

Active Distributor ASi-5/IO-Link Master, IP67, M12

Active Distributor ASi-5/IO-Link Master with 1 Port, IP67, M12

New standard ASi-5

IO-Link port class A

Power supply of IO-Link ports out of ASi

Periphery connection via M12 cable sockets, straight, 5 poles



(figure similar)



Figure	Type	Number of IO-Link ports	IO-Link port class A ⁽¹⁾	IO-Link port class B ⁽²⁾	Sensor supply (IO-Link supply and input/output voltage) ⁽³⁾	Actuator supply (for ports class B) ⁽⁴⁾	ASi connection ⁽⁵⁾	Connection ⁽⁶⁾	ASi address ⁽⁷⁾	Article No.
	IP67, 35 mm deep, ASi-5	1	1	–	out of ASi	–	ASi profile cable	1 x M12 cable socket, straight, 5 poles	1 ASi-5 address	BWU4748

- (1) **Port class A (M12):** Pin 4 configurable (IO-Link/DI/DO), additional digital input at pin 2. Compatible with 3 pol IO-Link devices (M8).
- (2) **Port class B (M12):** Pin 4 configurable (IO-Link/DI/DO), additional power supply (galvanically isolated) for IO-Link devices at pins 2 and 5. Compatible with 3 pol IO-Link devices (M8).
- (3) **Sensor supply (IO-Link supply and input/output supply)**
IO-Link and additional inputs/outputs are supplied by ASi or by AUX (auxiliary 24 V power). If supplied by ASi, inputs can neither be connected to earth nor to external potential.
- (4) **Actuator supply (for ports class B)**
Connection via M12: For ports class B the supply of actuators is provided by an additional (galvanically isolated) power supply by AUX (auxiliary 24 V power).
Connection via clamps: If connected IO-Link nodes with port class B need a higher current consumption, additionally they can be supplied directly via the power supply.
- (5) **ASi connection**
The connection to ASi as well to AUX (auxiliary 24 V power) is made via yellow or black ASi profile cable with piercing technology or via M12 socket (in IP20 via clamps).
- (6) **Connection:** further connection options are available on request.

M12 cable socket, angled	M12 cable socket, straight	M8 cable socket, straight	round cable / connecting wires	Push in terminals
PUR line: oil resistant				

- (7) **ASi address**
AB address (max. 62 AB addresses/ASi network), 2 AB addresses (max. 31 modules with 2 AB addresses), single addresses (max. 31 single addresses/ASi network), 1 ASi-5 address (max. 62 ASi-5 addresses/ASi network), mixed use allowed.
For modules with 2 nodes, the 2nd node is switched off as long as the 1st node is addressed "0".
Upon request, nodes are available with specific ASi address profiles.

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Article No.	BWU4748
Connection	
ASi/AUX connection	profile cable and piercing technology
Periphery connection	1 x M12 cable socket, straight, 5 poles
Round cable	1,0 m
	max. allowed tensile strain 10 N
ASi	
Address	1 ASi-5 address
Operating voltage	30 V (18 ... 31.6 V)
Required master	ASi-5 master
Since ASi specification	5
Process data width	2 ... 32 bytes
Max. current consumption	235 mA
Max. current consumption without sensor/actuator supply	35 mA
IO-Link	
Number	1 port class A
	1 x C/Q (IO-Link communication or configurable as digital input or digital output) + 1 x digital input
IO-Link data rate	COM1 / COM2 / COM3
IO-Link data width	per port: up to 32 byte process data + 1 byte PQI
IO-Link revision	1.1
Switching threshold	U < 5 V (low) U > 15 V (high)
Power supply	out of ASi
Power supply of attached sensors (Pin1 = L+)	200 mA per port, $\Sigma(L+, C/Q, I)$ 200 mA
Input (P2 = I)	200 mA per port, $\Sigma(L+, C/Q, I)$ 200 mA
IO-Link / input/output current (Pin4 = C/Q)	150 mA per port, $\Sigma(L+, C/Q, I)$ 200 mA
Max. actuator supply for port class B (P24)	200 mA per port Class A, $\Sigma(\text{class A})$ 200 mA
Display	
LED ASi (green)	on: ASi voltage on flashing: ASi voltage on, but peripheral fault ⁽¹⁾ or address 0 off: no ASi voltage
LED FLT/FAULT (red)	on: ASi address 0 or ASi node offline flashing: peripheral fault ⁽¹⁾ off: node online
LEDs C/Q1 (red/green)	state of IO-Link ports 1: green: IO-Link communication OK yellow: switching signal at input or output at pin4 red: IO-Link communication error or short-circuit
LEDs I1 (yellow)	state of input I1

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Article No.	BWU4748
Environment	
Applied standards	EN 61000-6-2 EN 61000-6-3 EN 61131-2 EN 60529
It can be used with a switched AUX cable, which is passively safe up to SIL3/PLe	yes ⁽²⁾
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +70 °C
Storage temperature	-25 °C ... +85 °C
Housing	plastic, for screw mounting, suitable for cable ducts (≥35 mm installation depth)
Pollution degree	2
Protection category	IP67
Maximum tolerable shock and vibration stress	≤15g, T≤11 ms 10 ... 55 Hz, 0,5 mm amplitude
Insulation voltage	≥500 V
Weight	100 g
Dimensions (W / H / D) in mm	60 / 45 / 35

(1) See table "Peripheral fault indication"

(2) The module is suitable for use in passively safe paths as it has no connection to an AUX potential.

Article no.	Peripheral fault indication			
	Overload sensor supply	Output short circuited	AUX voltage missing	IO-Link error/event
BWU4748	•	•	–	•

Programming

- ASi-5 bit assignment: default 2 byte per port, configurable via ASi-5.

Pin assignment

Signal name	Explanation
I _x	digital input x
L ⁺ _{out of ASi}	IO-Link sensor supply, out of ASi, positive pole
L ⁻ _{out of ASi}	IO-Link sensor supply, out of ASi, negative pole
C/Q _{x out of ASi}	connection x, optionally for IO-Link communication, input or output

Connections: M12 cable sockets, straight, 5 poles

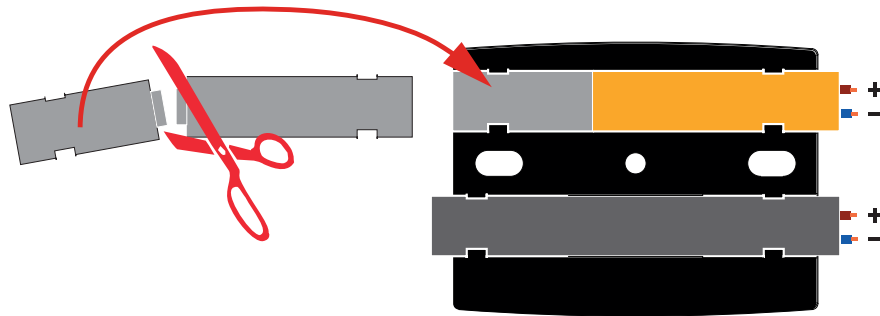
Article no.	M12 connection	Function	Pin1 (BN)	Pin2 (WH)	Pin3 (BU)	Pin4 (BK)	Pin5 (GY)	
BWU4748	X1	IO-Link port Class A	L ⁺ _{1out of ASi}	I1	L ⁻ _{1 out of ASi}	C/Q1 out of ASi	n.c.	

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Line termination with sealing profile



max. IP54



Accessories:

- Sealing profile IP67 (IDC plug), 60 mm (art. no. BW3282)
- ASi-5/ASi-3 Address Programming Device (art. no. BW4925)