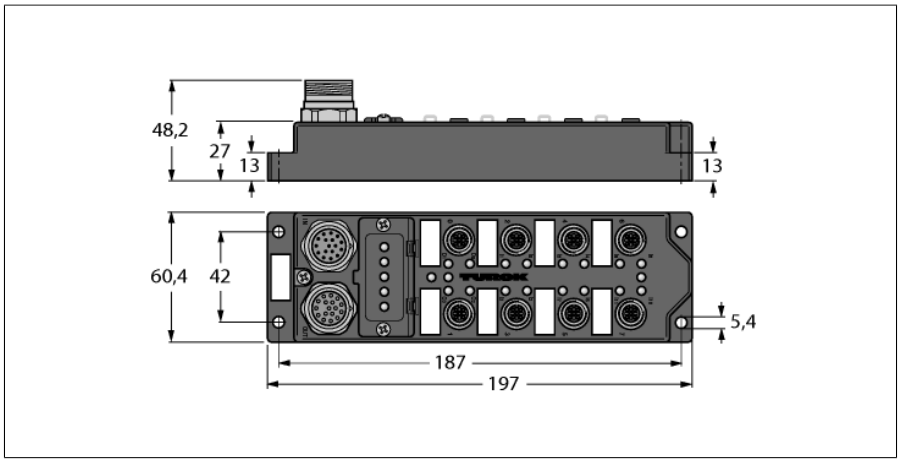
Compact fieldbus stations for INTERBUS
12 digital pnp inputs
4 digital outputs 2 A
FLIB-IOM124-0002 (A2)



- For robot applications
- Robust electromechanics
- High magnetic field immunity
- Intelligent terminating resistor
- Module-related diagnostics
- Fibre-glass reinforced housing
- Vibration and shock-resistant
- Encapsulated module electronics
- Metal connector
- Degree of protection IP67

Type	FLIB-IOM124-0002(A2)
ID	6825366
Number of channels	16
Operating current	< 200 mA
Inputs	
Number of channels	(12) 2/3-wire pnp sensors
Input voltage	18…30 VDC from operating voltage UB
Supply current	120 mA per port, short-circuit proof
Switching threshold	2 mA / 4 mA
Input delay	2.5 ms
Switching frequency	≤ 250 Hz
Max. input current	7 mA
Outputs	
Number of channels	(4) DC actuators
Output voltage	18…30 VDC from load voltage
Output current per channel	2.0 A, short-circuit proof
Load type	resistive, inductive, lamp load
Switching frequency	≤ 250 Hz
Simultaneity factor	1
Fieldbus transmission rate	500 kbps
Fieldbus addressing	physical sequence of the slaves
Electrical isolation	to operating and load voltage

Functional principle

The FLIB-IOM124-0001 is a compact fieldbus I/O module for INTERBUS and especially designed for robotic systems resp. automatic tool changers. The module is available in degree of protection IP67 and features 12 digital pnp inputs and 4 digital 2A outputs.

INTERBUS and power supply are jointly connected via a multibus cable with M23 connection technology which was especially developed for robotic applications.

Due to the target application, the module also features an intelligent terminating resistor. The terminating resistor is automatically connected if the roboter module is the last slave at the INTERBUS branch. Once a further INTERBUS slave is added, the terminating resistor is automatically disconnected. Automatic connection of the internal terminating resistor is carried out, provided pin 15 and 16 of the M23 coupling (OUT) are not short-circuited.

Peripheral errors are signalled until they are acknowledged by the INTERBUS master.

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Dimensions (W x L x H)	60 x 197 x 40 mm
Housing material	fibre-glass reinforced Polyamide (PA6-GF30)
Halogen-free	yes
Mounting	4 mounting holes Ø 5,4 mm
Ambient temperature	0…+55 °C
Storage temperature	-25…+70 °C
Vibration test	Acc. to DIN EN 60068-2-6/-2-27
Shock test	acc. to DIN EN 60068-2-6/-2-27
Electromagnetic compatibility	Acc. to EN 61000-6-2/EN 61000-6-4
Protection class	IP67

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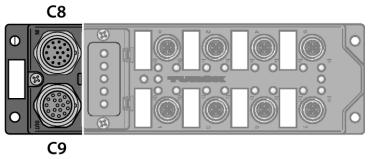


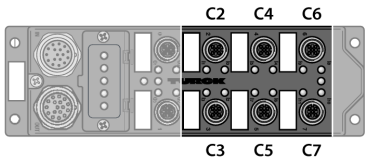
Note

Multibus robot cable (example):
The robot cables are exclusively sold by Ernst & Engbring GmbH & Co. KG.
Field-wireable M23 connector:
Female connector
6604066 FW-M23KU17O-W-CP-ME-SH-14.5
Male connector:
6604067 FW-M23ST17Q-G-CP-ME-SH-14.5

M23 x 1 Fieldbus

17-pole round connector			
IN		OUT	
1		1	0 V (GND)
2		2	0 V (GND)
3		3	24 VDC (U_L)
4		4	24 VDC (U_B)
5		5	PE
6		6	
7		7	DO
8		8	/DO
9		9	DI
10		10	/DI
11		11	COM
12		12	
13		13	
14		14	
15		15	reserved
16		16	reserved
17		17	

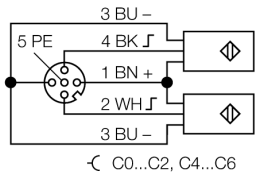
C8 C9

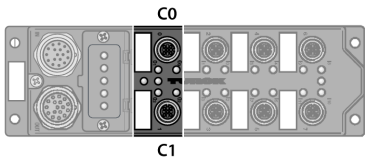


Note

Sensor/actuator cable (example):
WAK4.5-5-WAS4.5/S57
Ident-No. 8016989

M12 x 1 Input

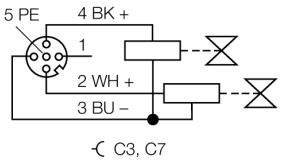




Note

Sensor/actuator cable (example):
WAK4.5-5-WAS4.5/S57
Ident-No. 8016989

M12 x 1 Output



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LED status module

LED	Color	Status	Description
Bus Active	green	on	Exchange of user data via master
Remote Check	green	on	Communication via master not possible
Remote Disable	red	on	Bus interface switched off
US1	green	on	Within the defined tolerances
	red	on	Unvalid range
		off	Below the defined tolerances
US2	green	on	Within the defined tolerances
		flashing	Unvalid range
		off	Below the defined tolerances

LED status IOs

LED	Color	Status	Description
Inputs	yellow	off	Input undamped (low)
		on	Input damped (high)
	red	on	Short-circuit resp. overload US1
Outputs	yellow	off	Output undamped (low)
		on	Output damped (high)
	red	off	Short-circuit resp. overload US2

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I/O data display

INTERBUS	**Word**	**0**														
	Bit	**15**	**14**	**13**	**12**	**11**	**10**	**9**	**8**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
	Byte	**0**								**1**							
	Bit	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**
Inputs	**Con**	**5**		**4**		**3**		**2**						**7**		**6**	
	Ch	**7**	**6**	**5**	**4**	**3**	**2**	**1**	**0**					**11**	**10**	**9**	**8**
Outputs	**Con**					**1**		**0**									
	Ch					**3**	**2**	**1**	**0**								

Con - male connector

Ch - port

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