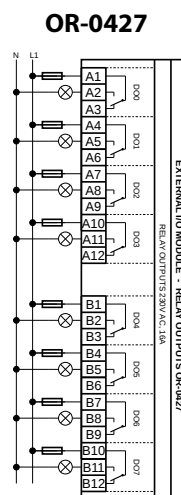
Connection examples



Conductors cross-section
max. 2,5 mm²

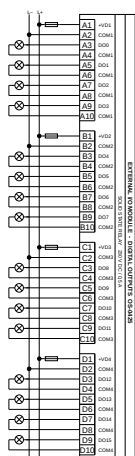


max. 2,5 mm²



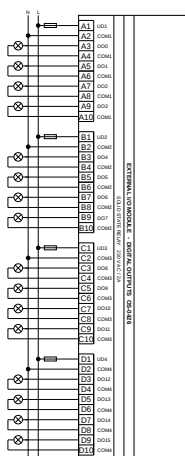
max. 2,5 mm²

OS-0425



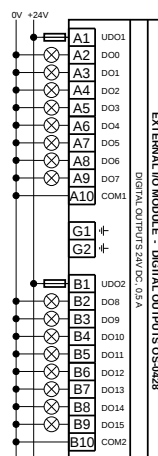
Conductors cross-section
max. 2,5 mm²

OS-0426



max. 2,5 mm²

OS-0428



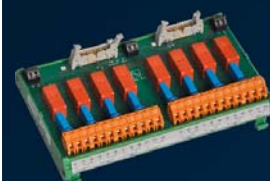
max. 2,5 mm²



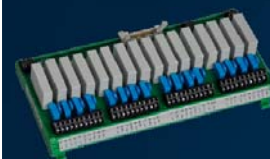
OR-0422



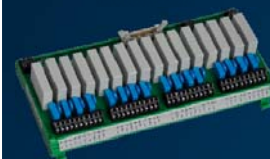
OR-0424



OR-0427



OS-0425



OS-0426



OS-0428

Binary outputs	OR-0422	OR-0424	OR-0427	OS-0425	OS-0426	OS-0428
No. of outputs / groups	8/ 8 independent contacts	16/ 4	8/ 8 independent contacts	16/ 4	16/ 4	16/ 2
Output status indication	Yes/ LED	Yes/ LED	Yes/ LED	Yes/ LED	Yes/ LED	Yes/ LED
Galvanic isolation	Yes, also among contacts	Yes	Yes, also among contacts	Yes	Yes	No GI is a part of TC700 module in the rack
Type of output	Relay contact (NO)	Relay contact (NO)	Relay contact 4x NO/NC	Solid State relay	Solid State relay (zero switching relay)	Solid State relay (protected output)
Common pole	No	Yes, for each group	No	Yes, for each group	Yes, for each group	Yes, for each group
Switching voltage	12 V – 250 V	12 V – 250 V	12 V – 250 V	1 V DC ÷ 300 V DC	12 V AC ÷ 265 V AC	11 V AC ÷ 30 V DC
Switching current	max. 3 A 6A/ short peak	max. 3 A, 6A/ short peak	max. 16 A	max. 0.5 A	max. 3 A	max. 0.5 A
Common pole current	N/ A	10 A	N/ A	max. 16 A	max. 16 A	max. 8 A
Leakage current	N/ A	N/ A	N/ A	<100 µA	<1 mA	<300 µA
Mechanic lifetime (operations)	5 000 000	5 000 000	5 000 000	N/ A	N/ A	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	400 000/ Resist. load 7 000/ DC13 inductive load 100 000/ AC13 inductive load	N/ A	N/ A	N/ A
Switch on/switch off period	5 ms/ 6 ms	5 ms/ 6 ms	5 ms/ 6 ms	100 µs / 250 µs	10 ms/ next crossing the zero	400 µs / 400 µs
Short-circuit protection	External	External	External	External	External	Internal
Overload protection	Yes, < 6,5A	Yes, thermal protection	Yes, thermal protection	No	No	Yes, thermal protection
Spike suppressor of inductive load	Internal varistor	Internal RC snubber	Internal RC snubber	Internal RC and varistor snubber	Internal RC and varistor snubber	External RC, diode or varistor snubber
Insulation voltage between inputs and internal circuits	3750 V AC	3750 V AC	3750 V AC	4000 V AC	4000 V AC	

Power supply	OR-0422	OR-0424	OR-0427	OS-0425	OS-0426	OS-0428
Power supply voltage	24 V DC/ 250mA	24 V DC/ 250mA	24 V DC/ 250mA	24 V DC	24 V DC/ 250 mA	24 V DC/ 350 mA
Power consumption	Max. 3 W	Max. 5.5 W	Max. 6.6 W	Max. 7 W	Max. 7 W	Max. 5.5 W
Module power dissipation	Max. 3 W	Max. 5.5 W	Typ 4.2 W	Max. 10 W	Max. 65 W	Max. 5.5W

Dimensions and weight	OR-0422	OR-0424	OR-0427	OS-0425	OS-0426	OS-0428
Dimensions	162 × 92 × 60 mm	162 × 92 × 54 mm	203 × 125 × 54 mm	247 × 125 × 54 mm	247 × 125 × 54 mm	143 × 125 × 54 mm
Weight	300 g	300 g	300 g	300 g	300 g	300 g

Order number	
TXN 104 22	OR-0422, 8 × RO, 230 V AC/ 4 A, Relays in sockets, individual contacts,
TXN 104 24	OR 0424, 2 × 8 RO, 230 V AC/ 4 A, Relays with output protection with RC, grouped contacts
TXN 104 25	OS-0425, 16 × DO, 230 V DC/ 0.5 A, SSR DC, with output protection, direct connection of the load
TXN 104 26	OS-0426, 16 × DO, 230 V AC/ 2 A SSR AC, with output protection, direct connection of the load
TXN 104 27	OR-0427, 8 × RO, 230 V AC/ 16 A, Relays with output protection, individual contacts
TXN 104 28	OS-0428, 16 × DO, 24 V DC/ 50 mA, SSR DC with output protection, grouped contacts
TXN 102 11.04	KB-0211 cable for external I/ O modules, 20 pin/ 20 pin, shielded – (faston 2.8), 1m
TXN 102 12.04	KB-0212 cable for external I/ O modules, 20 pin/ 20 pin, unshielded 1m
TXN 102 13.04	KB-0213 cable for external I/ O modules, 20 pin/ free end, shieldes-(faston 2.8), 1m



KB-0211
KB-0212
KB-0213