COMTROL
Pepperl+Fuchs

IOLB-7214

Part Number: 99643-9

KEY FEATURES AND BENEFITS

- 4 channel Analog Input/Output IO-Link Block (Class B)
- 4 - M12 connectors
- Provides user scale and input filters
- Input and 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-7214 features two analog inputs and two analog outputs, which can be parameterized individually. Signals range from -10V to +10V or from 0/4 to 20mA and can be processed or generated. The resolution for the current and voltage signals is 16 bit (signed). For the outputs the voltage or output current is fed to the process level, electrically isolated with a resolution of 15 bit (default).

The IOLB-7214 is intended to be connected directly to an IO-Link Master. The small IOLB-7214 form factor (H126 x W30 x D26.5 mm) means that they are suitable for use where space is at a premium. The small mass of the IOLB-7214 module facilitates applications with mobile I/O interface, for example, a robot arm.

The robust design of the IOLB-7214 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 M12 connectors.

connect. communicate. control.

IO-LINK BLOCK SPECIFICATIONS

HARDWARE

Communication Interface	IO-Link
Enclosure	
Industrial housing PA6 (polyamide)	
Ingress Protection Rating	
IP65, IP66, IP67 (conforms to EN 60529)	
Connectors	
1 – IO-Link	
2 – Analog Inputs	
2 – Analog Outputs	
Connector type (IO-Link)	
M12, 5-poles, A-coded (male)	
Connector type (Analog inputs)	
M12, 4-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+, Analog Input /Output status	
Dimensions (L x W x H)	126 x 30 x 26.5 mm
	5" x 1.2" x 1"
Weight	180g
	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)	
Supply of sensors	
2L+ (Pin 2, 5 on IO-Link Connector X1)	
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 Device ID	
7214 (decimal)	
00 1C 2E (hex)	
IO-Link Connector	1 x M12, 5-poles, A-coded
Specification Version	IO-Link V1.1 Class B
IODD Files	Yes
Features	Data storage
Process Data Input (PDI)	16 Bytes
Process Data Output (PDO)	16 Bytes
Process Image	Inputs: 2 x 16 bit
	Outputs: 2 x 16 bit

ANALOG INPUT SPECIFICATIONS

Number of Analog Inputs	2
Input Connectors	
2 x M12, 5-pole, A-coded socket	
Input Types	Configurable:
	• 0 V ... + 10 V
	• -10 V ... + 10V
	• 0 mA ... 20 mA
	• 4 mA ... 20 mA
Internal Resistance	
> 200K ohms (typ. 85 Ω + diode voltage)	
Resolution	16 bits (incl. Sign)
Input Filter	Configurable
Input filter cut-off frequency	5 kHz
Conversion time	~ 100 microseconds
Measurement Error	
<± 0.3% (relative to the full-scale value)	
Common mode voltage UCM	Max. 35 V

ANALOG OUTPUT SPECIFICATIONS

Number of Analog Outputs	2
Output Connectors	
2 x M12, 5-pole, A-coded socket	
Output Types	Configurable:
	• 0 V ... + 10 V
	• -10 V ... + 10V
	• 0 mA ... 20 mA
	• 4 mA ... 20 mA
Resolution	16 bits (incl. Sign)
Common mode voltage UCM	Max. 35 V

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