

Beckhoff — IL Coupler Box Units

IL2301-B901-0000 **In-Stock, Ships Today**

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The **IL2301-B901-0000** is an I/O coupler produced by Beckhoff for the IL Coupler Box Units series. Installed on machines or conveyors, it acts as a decentralized node for industrial automation. It collects sensor states and drives actuators through a single Ethernet backbone, reducing cabinet wiring.

The unit communicates over **Ethernet TCP/IP**, so it connects directly to standard plant networks. All internal electronics are powered by a control voltage of **24 V DC**. Four optically isolated channels accept signals from switches or proximity sensors, giving the station **4 digital inputs**. Another four channels use sourcing transistor stages to provide **4 digital outputs** for small solenoids or indicator lamps. Additional functions can be connected through the high-speed **IP-Link** interface on the device end plate. A D-coded M12 female connector serves as the fieldbus port, while separate M8 connectors supply and daisy-chain auxiliary 24 V power. The housing components are molded from flame-retardant PA6. An internal polyurethane potting compound improves vibration resistance and seals the circuitry.

The coupler can address up to **120 extension modules** across the connected IP-Link string without losing update speed. During each cycle, the controller exchanges **512 bytes in and 512 bytes out** with its host, supporting bit-level diagnostics and analog words in the same telegram. The output stages draw no more than **0.5 A** of control current, which is compatible with common Class 2 power sources. The cast polymer housing has an ingress protection rating of **IP65/66/67**, allowing direct mounting on machines exposed to coolant, dust, or washdown spray. Wiring to sensors and actuators is secured by an M8 bolted signal connection. A single four-pin M8 plug

supplies power to the unit, while a matching socket forwards the supply voltage to the next device.

Specifications

"0" Signal Voltage:	-3...+5 V	"1" Signal Voltage:	11...30 V, 6 mA input current	Approvals:	CE, UL
Bus Interface:	Ethernet TCP/IP	Control Voltage:	24 VDC	Data Transfer Rates:	10/100 Mbit/s, automatic recognition
Digital Inputs:	4	Digital Outputs:	4	Extension Interface:	IP-Link
Fast Modbus tcp:	Supported	Fieldbus Connector:	1 x M12 d-coded female	Input Filter:	3.0 ms
Input/output Connections:	M8, screw type	Load Type:	Ohmic, inductive, lamp load	Material:	PA6
Max Control Current:	0.5 A	Max Extension Modules:	120	Max. Output Current:	0.5 A per channel, individually short-circuit proof
Number Of Channels:	4 inputs + 4 outputs	Operating Temperature:	0...55°C	Potting Material:	Polyurethane
Power Feed:	1 x M8 4-pin	Power Out:	1 x M8 4-pin socket	Process Data:	512 bytes in / 512 bytes out
Protection Class:	IP65/66/67	Protection Rating:	IP65/66/67 (conforms to EN 60529)	Rated Load Voltage:	24 V DC (-15%/+20%)
Sensor Supply:	From control voltage, max. 0.5 A, short-circuit proof	Signal Connection:	M8 bolted	Storage Temperature:	-25...+85°C
Weight:	Approx. 250 g	Last Verified:	10/24/2026 9:57 AM		

Contact Us

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