

IO-Link Hubs

Analog & Digital

 **MURR**
ELEKTRONIK
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IO-LINK HUBS

Experience the future of industrial automation with our multi-functional IO-Link hubs. Choose between different DIO models with up to 16 digital channels or AI models with 4 analog channels. Connect up to 128 sensor and actuators to a single IO-Link master using only standard sensor cables.



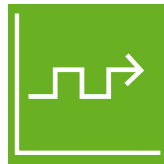
COM3 & IO-Link
V1.1.3



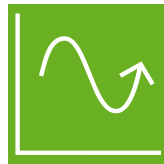
Plug & Play
Versions



DIOs with auto-
configuration



Digital signals



Analog signals

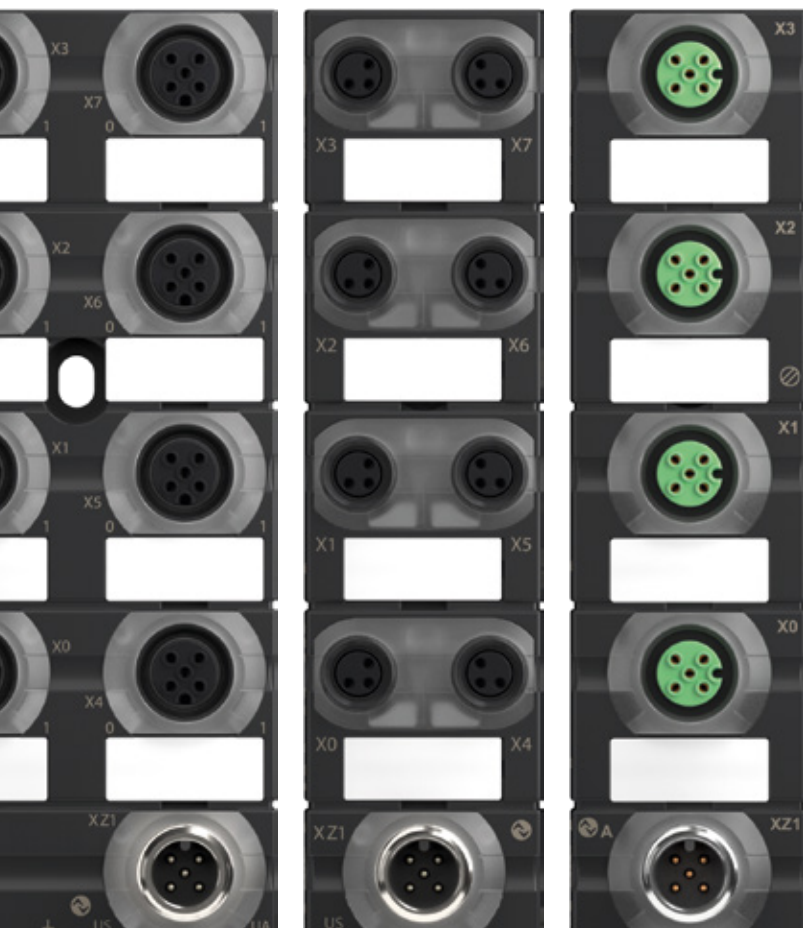


Passive Safety
(PLd for DOs)



Live Data
Monitoring

IO-Link



- **DIO functionality with auto-configuration**
Simplify your installation process and save time when installing and replacing modules
- **IO-Link hubs for sensors with analog interface**
Available for current, voltage and temperature sensors
- **Plug and Play B0 Models**
With preset configurations
- **E0 Extended Models**
Extended configuration and diagnostic options for maximum flexibility,
Module identification via process data
- **Extended channel diagnostics**
More in-depth diagnostic information when connected to IO-Link master from Murrelektronik

PLUG & PLAY (B0) VS. EXTENDED (E0) HUB MODELS

All digital MVP8 and MVP12 IO-Link hubs are available in two different styles.

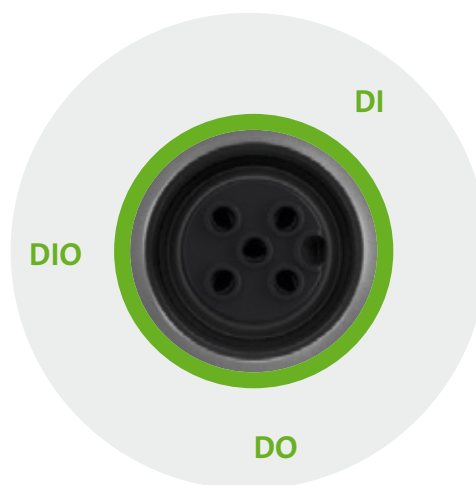
	B0 – Plug & Play	E0 – Extended
DIO auto-configuration: Channels operate in DI or DO mode based on PLC logic	✓	✓
IO-Link standard configuration, events, BLOB transfer, common profile I&D	✓	✓
I/O process data (2 byte)	✓	✓
Diagnostic process data bits (1 byte): Detected errors are mapped into the process data	✗	✓
Module identification process data bits (1 byte): Helpful for tool change applications	✗	✓
Various bitmapping layouts: Adaptable to other master provider formats	✗	✓
Manual channel configuration: If the channel is to be used as a fixed DI or DO	✗	✓
Extensive device / channel configuration options: Failsafe behavior, filter times, ...	✗	✓

DIO auto-configuration

Often you don't know the exact number of digital inputs and outputs in a location – this makes it difficult to decide on the ideal IO-Link hub early on!

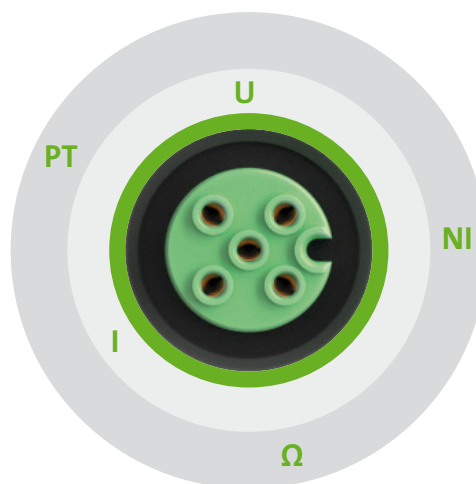
With auto-configurable DIO our IO-Link hubs simplify the specification process completely.

Auto-configuration mode digital channels eliminates the need for configuring each channels – the channels work as DI or DO based on PLC logic. You only just use the process data – read for DI, write for DO, done!



Functional configuration for analog hubs

Functional configuration allows the configuration of analog IO-Link hubs in the simplest possible way via process data – even during operation.



IO-Link Features

- Developed according to IO-Link V1.1.3
- Common Profile Identification and Diagnosis (I & D) supports manufacturer-independent, standardized identification and diagnostics
- Firmware updates via standardized IO-Link BLOB transfer
- IO-Link event support

DIO Ports

- DI and DIO modules available with M8 or M12 ports
- Up to 16 DIO channels with outputs rated at 0.5 A (Class A), 2 A (Class B) or even 4 A (Additional M12-L connections for auxiliary power)
- True DIO functionality (autoconfiguration) for universal use
- Common GND modules for maximum flexibility (DI over US, DO over UA – independent of the used channel/port)

Power connector

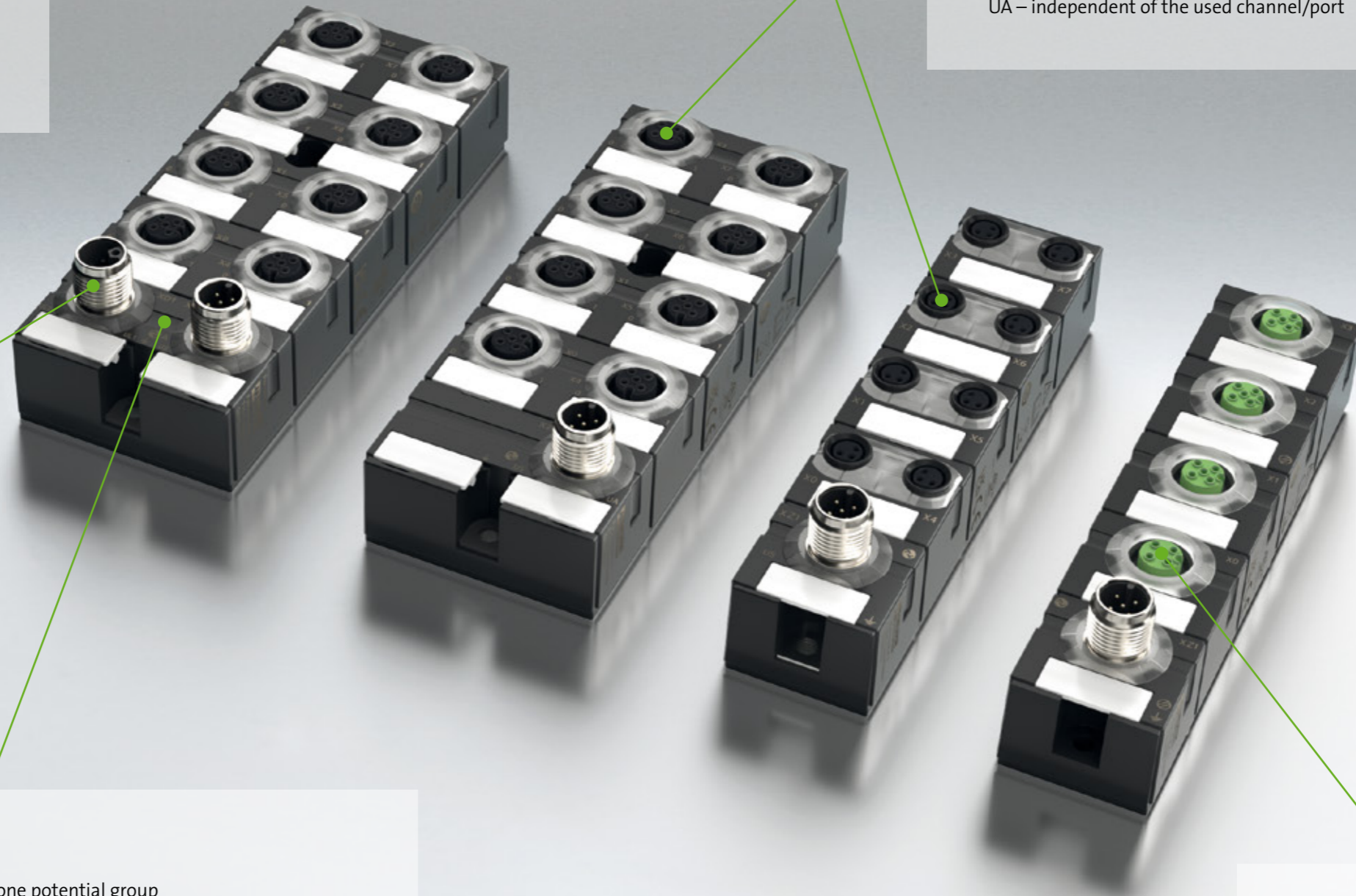
- IO-Link Class A hubs with two electrically isolated potential groups and M12 L-coded power connection

IO-Link connection

- IO-Link Class A hubs with one potential group
- IO-Link Class B hubs with two galvanic separated potential groups
- IO-Link Class B hubs with common GND
- Connection for faster data exchange – 1 ms cycle time
- LEDs for visual feedback during commissioning and troubleshooting

AI Ports

- AI Multi modules for voltage and current signals
- RTD modules for measuring temperature (PT, Ni and resistance)



ORDERING DATA

Digital M12 IO-Link hubs, 50mm, plastic housing, IP68 Plug and Play B0 Models



Description	MVP12-P6 DI16 8xM12A IO-Link B0	MVP12-P6 DIO16CGND 8xM12A IOL_12 B0	MVP12-P6 DIO16 8xM12A IO-Link B0	MVP12-P6 DIO8 DIO8 8xM12A IO-Link B0	MVP12-P6 DIO8 DIO8 8xM12A IO-Link PL4 B0	MVP12-P6 DIO8 DIO8 8xM12A IO-Link PL5 B0	
Article number	59710	59712	59719	59718	59728	59738	
IO-Link Device	Class A			Class B	Class A		
IO-Link connection XZ1	1 x M12, 5-pole A-coded						
IO-Link and functions	COM3, developed according to IO-Link V.1.1.3, Common Profile Identification & diagnostic (I&D), firmware update via BLOB transfer B0: Plug & Play						
I/O Function	X0...X7:	DI16	DIO16	DIO16	–	–	–
	X0...X3:	–	–	–	DIO8 (P24)	DIO8 (UL2)	DIO8 (UL2)
	X4...X7:	–	–	–	DIO8 (L+)	DIO8 (UL1)	DIO8 (UL1)
Input	Type 1 & Type 3 according to EN61131-2						
Sensor supply	0.5 A per port from L+, short-circuit proof			0.5 A per port from L+ or P24, short-circuit proof	0.5 A per port from UL1 or UL2, short-circuit proof		
Output	0.5 A per channel from L+			2 A per channel from L+ or P24	2 A per channel from UL1 or UL2		
I/O Connections	8 x M12, 5-pole A-coded						
Feed	from XZ1: L+			from XZ1; L+ and P24	from XD1: UL1/UL2 M12L 4-pole	from XD1: UL1/UL2 M12L 5-pole	
Galvanic isolation	No			Yes, L+ zu P24	Yes, between IO-Link and UL1 and UL2		
Temperature range	-25 °C to 70 °C						
Dimensions	126 x 50 x 34,5 mm						

Digital M12 IO-Link Hubs, 50mm, plastic housing, IP68, E0 Extended Models



Description	MVP12-P6 DI16 8xM12A IO-Link E0	MVP12-P6 DIO16CGND 8xM12A IOL_12 E0	MVP12-P6 DIO16 8xM12A IO-Link E0	MVP12-P6 DIO8 DIO8 8xM12A IO-Link E0	MVP12-P6 DIO8 DIO8 8xM12A IO-Link PL4 E0	MVP12-P6 DIO8 DIO8 8xM12A IO-Link PL5 E0	
Article number	59810	59812	59819	59818	59828	59838	
IO-Link Device	Class A			Class B	Class A		
IO-Link connection XZ1	1 x M12, 5-pole A-coded						
IO-Link and functions	COM3, developed according to IO-Link V.1.1.3, Common Profile Identification & diagnostic (I&D), firmware update via BLOB transfer E0: Extended functions, port and channel parameters, identification and diagnostics via process data						
I/O Function	X0...X7:	DI16	DIO16	DIO16	–	–	–
	X0...X3:	–	–	–	DIO8 (P24)	DIO8 (UL2)	DIO8 (UL2)
	X4...X7:	–	–	–	DIO8 (L+)	DIO8 (UL1)	DIO8 (UL1)
Input	Type 1 & Type 3 according to EN61131-2						
Sensor supply	0.5 A per port from L+, short-circuit proof			0.5 A per port from L+ or P24, short-circuit proof	0.5 A per port from UL1 or UL2, short-circuit proof		
Output	–	0.5 A per channel from L+		2 A per channel from L+ or P24	2A per channel from UL1 or UL2 4A possible at pin4 of X0, X2, X4 and X6		
I/O Connections	8 x M12, 5-pin, A-coded						
Feed	from L+			from L+ and P24	M12L 4-pole	M12L 5-pole	
Galvanic isolation	No			Yes, L+ to P24	Yes, between IO-Link and UL1 and UL2		
Temperature range	-25 °C to 70 °C						
Dimensions	126 x 50 x 34,5mm						

Analog M12 IO-Link Hubs, 50mm, plastic housing, IP68 E0 Extended Models



Description		MVP12-P3 AI-MULT4 4xM12A IOLA12 E0	MVP12-P3 AI-RTD4 4xM12A IOLA12 E0
Article number		59840	59841
IO-Link Device		Class A	
IO-Link connection XZ1		1 x M12, 5-pole A-coded	
IO-Link and functions		COM3, developed according to IO-Link V.1.1.3, Common Profile Identification & diagnostic (I&D), firmware update via BLOB transfer E0: Extended functions, port and channel parameters, parameterization, identification and diagnostics via process data	
I/O Function	X0...X3:	Analog Input U/I	Analog Input RTD
Input		0...20 mA, 4...20 mA, 0...5 V, -5...5 V, 0...10 V, -10 V...10 V	PT100Climate, PT100, PT200, PT500, PT1000, NI100, NI120, NI200, NI500, NI1000 and resistance 0...3000 Ohm
Sensor supply		0.2 A per port from L+, short-circuit proof	None
I/O Connections		4 x M12, 5-pole A-coded	
Feed		from XZ1: L+	
Galvanic isolation		No	
Temperature range		-25 °C to 70 °C	
Dimensions		126 x 30 x 34,5 mm	

Digital M8 IO-Link Hubs, 30mm, plastic housing, IP68 Plug and Play B0 Models and E0 Extended Models



Description		MVP8-P3 DIO8 8xM8-3 IOLA12 B0	MVP8-P3 DIO8 8xM8-3 IOLA12 E0	MVP8-P3 DIO4 DIO4 8xM8-3 IOLB12 B0	MVP8-P3 DIO4 DIO4 8xM8-3 IOLB12 E0
Article number		59507	59607	59504	59604
IO-Link Device		Class A		Class B	
IO-Link connection XZ1		1x M12, 5-pin A-coded			
IO-Link and functions		COM3, developed according to IO-Link V.1.1.3, Common Profile Identification & diagnostic (I&D), firmware update via BLOB transfer			
		B0: Plug and Play	E0: Extended functions, port and channel parameters, identification and diagnostics via process data	B0: Plug and Play	E0: Extended functions, port and channel parameters, identification and diagnostics via process data
I/O Function	X0...X7:	DIO8		-	
	X0...X3:	-		DIO4 (P24)	
	X4...X7:	-		DIO4 (L+)	
Input		Type 1 & Type 3 according to EN61131-2			
Sensor supply		0.5 A per port from L+, short-circuit proof	0.5 A per port from L+ or P24, short-circuit proof	0.5 A per port from L+, short-circuit proof	0.5 A per port from L+ or P24, short-circuit proof
Output		0.5 A per channel from L+	2 A per channel from L+ or P24	0.5 A per channel from L+	2 A per channel from L+ or P24
I/O Connections		8 x M8, 3-pole			
Feed		from XZ1: L+	from XZ1: L+ und P24	from XZ1: L+	from XZ1: L+ und P24
Galvanic isolation		No	Yes	No	Yes
Temperature range		-25 °C to 70 °C			
Dimensions		126 x 30 x 34,5 mm			





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