

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 AUX

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 AUX	—	ASi profile cable	1 x M12 cable socket, straight, 5 poles	1 ASi-5 address	BWU5056

(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.

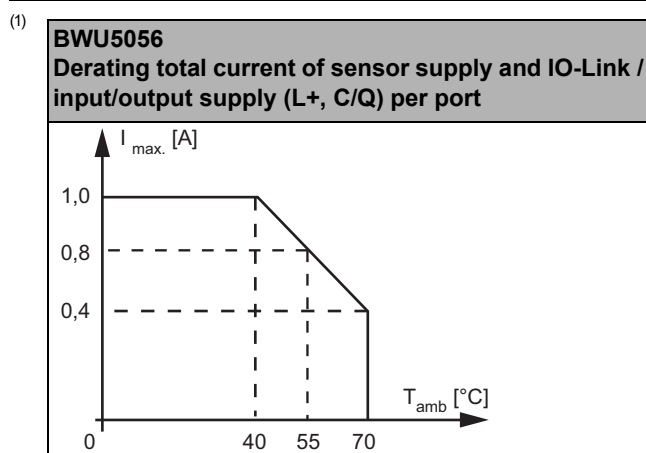
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Article No.		BWU5056
Connection		
ASi/AUX connection		profile cable and piercing technology
Periphery connection		1 x M12 cable socket, straight, 5 poles
Round cable		0,2 m
		max. allowed tensile strain 10 N
ASi		
Address		1 ASi-5 address
Operating 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		35 mA
Max. current consumption without sensor/actuator supply		35 mA
AUX		
Tension		24 V (18 ... 30 V)
Max. current consumption		1 A
IO-Link		
Number		1 port class A
		1 x C/Q (IO-Link communication or configurable as digital input or digital output) + 1x 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 AUX
Power supply of attached sensors (Pin1 = L+)	up to +40 °C	500 mA per port, $\Sigma(L+, C/Q, I)$ 1 A ⁽¹⁾
	at +55 °C	400 mA per port, $\Sigma(L+, C/Q, I)$ 800 mA ⁽¹⁾
	at +70 °C	200 mA per port, $\Sigma(L+, C/Q, I)$ 400 mA ⁽¹⁾
IO-Link / input/output current (Pin4 = C/Q)	up to +40 °C	500 mA per port, $\Sigma(L+, C/Q, I)$ 1 A ⁽¹⁾
	at +55 °C	400 mA per port, $\Sigma(L+, C/Q, I)$ 800 mA ⁽¹⁾
	at +70 °C	200 mA per port, $\Sigma(L+, C/Q, I)$ 400 mA ⁽¹⁾
Max. actuator supply for port	up to +40 °C	1 A per port Class A, $\Sigma(\text{class A})$ 1 A ⁽¹⁾
	at +55 °C	800 mA per port Class A, $\Sigma(\text{class A})$ 800 mA ⁽¹⁾
	at +70 °C	400 mA per port Class A, $\Sigma(\text{class A})$ 400 mA ⁽¹⁾
Display		
LED ASi (green)		on: ASi voltage on flashing: ASi voltage on, but peripheral fault ⁽²⁾ or address 0 off: no ASi voltage
LED AUX (green/red)		green: AUX tension OK red: AUX tension < 18 V
LED FLT/FAULT (red)		on: ASi address 0 or ASi node offline flashing: peripheral fault ⁽²⁾ 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.	BWU5056
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 ⁽³⁾
Operating altitude	max. 2000 m
Ambient temperature	-30 °C ... +70 °C ⁽¹⁾ ⁽⁴⁾
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



(2) See table "Peripheral fault indication"

(3) The module is suitable for use in paths with a passively safe-switched AUX cable, since an exclusion of errors can be assumed for the connection of the two ASi and AUX potentials.

(4) Up to -25°C with flexible cable, -30°C only with fixed cable.

Article no.	Peripheral fault indication			
	Overload sensor supply	Output short circuited	AUX voltage missing	IO-Link event
BWU5056	•	•	•	•

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 ⁺ _{ext out}	IO-Link sensor supply, out of external voltage (AUX), positive pole
L ⁻ _{ext out}	IO-Link sensor supply, out of external voltage (AUX), negative pole
C/Q _{x ext out}	connection x, optionally for IO-Link communication, input or output

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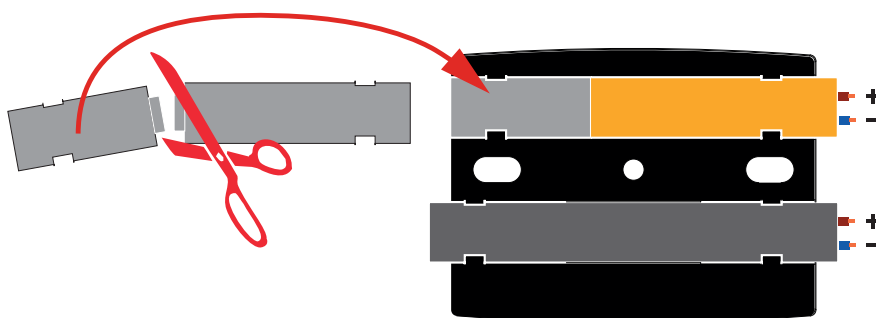
Connections: M12 cable sockets, straight, 5 poles

Article no.	M12 connection	Function	Pin1 (BN)	Pin2 (WH)	Pin3 (BU)	Pin4 (BK)	Pin5 (GY)	
BWU5056	X1	IO-Link port Class A	L+1 ext out	I1	L-1 ext out	C/Q1 ext out	n.c.	

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)