

TECOMAT TC700 – Binary input modules

Type	IB-7302	IB-7303	IB-7305	IB-7310	IB-7311
Binary inputs	32	16	16	64	32
Input voltage	24 V DC	24 V DC/AC	230 V AC	24 V DC	24 V DC
Connection	2 × 20 pin Screwless connector	20 pin Screw type connector Screwless connector	20 pin Screw type connector Screwless connector	4 × 20 pin DIN 41651 Flat Cable Connector	2 × 20 pin DIN 41651 Flat Cable Connector

Basic features

- Expansion modules with 16 up to 64 binary inputs for enlarging number of I/O of the TC700 configuration.
- Inputs are organized in groups with common wire.
- Galvanic isolation of inputs 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.
- IB-7303 module allows to invoke an interrupt from input (HW interrupt)
- Other details are given in tables.

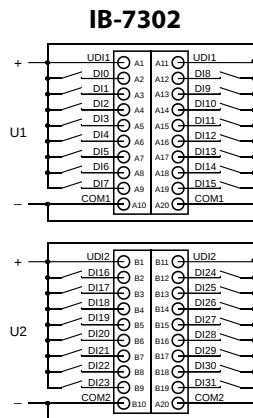
Connecting

- Front end connectors are ordered separately since user can choose the screw/screwless one.
- The high density modules IB-7310 and IB-7311 has to be connected through the cable to external input modules with additional protection elements.
- 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 output circuits must be supplied by external power supply.

Use

- Modules are used to connect binary, logic, input signals and provide galvanic isolation and filtering of breakdowns.

Connection examples

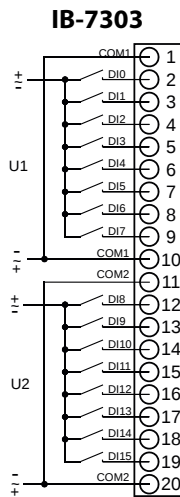


Connector

2x 20pin
Screwless connector
TXN 102 40

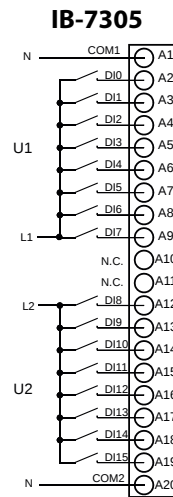
Conductors cross-section

max. 1 mm²



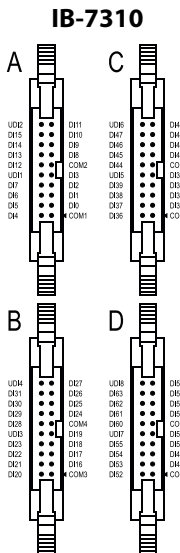
20pin
Screw-type connector/
Screwless connector
TXN 102 3x

max. 2.5 mm²



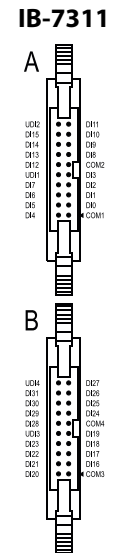
20pin
Screw type connector/
Screwless connector
TXN 102 3x

max. 2.5 mm²



Connector

4x20pin DIN 41651
Flat Cable Connector



2x20pin DIN 41651
Flat Cable Connector



IB-7302



IB-7303



IB-7305



IB-7310

Binary inputs	IB-7302	IB-7303	IB-7305	IB-7310	IB-7311
No. of inputs / groups	32/ 4	16/ 2	16/ 2	64/ 8	32/ 4
Type of input according to IEC EN 61131-2	Type 1	Type 1	Type 1	Type 3	Type 3
Common wire	Minus	Minus, plus	-	Minus	Minus
Input voltage	24 V DC	24 V AC/ DC	230 V AC, 50/ 60 Hz	24 V DC	24 V DC
Input current at log. 1	max. 3 mA	max. 5 mA	max. 10 mA	max. 3 mA	max. 3 mA
Time of open/close the input	5 ms/ 5 ms	0.5 ms/ 0.5 ms	10 ms/ 10 ms	5 ms/ 5 ms	5 ms/ 5 ms
Galvanic isolation	Yes	Yes	Yes	Yes	Yes
External supply voltage of module input circuits	24 V DC	24 V DC	-	24 V DC	24 V DC
Max. power consumption from external source (1 group)	60 mA	50 mA	-	30 mA	30 mA
Insulation voltage among inputs and internal circuits	500 V DC	500 V AC/ DC	3750 V AC	500 V DC	500 V DC
Insulation voltage among groups of inputs	500 V DC	500 V AC/ DC	2500 V AC	500 V DC	500 V DC

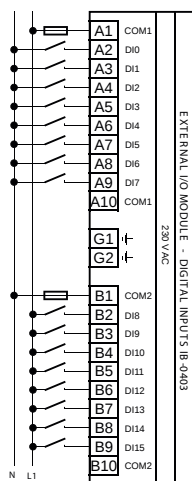
Power supply	IB-7302	IB-7303	IB-7305	IB-7310	IB-7311
Power supply voltage (SELV)	Internal 24 V from the rack	Internal 24 V from the rack	Internal 24 V from the rack	Internal 24 V from the rack	Internal 24 V from the rack
Module power loss	4 W	4 W	6 W	8 W	5 W
Power consumption	1.8 W	1 W	0.8 W	1.5 W	1.5 W

Dimensions and weight	IB-7302	IB-7303	IB-7305	IB-7310	IB-7311
Dimensions	137 × 30 × 198 mm	137 × 30 × 198 mm	137 × 30 × 198 mm	137 × 30 × 198 mm	137 × 30 × 198 mm
Weight	300 g	300 g	300 g	300 g	300 g

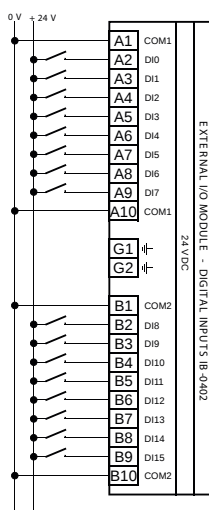
Order number	
TXN 173 02	IB-7302 32 inputs 24 V DC/ 5 ms, common minus pole for group of 16 inputs
TXN 173 03	IB-7303 16 inputs 24 V DC/ AC, 0.5 ms, interrupt, common pole for group of 8 inputs
TXN 173 05	IB-7305 16 inputs 230 V AC, 10 ms
TXN 173 10	IB-7310 64 DI GI, 24 V, 5 ms, basic module for external modules IB-04xx
TXN 173 11	IB-7311 32 DI GI, 24 V, 5 ms, basic module for external modules IB-04xx
TXN 102 30	Connector, screwless type, 20 pins, pitch 5.08 mm
TXN 102 31	Connector, screw type, parallel, 20 pins, pitch 5.08 mm
TXN 102 32	Connector, screw type, right angle, 20 pins, pitch 5.08 mm
TXN 102 40	2 connectors, screwless type, 20 pins, pitch 3.5 mm
TXN 102 45	4 IDC connectors according to DIN41651 for flat cables, 20 pins

Connection

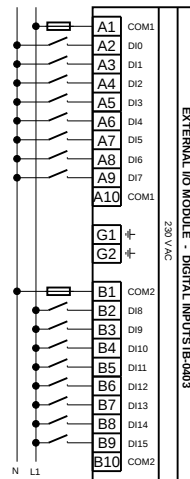
IB-0401



IB-0402



IB-0403



Conductors cross-section

Max. 2.5mm²

Max. 2.5mm²

Max. 2.5mm²



IB-7311



TXN 102 40



TXN 102 30



TXN 102 32



KB-0211
KB-0212
KB-0213