



FC1A-BZ2A1A

FlexChain

SWITCHING AUTOMATION LIGHT GRIDS

SICK
Sensor Intelligence.



Ordering information

Type	Part no.
FC1A-BZ2A1A	1091609

Included in delivery: M8 4POL-MALE BUS ABSCHLUSS STECKER (2)

Other models and accessories → www.sick.com/FlexChain



Detailed technical data

Features

Device version	FlexChain Host
Sensor principle	Sender/receiver Photoelectric retro-reflective sensor Photoelectric proximity sensor Light grid system
Configuration	USB connection for easy configuration of the FlexChain with SOPAS ET, the engineering tool from SICK
Configuration	Sensor parameterization Zone definition Measurement functions Logic function Interface parameterization Diagnostics functions
Included with delivery	1 × FlexChain Host 1 × Quick Start Guide 2 × FlexChain terminators (2119481)

Mechanics/electronics

Supply voltage V_s	24 V ^{1) 2)}
Current consumption $I_{max.}$ (at maximum number of guests)	600 mA @ 24 V
Output current $I_{max.}$	100 mA
Output load capacitive	100 µF
Output load inductive	1 H
Initialization time	< 1 s
Dimensions (W x H x D)	109.4 mm x 25 mm x 35 mm
Connection type	Cable with plug M12, 8-pin ³⁾
Housing material	Plastic (ABS)

¹⁾ ± 20 %.

²⁾ Reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

³⁾ PLC communication control.

Synchronization	Cable
Enclosure rating	IP65, IP67
Circuit protection	U _V connections, reverse polarity protected Output Q short-circuit protected Interference pulse suppression
Protection class	III
Weight	Approx. 161 g

¹⁾ ± 20 %.

²⁾ Reverse-polarity protected, operation in short-circuit protected network: max. 8 A.

³⁾ PLC communication control.

Performance

Response time	≤ 35 ms ¹⁾
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¹⁾ Depending on system configuration.

Communication interface

IO-Link	✓, IO-Link V1.1
Data transmission rate	230,4 kbit/s (COM3)
Cycle time	≥ 2.3 s
Process data length	32 Byte
Digital output	Q ₁ ... Q ₆
Number	6
Digital input	In ₁ ... In ₅
Number	5

Ambient data

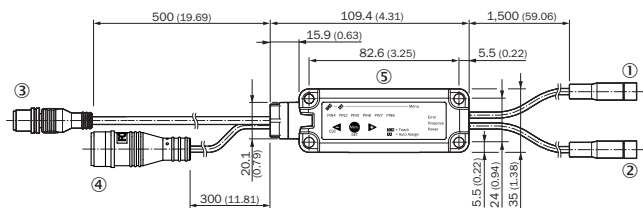
EMC	EN 61000-6-2, EN 61000-6-3
Ambient operating temperature	-25 °C +50 °C
Ambient storage temperature	-25 °C +70 °C
Vibration resistance	Sinusoidal oscillation 20-2,000 Hz 10 g, 3 h per axle
Shock load	Single shocks 30 g, 11 ms 6 per axle Continuous shocks 25 g, 6 ms, 1,000 per axis

Classifications

ECI@ss 5.0	27270910
ECI@ss 5.1.4	27270910
ECI@ss 6.0	27270910
ECI@ss 6.2	27270910
ECI@ss 7.0	27270910
ECI@ss 8.0	27270910
ECI@ss 8.1	27270910
ECI@ss 9.0	27270910
ECI@ss 10.0	27270910
ECI@ss 11.0	27270910
ETIM 5.0	EC002549
ETIM 6.0	EC002549

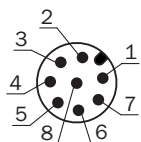
ETIM 7.0	EC002549
UNSPSC 16.0901	39121528

Dimensional drawing (Dimensions in mm (inch))

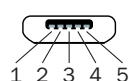


- ① Port A, cable with female connector, M8, 4-pin
- ② Port B, cable with female connector, M8, 4-pin
- ③ PLC, cable with male connector, M12, 8-pin
- ④ USB Micro-B, cable with female connector, M16, 5-pin
- ⑤ Control panel

Connection type and diagram



PLC	
IO-Link (Q)	
5 x I/O	
BN 1	+(L+)
WH 2	Q ₂ /In ₁
BU 3	-(M)
BK 4	Q ₁ /C
GY 5	Q ₃ /In ₂
PK 6	Q ₄ /In ₃
VT 7	Q ₅ /In ₄
OG 8	Q ₆ /In ₅



USB Micro-B	
(Female connector)	
BN 1	+5 V
WH 2	Data-
BU 3	Data+
BK 4	not connected
GY 5	GND



Port A/B	
(Female connector)	
BN 1	CAN_H
WH 2	CAN_L
BU 3	+12 V
BK 4	GND

Recommended accessories

Other models and accessories → www.sick.com/FlexChain

	Brief description	Type	Part no.
	SIG200		
	SIG200-0A0412200	SIG200-0A0412200	1089794

	Brief description	Type	Part no.
	SIG200-0A0G12200	SIG200-0A0G12200	1102605
Plug connectors and cables			
	Head A: female connector, M12, 8-pin, straight, A-coded Head B: Flying leads Cable: Sensor/actuator cable, special color code, PVC, shielded, 10 m	YF2A28-100S01XLEAX	2099605
	Head A: male connector, USB-A Head B: male connector, Micro-B Cable: USB 2.0, unshielded, 2 m	USB cable	6036106

SICK AT A GLANCE

SICK is one of the leading manufacturers of intelligent sensors and sensor solutions for industrial applications. A unique range of products and services creates the perfect basis for controlling processes securely and efficiently, protecting individuals from accidents and preventing damage to the environment.

We have extensive experience in a wide range of industries and understand their processes and requirements. With intelligent sensors, we can deliver exactly what our customers need. In application centers in Europe, Asia and North America, system solutions are tested and optimized in accordance with customer specifications. All this makes us a reliable supplier and development partner.

Comprehensive services complete our offering: SICK LifeTime Services provide support throughout the machine life cycle and ensure safety and productivity.

For us, that is “Sensor Intelligence.”

WORLDWIDE PRESENCE:

Contacts and other locations –www.sick.com