



## IOLB-8318

Part Number: 99657-6



IO-LINK BLOCK

### KEY FEATURES AND BENEFITS

- 8 point Digital Input/Output IO-Link Block (Class B)
- 4 - M12 connectors
- Input/Output either voltage or current
- IP65/66/67
- Parameterization using IO-Link for easy installation and configuration
- Data Storage capable for easy device replacement
- IODD files

### PRODUCT DESCRIPTION

The IOLB-8318 has eight Digital Points, each of which can be operated as an Input or as an Output and is connected to an IO-Link Master. Each Point is configurable in that it can be used either as an Input or Output; the input circuit is internally connected to the output driver, so that a set output is displayed automatically in the input process image.

The outputs handle load currents of up to 0.5A, and although the total current is limited to 4A, they are short-circuit proof and protected against inverse polarity. The state of each signal is indicated with LEDs. The signals are connected via M12 connectors.

The small IOLB-8318 form factor means that it is suitable for use where space is at a premium. The small mass of the IOLB-8318 module facilitates applications with mobile I/O interface, for example, a robot arm.

The robust design of the IOLB-8318 module enables them to be used directly at the machine. Control cabinets and terminal boxes are now no longer required. The module is fully sealed and therefore ideally prepared for wet, dirty or dusty conditions (IP67).

Pre-assembled cables significantly simplify IO-Link and signal wiring. Very few wiring errors are made, so that commissioning is optimized. In addition to pre-assembled IO-Link, power and sensor cables, field-configurable connectors and cables are available for maximum flexibility. Sensors and actuators are connected through the M12 connectors.

# IO-LINK BLOCK SPECIFICATIONS

## HARDWARE

Communication Interface	IO-Link
Enclosure	
Industrial housing PA6 (polyamide)	
Ingress Protection Rating	
IP65, IP66, IP67 (conforms to EN 60529)	
Ports	
1 – IO-Link Class B	
8 – Digital Inputs or Outputs	
Connector Type (IO-Link)	
M12, 5-poles, A-coded (Male)	
Connector Type (Digital Input/Output)	
M12, 5-poles, A-coded (Female)	
Connector Contacts	Plated CuZn
Mounting Method	Machine or panel mount
Mounting Mechanism	
Two mounting holes on the product for M3 screws	
LED Indicators	
IO-Link Communication status, Power Input L+, Power Input 2L+, Digital Input / Output Signal status	
Dimensions (L x W x H)	126 x 30 x 26.5 mm 5" x 1.2" x 1"
Product Weight	160 g 5.6 oz
Shipping Weight	180 g 6.4 oz

## ELECTRICAL SPECIFICATIONS

Operating Voltage	18 – 30VDC
Nominal Voltage	24VDC
Supply for Module Electronics	
L+ (Pin 1, 3 on IO-Link Connector X1)	
Output Driver Supply	
2L+ (Pin 2, 5 on IO-Link Connector X1) – See Port Class B Wiring	
Electrical Isolation	Yes (between L+ and 2L+)
Current Consumption (Module Electronics)	100mA from L+

## IO-LINK COMMUNICATION SPECIFICATIONS

Communication	IO-Link
Operating Mode	COM3 (230.4 Kbps)
Standard	
IEC61131-9 (IO-Link v1.1 Class B)	
IO-Link Device ID	
8318 (decimal)	
00 20 7E (hex)	
IO-Link Connector	1 x M12, 5-poles, A-coded
Specification Version	IO-Link V1.1
IODD Files	Yes
Features	Data storage
Process Data Input (PDI)	1 Byte
Process Data Output (PDO)	1 Byte
Process Image	
8 Input bits	
8 Output bits	

## DIGITAL INPUT SPECIFICATIONS

Number of Inputs	8
Input Connectors	
4 x M12, 5-poles, A-coded (Female)	
Input Filter (Adjustable)	
3.0 ms (default)	
Adjustable between 0 ms and 20 ms	
Input Signal Extension Time (Adjustable)	
0 ms (default),	
Adjustable between 0 ms and 100 ms	
"0" Signal Voltage	
-3 to +5V (EN 61131-2, Type 3)	
"1" Signal Voltage	
+11 to +30V (EN 61131-2, Type 3)	
Input Current	
Typically 3mA (EN 61131-2, Type 3)	
Sensor Supply	
US1 (derived from L+)	

## DIGITAL OUTPUT SPECIFICATIONS

Number Of Outputs	8
Output Connectors	
4 x M12, 5-poles, A-coded (Female)	
Output Load Type	
Ohmic, inductive, lamp load	
Rated Output Load Voltage	24VDC (-15%/+20%)
Load Output Current	max. 0.5A each channel
Short Circuit Current	max. 1.5A
Output Driver Current Consumption	typically 20mA
Output Driver Supply	2L+

## ENVIRONMENTAL SPECIFICATIONS

Operating temperature	-25°C to +60°C
Storage temperature	-40°C to +85°C
Operating humidity	10% to 95%
Storage humidity	10% to 95%
Shock and Vibrations	EN 60068-2-6 EN 60068-2-27

## REGULATORY APPROVALS

Emissions	
EN 61000-6-4	
International Standard IEC 61000-6-4	
Immunity	
EN61000-6-2	
International Standard IEC 61000-6-2	
Safety Approvals	UL508
Other	
IP65, IP66, IP67 (conforms to EN 60529)	
2011/65/EU (RoHS2) Directive	
Approvals	CE, UL, RoHS2

## PORT CLASS B WIRING

<b>IOLB-8318 with Port Class A IO-Link Master</b>
IP67: Requires a Y-splitter to supply Ua power to the device
IP20: Wire pins 1, 3, and 4 to the Class A IO-Link Master and wire pins 2,5 to Ua power source
<b>IOLB-8318 with Port Class B IO-Link Master</b>
IP67: Connect a M12 cable to both the device and the IO-Link Master.
<b>Ua Power Source</b>
Shall be supplied from a power supply isolated from Us and may or may not be switched through a safety circuit.



### Warranty Information

Control offers a 30-day satisfaction guarantee and 5-year limited warranty.

### Sales Support

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### Technical Support

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