

IL2301-B518 | Coupler Box, 4-channel digital input + 4-channel digital output, CANopen, 24 V DC, 3 ms, 0.5 A, M8, integrated T-connector



i Product status: regular delivery

The IL2301-Bxxx Coupler Box module combines four digital inputs and four digital outputs in one device. The outputs handle load currents of up to 0.5 A, are short-circuit proof and protected against inverse polarity. The state of each signal is indicated by means of light emitting diodes. The signals are connected via M8 screw type connectors.

Product information

Technical data

System data	CANopen IPxxxx-B51x, IL230x-B51x
Number of I/O stations	63, with repeater: 99
Number of I/O points	depending on controller
Data transfer medium	shielded copper cable, 2 x signal, 1 x CAN ground (recommended)
Distance between stations	5,000 m 2,500 m 1,000 m 500 m 250 m 100 m 50 m 25 m
Data transfer rates	10 kbaud 20 kbaud 50 kbaud 125 kbaud 250 kbaud 500 kbaud 800 kbaud 1 Mbaud
I/O communication types	event driven, cyclic, synchron, polling

Technical data digital inputs/outputs	IL2301-Bxxx
Specification	EN 61131-2, type 2

Number of channels	4 inputs + 4 outputs
Input/output connections	M8, screw type
Input filter	3.0 ms
"0" signal voltage	-3...+5 V
"1" signal voltage	11...30 V, 6 mA input current (EN 61131-2, type 2)
Sensor supply	from control voltage, max. 0.5 A, short-circuit proof in total
Load type	ohmic, inductive, lamp load
Rated load voltage	24 V DC (-15 %/+20 %)
Max. output current	0.5 A per channel, individually short-circuit proof
Short-circuit current	typ. 1.5 A
Auxiliary power current	typ. 20 mA
Current consumption from Us	see documentation
Power supply connection	feed: 1 x M8 male socket, 4-pin; downstream connection: 1 x M8 female socket, 4-pin
Bit width in the process image	4 inputs + 4 outputs
Electrical isolation	channels/control voltage: no, between the channels: no, control voltage/fieldbus: depends on the bus system
Special features	IP-Link coupler
Operating/storage temperature	0...+55 °C/-25...+85 °C
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. rating/installation pos.	IP65/66/67 (conforms to EN 60529)/variable
Approvals/markings	CE, UL

Technical data	IL2301-B518
Extension modules	max. 120 with max. 128 byte input and 128 byte output data
Digital peripheral signals	max. 960 inputs and 960 outputs
Analog peripheral signals	max. 60 inputs and 60 outputs
Number of PDOs (CANopen)	16 send and 16 receive process data objects
Additional CANopen features	life, node guarding, emergency object, variable mapping, store/restore
Configuration possibility	through KS2000 or the controller (service data objects)
Data transfer rates	automatic detection of 10 kbaud up to 1 Mbaud
Bus interface	1 x M12 plug, 5-pin, 1 x M12 socket, 5-pin (tee-connector integrated)
Power supply	control voltage: 24 V DC (-15 %/+20 %); load voltage: according to I/O type
Power supply connection	feed: 1 x M8 male socket, 4-pin; downstream connection: 1 x M8 female socket, 4-pin
Box supply current	45 mA + current consumption of sensors, max. 0.5 A

Electrical isolation	control voltage/fieldbus: 500 V, control voltage/inputs or outputs: according to I/O type
Operating/storage temperature	0...+55 °C/-25...+85 °C
Vibration/shock resistance	conforms to EN 60068-2-6/EN 60068-2-27
EMC immunity/emission	conforms to EN 61000-6-2/EN 61000-6-4
Protect. rating/installation pos.	IP65/66/67 (conforms to EN 60529)/variable
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Housing data	XXL housing
Dimensions (W x H x D)	30 mm x 210 mm x 26.5 mm
Material	PA6 (polyamide)
Installation	2 fixing holes 3.5 mm diameter for M3

Accessories

Accessories	
ZK1020-0101-0xxx	pre-assembled IP-Link cable, drag-chain suitable
ZK2000-2100-0xxx	M8, plug, straight, male, 3-pin – open end
ZK2000-2122-0xxx	M8, plug, straight, male, 3-pin – M8, socket, straight, female, 3-pin
ZK2020-3200-0xxx	M8, socket, straight, female, 4-pin – open end
ZK2020-3132-0xxx	M8, plug, straight, male, 4-pin – M8, socket, straight, female, 4-pin
ZS1020-0010	IP-Link plug, 1 piece, plug for IP-Link system
ZS2000-2210	Plug field assembly, Sensor, IP65/67, M8, straight, male, 3-pin, A-coded, 0.14...0.5 mm ² , Ø 4...5.5 mm
ZS2000-1213	Plug field assembly, Sensor, IP67, M8, straight, male, 3-pin, A-coded, 0.14...0.34 mm ² , Ø 3.5...5 mm
ZS2000-2310	Plug field assembly, Sensor and Power, IP65/67, M8, straight, male, 4-pin, A-coded, 0.14...0.5 mm ² , Ø 4...5.5 mm
ZS2000-2320	Socket field assembly, Sensor and Power, IP65/67, M8, straight, female, 4-pin, A-coded, 0.14...0.5 mm ² , Ø 4...5.5 mm
ZS5300-0011	Mounting plate for 14 small or 7 wide EtherCAT-/ EtherCAT P box modules, stainless steel, 500 mm x 130 mm x 1.5 mm
ZS5000-0014	blanking plug, plastic (IP65/67), for M8 socket, green, packaging unit = 50 pieces
ZS5000-0010	blanking plug, plastic (IP67), for M8 socket, packaging unit = 50 pieces
ZB8801-0000	torque wrench for hexagonal plugs, adjustable
ZB8801-0001	torque cable key, M8/wrench size 9, for ZB8801-0000