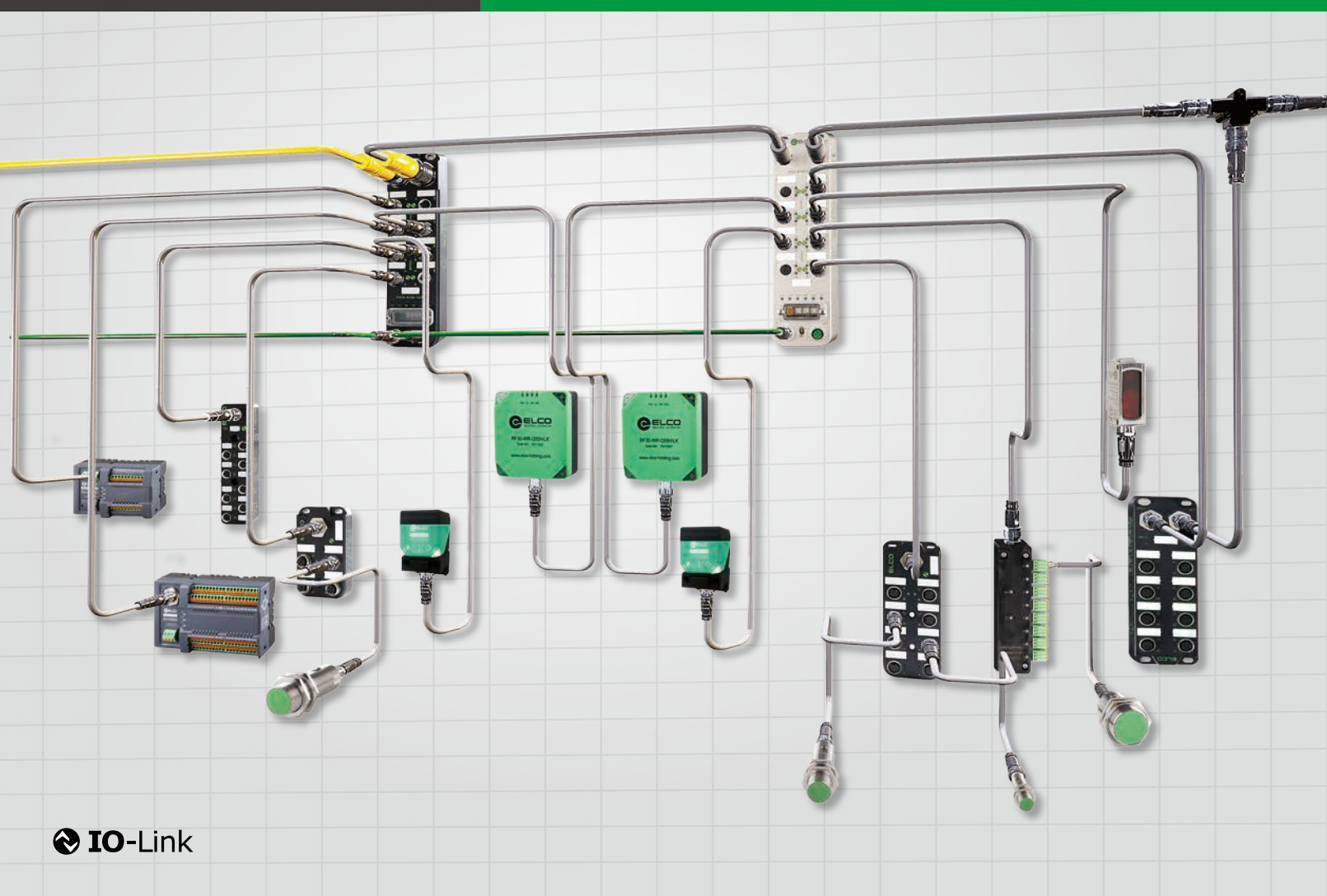


IO-LINK Product Catalog

IO-LINK Masters+Hubs





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Overview:

ELCO's new Compact67 product, which supports IO-Link communication, does not require a dedicated communication cable as an IO-Link master. Efficient communication with IO-Link devices can be achieved using standard unshielded industrial cables. Each IO-Link master can support up to 8 IO-Link interfaces. It can select the interface type of Class-A or Class-B according to the requirements. It meets the requirements of IO-Link v1.1 version, and supports three transmission speed COM1 (4.8kbps), COM2 (38.4kbps), COM3 (230.4kbps). It is easy to connect all brands of IO-Link sensors and other IO-Link devices, as well as sensors and actuators with common switching signal.

The IO-Link sensor hub, also introduced as an IO-Link device, meets the requirements of IO-Link v1.1 and supports COM2 (38.4 kbps) communication rate. It can be connected to Elco or other brands IO-Link masters for collecting field digital input signals and controlling digital output signals. Each hub can connect up to 16 switching signals, and with Elco's 8-port IO-Link master module, it can transmit up to 128 switching signals.

Features:

- >> IO-LINK solution: IP67 Masters + IP67 Hubs + IP20 Hubs
- >> Designed with IO-Link v1.1 specification
- >> The Master supports three communication rates of COM1, 2, and 3
- >> Interface type Class-A or Class-B is optional
- >> Connects various IO-Link standard devices and standard switch signals
- >> LED status display, protection, and diagnostics in channel level





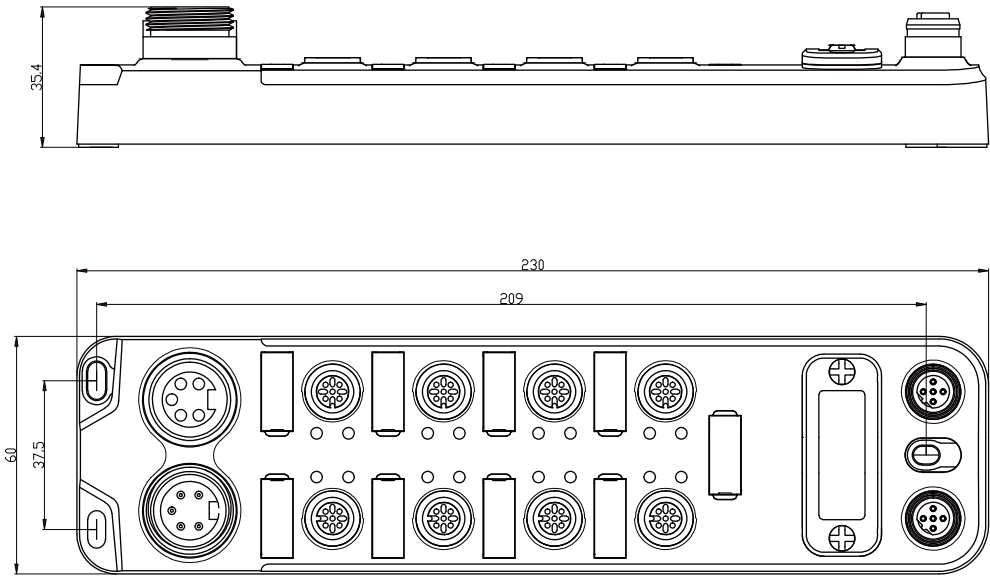
IO-Link Master

- IO-Link Version 1.1.2
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A or Class-B

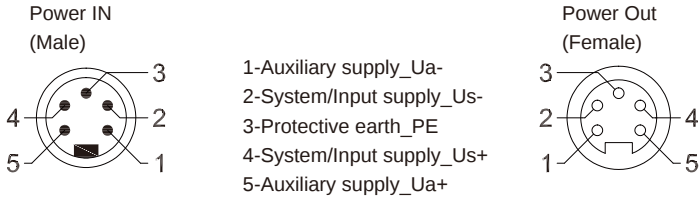


Ordering data			
Product type	FCPN-8LKM-4A4B	FCPN-8LKM-8A	FCPN-4LKM-4A4S
Description	8 IO-Link ports	8 IO-Link ports	4 IO-Link ports
Communication			
Protocol	Profinet		
Operating modes	Auto-negotiation, Auto-MDI/MDI-X		
Transfer rate	10/100 Mbps		
Addressing	Profinet standard, DCP		
Topology	Support		
Media Redundancy Protocol	Support		
Power supply			
Supply voltage	24 VDC (18...30 VDC)		
Current consumption	Max. 200 mA		
System & Input supply	Us, Max. 8 A		
Output supply	Ua, Max. 8 A		
Electrical isolation	Us and Ua completely separated	Us and Ua: 24V separated, 0V connected	
Connections			
Power supply	2 x 7/8" 5pin, Male+Female		
Fieldbus	2 x M12 D-code 4pin, Female		
Signals	8 x M12 A-code 5pin, Female		
Interface			
IO-Link ports	8	8	4
IO-Link type	4*Class-A + 4*Class-B	8*Class-A	4*Class-A
IO-Link version	IO-Link V1.1.2		
IO-Link communication rates	COM1 (4.8kbps), COM2 (38.4kbps), COM3 (230.4kbps)		
Input channels	Max. 12	Max. 16	Max. 16
Input supply current	IO-Link: 1.6A per channel, Signal: 200 mA per channel		
Auxiliary supply current	2 A per channel		
Input type	PNP sensors, mechanical switches, dry contacts, etc..		
Input delay	3.2 ms		
Output channels	Max. 12	Max. 16	Max. 16
Output current	Max. 2A per channel		
Output type	Lamps, solenoidvalve, etc..		
Output frequency	Resistive load 100Hz, Inductive load 5 Hz		
Diagnostics			
Communication indication	LED indication, Communication message		
Voltage detection	Support, Low voltage alarm		
Short-circuit & Overload	Support, LED indication		
General data			
Housing material	Reinforced nylon+fiberglass		
Protection	IP67		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	60 x 230 x 39 mm		

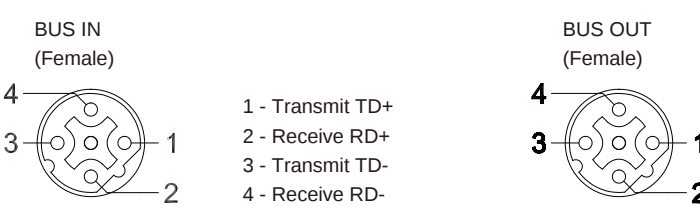
Dimensions drawing



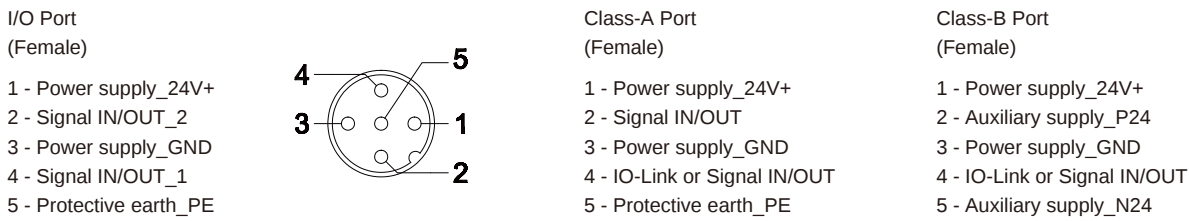
Voltage supply drawing



Fieldbus drawing

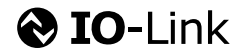


I/O Port drawing



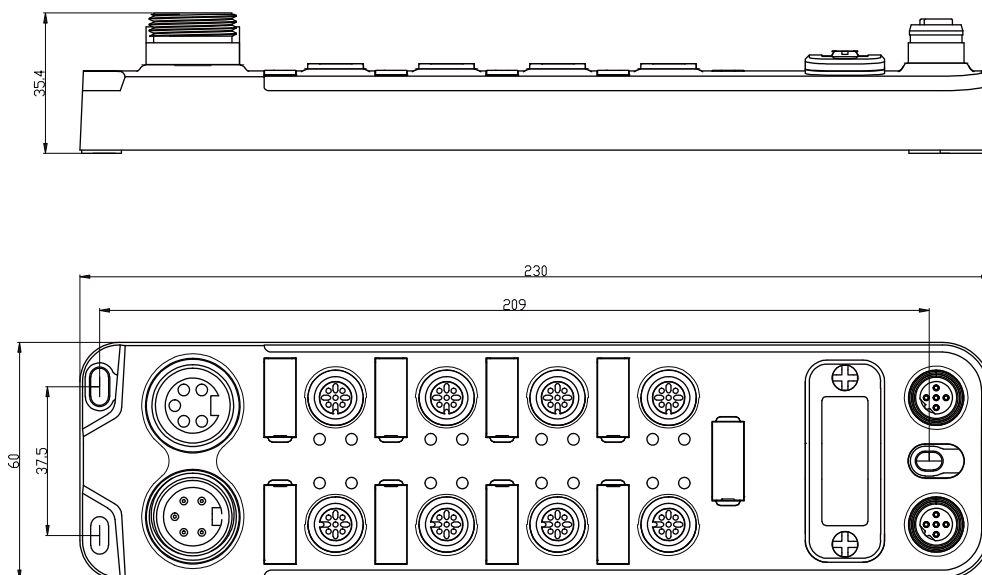
IO-Link Master

- IO-Link Version 1.1.2
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A or Class-B



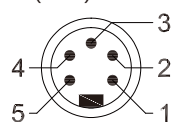
Ordering data			
Product type	FCEI-8LKM-4A4B	FCEI-8LKM-8A	FCEI-4LKM-4A4S
Description	8 IO-Link ports	8 IO-Link ports	4 IO-Link ports
Communication			
Protocol	EtherNet/IP		
Operating modes	Auto-negotiation, Auto-MDI/MDI-X		
Transfer rate	10/100 Mbps		
Addressing	DHCP, BOOTP		
Media Redundancy Protocol	Support		
Power supply			
Supply voltage	24 VDC (18...30 VDC)		
Current consumption	Max. 200 mA		
System & Input supply	Us, Max. 8 A		
Output supply	Ua, Max. 8 A		
Electrical isolation	Us and Ua completely separated	Us and Ua: 24 V separated, 0 V connected	
Connections			
Power supply	2 x 7/8" 5pin, Male+Female		
Fieldbus	2 x M12 D-code 4pin, Female		
Signals	8 x M12 A-code 5pin, Female		
Interface			
IO-Link ports	8	8	4
IO-Link type	4*Class-A + 4*Class-B	8*Class-A	4*Class-A
IO-Link version	IO-Link V1.1.2		
IO-Link communication rates	COM1 (4.8kbps), COM2 (38.4kbps), COM3 (230.4kbps)		
Input channels	Max. 12	Max. 16	Max. 16
Input supply current	IO-Link: 1.6A per channel, Signal: 200 mA per channel		
Auxiliary supply current	2A per channel		
Input type	PNP sensors, mechanical switches, dry contacts, etc..		
Input delay	1.6 ms		
Output channels	Max. 12	Max. 16	Max. 16
Output current	Max. 2 A per channel		
Output type	Lamps, solenoidvalve, etc..		
Output frequency	Resistive load 100Hz, Inductive load 5Hz		
Diagnostics			
Communication indication	LED indication, Communication message		
Voltage detection	Support, Low voltage alarm		
Short-circuit & Overload	Support, LED indication		
General data			
Housing material	Reinforced nylon+fiberglass		
Protection	IP67		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	60 x 230 x 39 mm		

Dimensions drawing



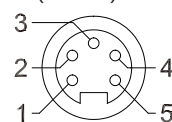
Voltage supply drawing

Power IN
(Male)



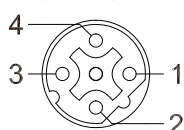
- 1-Auxiliary supply_Ua-
- 2-System/Input supply_Us-
- 3-Protective earth_PE
- 4-System/Input supply_Us+
- 5-Auxiliary supply_Ua+

Power Out
(Female)



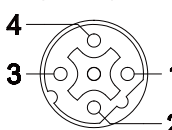
Fieldbus drawing

BUS IN
(Female)



- 1 - Transmit TD+
- 2 - Receive RD+
- 3 - Transmit TD-
- 4 - Receive RD-

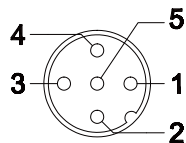
BUS OUT
(Female)



I/O Port drawing

I/O Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT_2
- 3 - Power supply_GND
- 4 - Signal IN/OUT_1
- 5 - Protective earth_PE



Class-A Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Protective earth_PE

Class-B Port
(Female)

- 1 - Power supply_24V+
- 2 - Auxiliary supply_P24
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Auxiliary supply_N24

IO-Link Master

- IO-Link Version 1.1.2
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A or Class-B

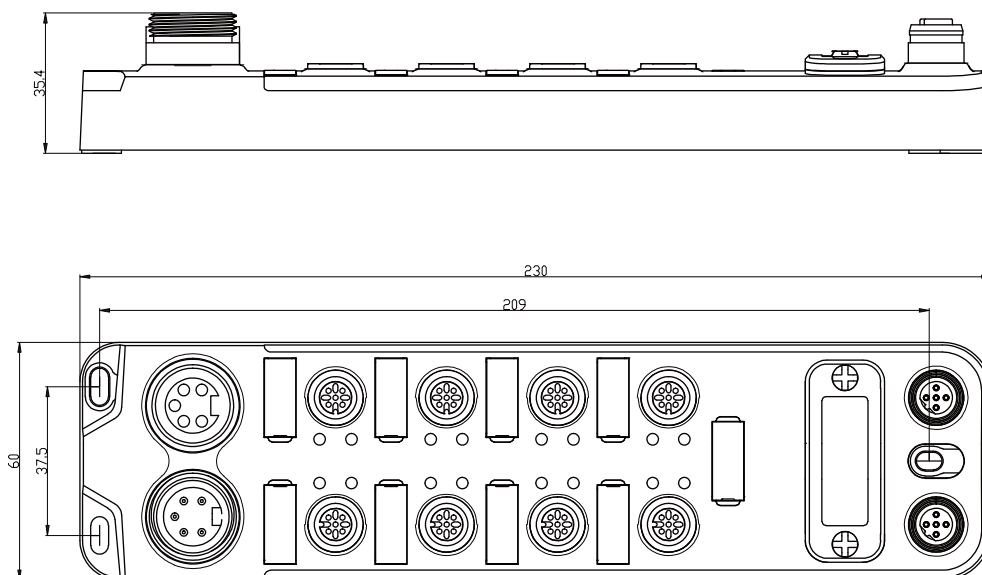


EtherCAT

IO-Link

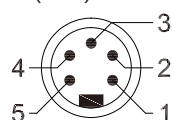
Ordering data			
Product type	FCEC-8LKM-4A4B	FCEC-8LKM-8A	FCEC-4LKM-4A4S
Description	8 IO-Link ports	8 IO-Link ports	4 IO-Link ports
Communication			
Protocol	EtherCAT		
Operating modes	Auto-negotiation, Auto-MDI/MDI-X		
Transfer rate	10/100 Mbps		
Addressing	System automatic allocation		
Power supply			
Supply voltage	24 VDC (18...30 VDC)		
Current consumption	Max. 200 mA		
System & Input supply	Us, Max. 8 A		
Output supply	Ua, Max. 8 A		
Electrical isolation	Us and Ua completely separated	Us and Ua: 24 V separated, 0 V connected	
Connections			
Power supply	2 x 7/8" 5pin, Male+Female		
Fieldbus	2 x M12 D-code 4pin, Female		
Signals	8 x M12 A-code 5pin, Female		
Interface			
IO-Link ports	8	8	4
IO-Link type	4*Class-A + 4*Class-B	8*Class-A	4*Class-A
IO-Link version	IO-Link V1.1.2		
IO-Link communication rates	COM1 (4.8kbps), COM2 (38.4kbps), COM3 (230.4kbps)		
Input channels	Max. 12	Max. 16	Max. 16
Input supply current	IO-Link: 1.6A per channel, Signal: 200 mA per channel		
Auxiliary supply current	2A per channel		
Input type	PNP sensors, mechanical switches, dry contacts, etc..		
Input delay	1.6 ms		
Output channels	Max. 12	Max. 16	Max. 16
Output current	Pin2: Max. 2 A; Pin4: Max. 100 mA		
Output type	Lamps, solenoidvalve, etc..		
Output frequency	Resistive load 100 Hz, Inductive load 5 Hz		
Diagnostics			
Communication indication	LED indication, Communication message		
Voltage detection	Support, Low voltage alarm		
Short-circuit & Overload	Support, LED indication		
General data			
Housing material	Reinforced nylon+fiberglass		
Protection	IP67		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	60 x 230 x 39 mm		

Dimensions drawing



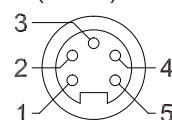
Voltage supply drawing

Power IN
(Male)



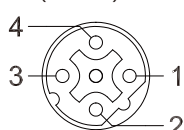
- 1-Auxiliary supply_Ua-
- 2-System/Input supply_Us-
- 3-Protective earth_PE
- 4-System/Input supply_Us+
- 5-Auxiliary supply_Ua+

Power Out
(Female)



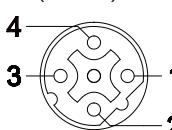
Fieldbus drawing

BUS IN
(Female)



- 1 - Transmit TD+
- 2 - Receive RD+
- 3 - Transmit TD-
- 4 - Receive RD-

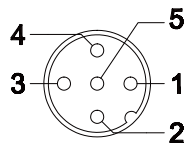
BUS OUT
(Female)



I/O Port drawing

I/O Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT_2
- 3 - Power supply_GND
- 4 - Signal IN/OUT_1
- 5 - Protective earth_PE



Class-A Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Protective earth_PE

Class-B Port
(Female)

- 1 - Power supply_24V+
- 2 - Auxiliary supply_P24
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Auxiliary supply_N24

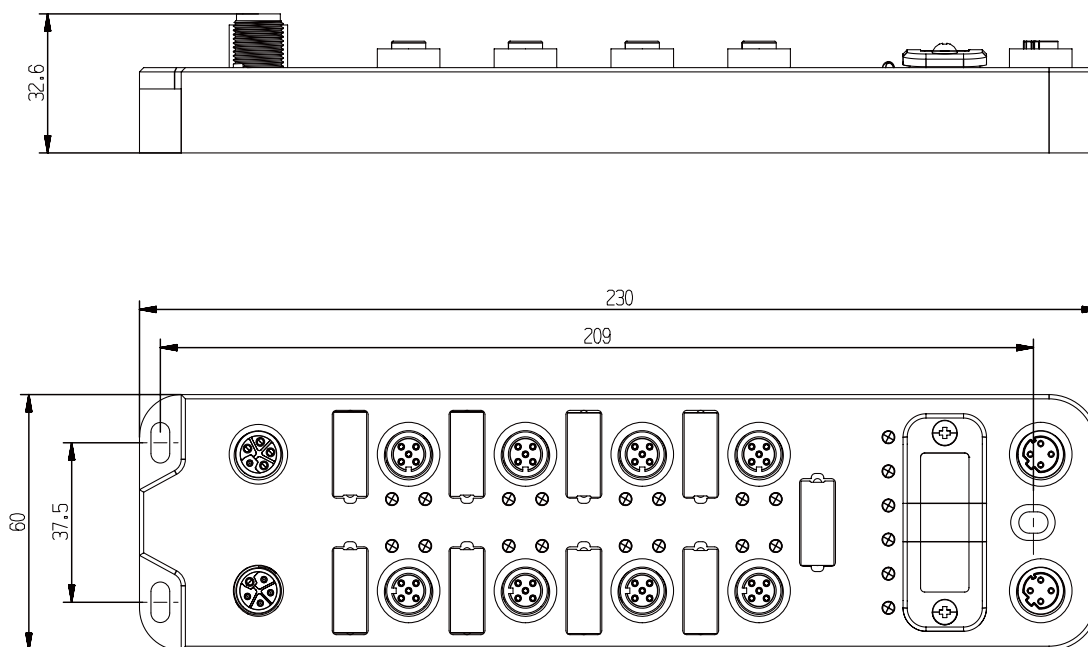
IO-Link Metal Housing Master

- IO-Link Version 1.1.2
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A or Class-B
- Metal housing for better EMC performance and protection capabilities



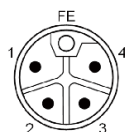
Ordering data			
Product type	FCPN-8LKM-4A4B-M	FCPN-8LKM-8A-M	FCPN-4LKM-4A4S-M
Description	8 IO-Link ports	8 IO-Link ports	4 IO-Link ports
Communication			
Protocol	Profinet		
Operating modes	Auto-negotiation, Auto-MDI/MDI-X		
Transfer rate	10/100 Mbps		
Addressing	Profinet standard, DCP		
Topology	Support		
Media Redundancy Protocol	Support		
Power supply			
Supply voltage	24 VDC (18...30 VDC)		
Current consumption	Max. 200 mA		
System & Input supply	Us, Max. 9 A		
Output supply	Ua, Max. 9 A		
Electrical isolation	Us and Ua completely separated	Us and Ua: 24 V separated , 0 V connected	
Connections			
Power supply	2xM12 L-code 5pin, Male+Female		
Fieldbus	2xM12 D-code 4pin, Female		
Signals	8xM12 A-code 5pin, Female		
Interface			
IO-Link ports	8	8	4
IO-Link type	4*Class-A + 4*Class-B	8*Class-A	4*Class-A
IO-Link version	IO-Link V1.1.2		
IO-Link communication rates	COM1 (4.8kbps), COM2 (38.4kbps), COM3 (230.4kbps)		
Input channels	Max.12	Max. 16	Max. 16
Input supply current	IO-Link: 1.6A per channel, Signal: 200 mA per channel		
Auxiliary supply current	2A per channel		
Input type	PNP sensors, mechanical switches, dry contacts, etc..		
Input delay	1.6 ms		
Output channels	Max. 12	Max. 16	Max. 16
Output current	Pin2: Max. 2 A; Pin4: Max. 100 mA		
Output type	Lamps, solenoidvalve , etc..		
Output frequency	Resistive load 100 Hz, Inductive load 5 Hz		
Diagnostics			
Communication indication	LED indication, Communication message		
Voltage detection	Support, Low voltage alarm		
Short-circuit & Overload	Support, LED indication		
General data			
Housing material	Casting Zinc Alloy		
Protection	IP67		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	60 x 230 x 32.6 mm		

Dimensions drawing



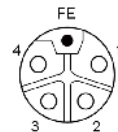
Voltage supply drawing

Power IN
(Male)



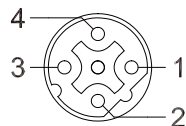
- 1-System/Input supply_Us+
- 2-Auxiliary supply_Ua-
- 3-System/Input supply_Us-
- 4- Auxiliary supply_Ua+
- 5-Function earth_FE

Power Out
(Female)



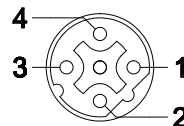
Fieldbus drawing

BUS IN
(Female)



- 1 - Transmit TD+
- 2 - Receive RD+
- 3 - Transmit TD-
- 4 - Receive RD-

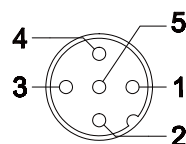
BUS OUT
(Female)



I/O Port drawing

I/O Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT_2
- 3 - Power supply_GND
- 4 - Signal IN/OUT_1
- 5 - Protective earth_PE



Class-A Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Protective earth_PE

Class-B Port
(Female)

- 1 - Power supply_24V+
- 2 - Auxiliary supply_P24
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Auxiliary supply_N24

IO-Link Metal Housing Master

- IO-Link Version 1.1.2
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A or Class-B
- Metal housing for better EMC performance and protection capabilities

EtherCAT

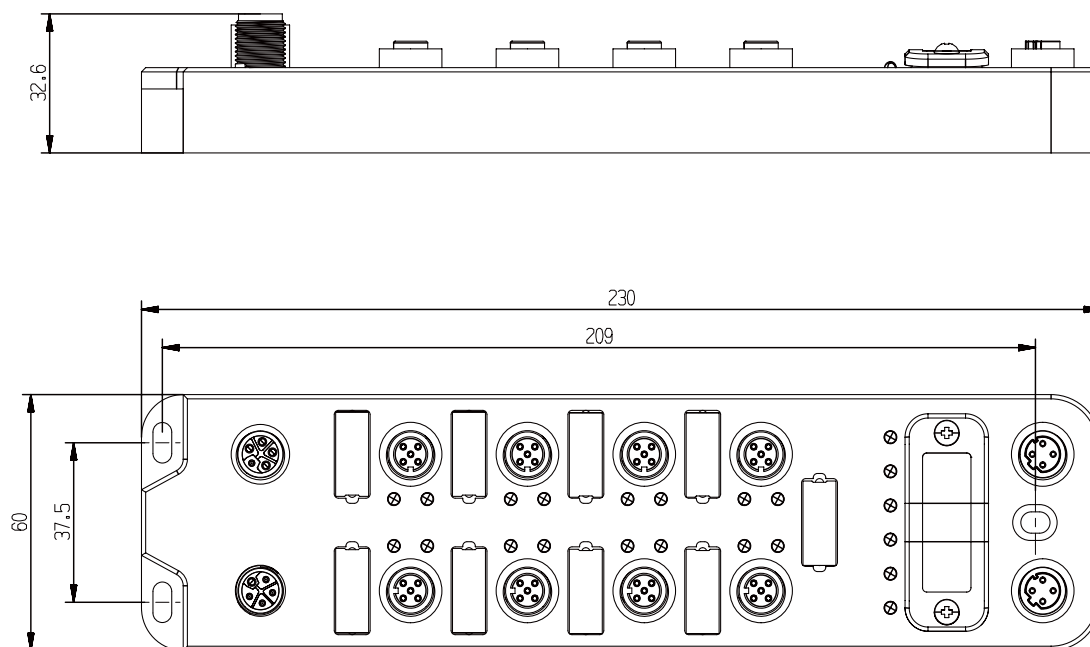


IO-Link

Ordering data			
Product type	FCEC-8LKM-4A4B-M	FCEC-8LKM-8A-M	FCEC-4LKM-4A4S-M
Description	8 IO-Link ports	8 IO-Link ports	4 IO-Link ports
Communication			
Protocol	EtherCAT		
Operating modes	Auto-negotiation, Auto-MDI/MDI-X		
Transfer rate	10/100 Mbps		
Addressing	System automatic allocation		
Power supply			
Supply voltage	24 VDC (18...30 VDC)		
Current consumption	Max. 200 mA		
System & Input supply	Us, Max. 9 A		
Output supply	Ua, Max. 9 A		
Electrical isolation	Us and Ua completely separated	Us and Ua: 24 V separated, 0 V connected	
Connections			
Power supply	2xM12 L-code 5pin, Male+Female		
Fieldbus	2xM12 D-code 4pin, Female		
Signals	8xM12 A-code 5pin, Female		
Interface			
IO-Link ports	8	8	4
IO-Link type	4*Class-A + 4*Class-B	8*Class-A	4*Class-A
IO-Link version	IO-Link V1.1.2		
IO-Link communication rates	COM1 (4.8kbps), COM2 (38.4kbps), COM3 (230.4kbps)		
Input channels	Max. 12	Max. 16	Max. 16
Input supply current	IO-Link: 1.6 A per channel, Signal: 200 mA per channel		
Auxiliary supply current	2 A per channel		
Input type	PNP sensors, mechanical switches, dry contacts, etc..		
Input delay	1.6 ms		
Output channels	Max. 12	Max. 16	Max.16
Output current	Pin2: Max. 2 A; Pin4: Max. 100 mA		
Output type	Lamps, solenoidvalve, etc..		
Output frequency	Resistive load 100 Hz, Inductive load 5 Hz		
Diagnostics			
Communication indication	LED indication, Communication message		
Voltage detection	Support, Low voltage alarm		
Short-circuit & Overload	Support, LED indication		
General data			
Housing material	Casting Zinc Alloy		
Protection	IP67		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	60 x 230 x 32.6 mm		

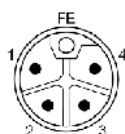
IO-Link Metal Housing Master

Dimensions drawing



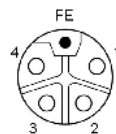
Voltage supply drawing

Power IN
(Male)



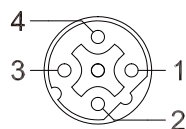
- 1-System/Input supply_Us+
- 2-Auxiliary supply_Ua-
- 3-System/Input supply_Us-
- 4- Auxiliary supply_Ua+
- 5-Function earth_FE

Power OUT
(Female)



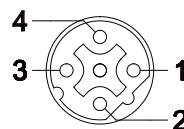
Fieldbus drawing

BUS IN
(Female)



- 1 - Transmit TD+
- 2 - Receive RD+
- 3 - Transmit TD-
- 4 - Receive RD-

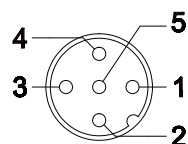
BUS OUT
(Female)



I/O Port drawing

I/O Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT_2
- 3 - Power supply_GND
- 4 - Signal IN/OUT_1
- 5 - Protective earth_PE



Class-A Port
(Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Protective earth_PE

Class-B Port
(Female)

- 1 - Power supply_24V+
- 2 - Auxiliary supply_P24
- 3 - Power supply_GND
- 4 - IO-Link or Signal IN/OUT
- 5 - Auxiliary supply_N24

IO-Link Metal Housing Master

- IO-Link Version 1.1.3
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A
- Metal housing

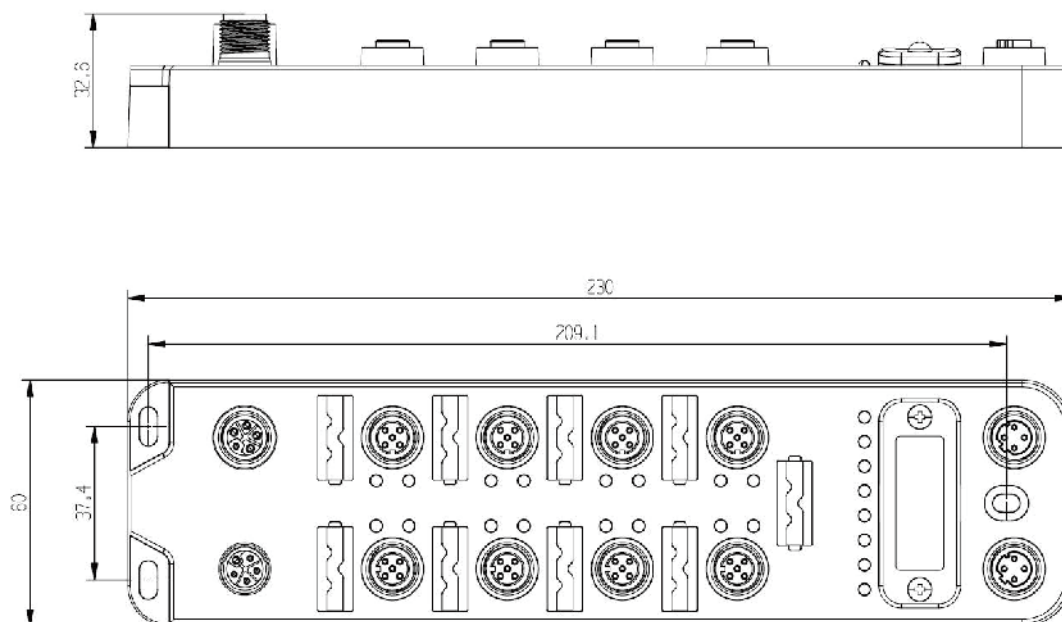
CC-Link IE Field Basic



 IO-Link

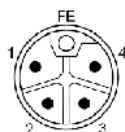
Ordering data	
Product type	FCCB-8LKM-8A-M
Description	8 IO-Link ports
Communication	
Protocol	CC-LINK IE Fied Basic
Operating modes	CC-Link IE Field Basic Hub
Transfer rate	10/100 Mbps
Addressing	System automatic allocation
Power supply	
Supply voltage	24 VDC (18...30 VDC)
Self consumption	Max. 200mA
System&Input supply	Us, Max. 12A
Output supply	Ua, Max. 12A
Electrical isolation	Us and Ua: 24V separated, 0V connected
Connections	
Power supply	2 x M12 L-code 5pin, Male+Female
Fieldbus	2 x M12 D-code 4pin, Female
Signals	8 x M12 A-code 5pin, Female
Interface	
IO-Link ports	8
IO-Link type	8*Class-A
IO-Link version	IO-Link V1.1.3
IO-Link communication rates	COM1(4.8kbps), COM2(38.4kbps), COM3(230.4kbps)
Input channels	Max. 16 (8*Pin4+8*Pin2)
Input supply current	Pin1&Pin3: 1.6A per channel
Input type	PNP sensors, mechanical switches, dry contacts, etc..
Input delay	1.6 ms
Output channels	Max. 8 (8*Pin2)
Output current	Max. 2A per channel
Output type	Lamps, solenoidvalve, etc..
Output frequency	Resistive load 100Hz, Inductive load 5Hz
Diagnostics	
Communication indication	LED indication, Communication message
Voltage detection	Support, Low voltage alarm
Short-circuit & Overload	Support, LED indication
General data	
Housing material	Casting Zinc Alloy
Protection	IP67
Temperature	Operating -25...+70 °C, Storage -40...+85 °C
Dimensions (W*H*D)	60x230x37.8 mm

Dimensions drawing



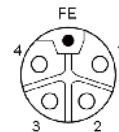
Voltage supply drawing

Power IN
(Male)



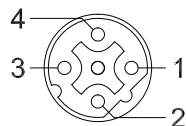
- 1 - System/Input supply_Us+
- 2 - Auxiliary supply_Ua-
- 3 - System/Input supply_Us-
- 4 - Auxiliary supply_Ua+
- 5 - Function earth_FE

Power OUT
(Female)



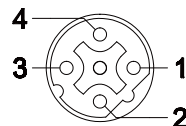
Fieldbus drawing

BUS IN
(Female)

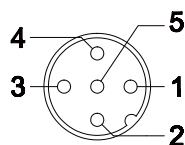


- 1 - Transmit TD+
- 2 - Receive RD+
- 3 - Transmit TD-
- 4 - Receive RD-

BUS OUT
(Female)



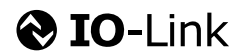
I/O Port drawing



- Class-A Port
(Female)
- 1 - Power supply_24V+
 - 2 - Digital IN/OUT
 - 3 - Power supply_GND
 - 4 - IO-Link or Digital IN
 - 5 - Protective earth_PE

IO-Link Metal Housing Master

- IO-Link Version 1.1.3
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A
- Multiprotocol for Ethernet
- Metal housing



Ordering data

Product type	FCEN-8LKM-8A-M
Description	8 IO-Link ports

Communication

Protocol	EtherNet/IP , Profinet
Operating modes	Auto-negotiation, Auto-MDI/MDI-X
Transfer rate	10/100 Mbps
Addressing	DHCP, BOOTP

Power supply

Supply voltage	24 VDC (18...30 VDC)
Self consumption	Max. 200mA
System&Input supply	Us, Max. 12A
Output supply	Ua, Max. 12A
Electrical isolation	Us and Ua: 24V separated, 0V connected

Connections

Power supply	2 x M12 L-code 5pin, Male+Female
Fieldbus	2 x M12 D-code 4pin, Female
Signals	8 x M12 A-code 5pin, Female

Interface

IO-Link ports	8
IO-Link type	8*Class-A
IO-Link version	IO-Link V1.1.3
IO-Link communication rates	COM1(4.8kbps), COM2(38.4kbps), COM3(230.4kbps)
Input channels	Max. 16 (8*Pin4+8*Pin2)
Input supply current	Pin1&Pin3: 1.6A per channel
Input type	PNP sensors, mechanical switches, dry contacts, etc..
Input delay	1.6 ms
Output channels	Max. 8 (8*Pin2)
Output current	Max. 2A per channel
Output type	Lamps, solenoidvalve, etc..
Output frequency	Resistive load 100Hz, Inductive load 5Hz

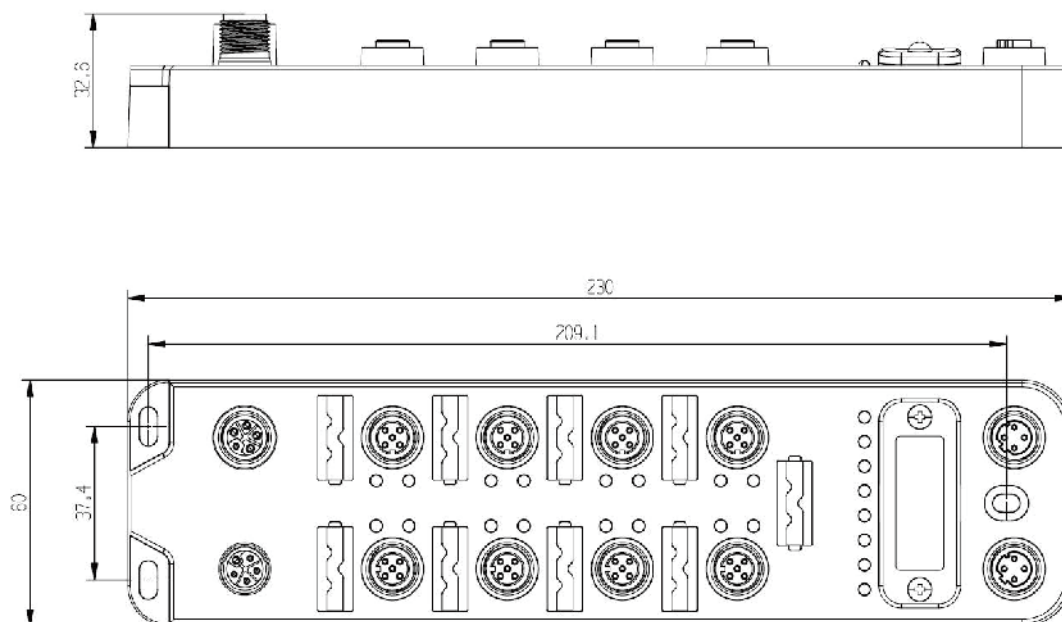
Diagnostics

Communication indication	LED indication, Communication message
Voltage detection	Support, Low voltage alarm
Short-circuit & Overload	Support, LED indication

General data

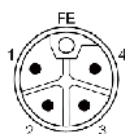
Housing material	Casting Zinc Alloy
Protection	IP67
Temperature	Operating -25...+70 °C, Storage -40...+85 °C
Dimensions (W*H*D)	60x230x37.8 mm

Dimensions drawing



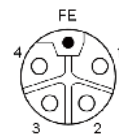
Voltage supply drawing

Power IN
(Male)



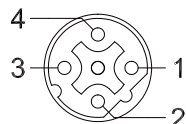
- 1 - System/Input supply_Us+
- 2 - Auxiliary supply_Ua-
- 3 - System/Input supply_Us-
- 4 - Auxiliary supply_Ua+
- 5 - Function earth_FE

Power OUT
(Female)



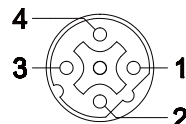
Fieldbus drawing

BUS IN
(Female)

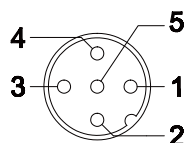


- 1 - Transmit TD+
- 2 - Receive RD+
- 3 - Transmit TD-
- 4 - Receive RD-

BUS OUT
(Female)



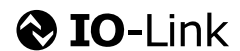
I/O Port drawing



- Class-A Port
(Female)
- 1 - Power supply_24V+
 - 2 - Digital IN/OUT
 - 3 - Power supply_GND
 - 4 - IO-Link or Digital IN
 - 5 - Protective earth_PE

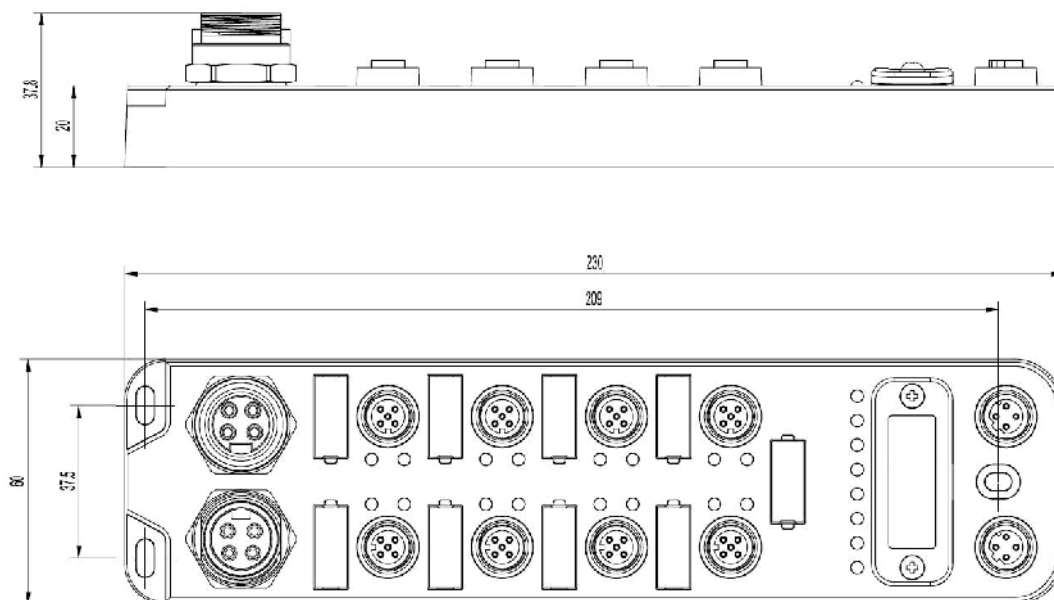
IO-Link Metal Housing Master

- IO-Link Version 1.1.3
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A
- Multiprotocol for Ethernet
- Metal housing

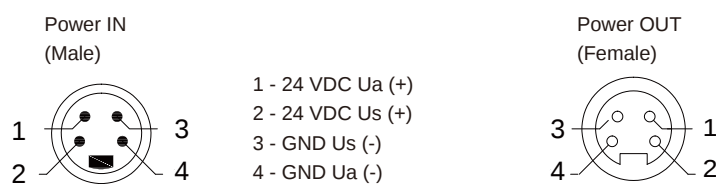


Ordering data	
Product type	FCEN-8LKM-8A-MP4
Description	8 IO-Link ports
Communication	
Protocol	EtherNet/IP , Profinet
Operating modes	Auto-negotiation, Auto-MDI/MDI-X
Transfer rate	10/100 Mbps
Addressing	DHCP, BOOTP
Power supply	
Supply voltage	24 VDC(18...30 VDC)
Self consumption	Max. 200mA
System&Input supply	Us, Max. 8A
Output supply	Ua, Max. 8A
Electrical isolation	Us and Ua: 24V separated, 0V connected
Connections	
Power supply	2 x 7/8" 4pin, Male+Female
Fieldbus	2 x M12 D-code 4pin, Female
Signals	8 x M12 A-code 5pin, Female
Interface	
IO-Link ports	8
IO-Link type	8*Class-A
IO-Link version	IO-Link V1.1.3
IO-Link communication rates	COM1(4.8kbps), COM2(38.4kbps), COM3(230.4kbps)
Input channels	Max. 16 (8*Pin4+8*Pin2)
Input supply current	Pin1&Pin3: 1.6A per channel
Input type	PNP sensors, mechanical switches, dry contacts, etc..
Input delay	1.6 ms
Output channels	Max. 8 (8*Pin2)
Output current	Max. 2A per channel
Output type	Lamps, solenoidvalve, etc..
Output frequency	Resistive load 100Hz, Inductive load 5Hz
Diagnostics	
Communication indication	LED indication, Communication message
Voltage detection	Support, Low voltage alarm
Short-circuit & Overload	Support, LED indication
General data	
Housing material	Casting Zinc Alloy
Protection	IP67
Temperature	Operating -25...+70 °C, Storage -40...+85 °C
Dimensions (W*H*D)	60x230x37.8 mm

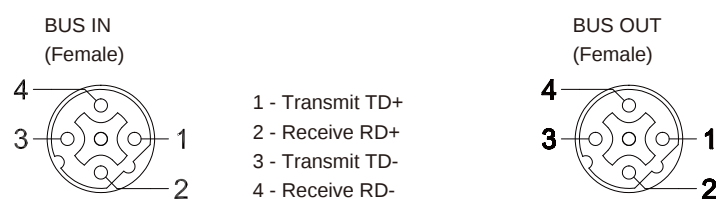
Dimensions drawing



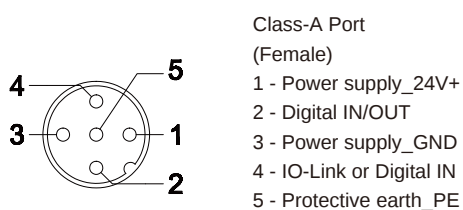
Voltage supply drawing



Fieldbus drawing

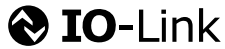


I/O Port drawing



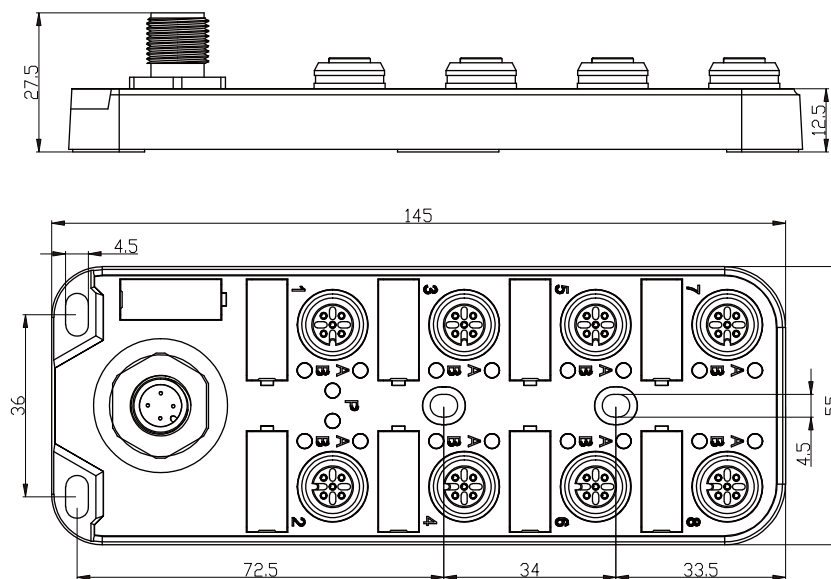
IO-Link Sensor Hub

- IO-Link Version 1.1.3
- Support rates: COM2
- IO-Link port: Class-A

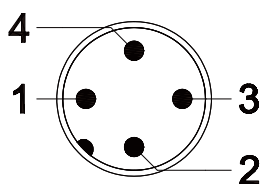


Ordering data				
Product type	LKHA-1600P-M12	LKHA-0808P-M12	LKHA-088UP-M12	LKHA-16UP-M12
Description	16DI, Class-A, 8*M12	8DI+8DO, Class-A, 8*M12	8DI+8DIO, Class-A, 8*M12	16DI/DO, Class-A, 8*M12
Connections				
IO-Link	Class-A: 1 x M12 A-code 4-pin, Male			
Power supply	Included in IO-Link interface			
Signals	8 x M12 A-code 5-pin, Female			
Interface				
Input channels	16	8	Max. 16	Max. 16
Input supply current	Max. 200 mA per channel,Sum 1.6 A			
Input type	PNP sensors, mechanical switches, dry contacts, etc..			
Input delay	1.6 ms			
Output channels	-	8	Max. 8	Max. 16
Output current	Max. 500 mA per channel, 2 A in total			
Output type	Lamps, solenoidvalve, etc..			
Output frequency	Resistive load 100Hz, Inductive load 5Hz			
Diagnostics				
Communication indication	LED indication, Communication message			
Voltage detection	Support, Low voltage alarm			
Short-circuit & Overload	Support, LED indication			
General data				
Protection	IP67			
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C			
Dimensions (W*H*D)	55 x 145 x 28 mm			

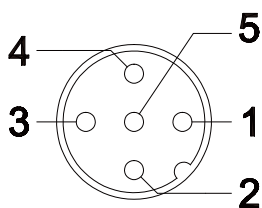
Dimensions drawing



Interface drawing



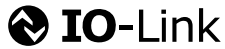
Class-A Port
(Male)
1-Power supply_24V+
2-Output supply_P24
3-Power supply_GND
4-IO-Link



I/O Port
(Female)
1-Power supply_24V+
2-Signal IN/OUT_B
3-Power supply_GND
4-Signal IN/OUT_A
5-Protective earth_PE

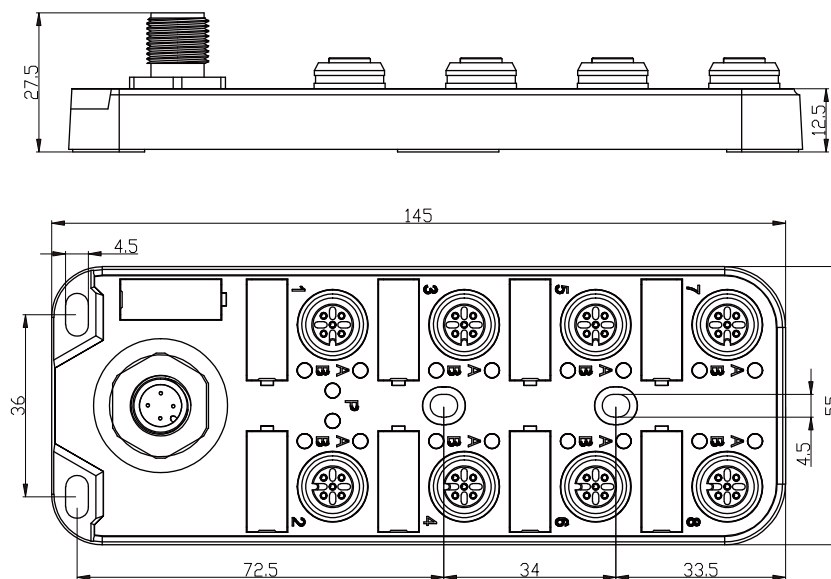
IO-Link Sensor Hub

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class-A
- NPN type I/O signal

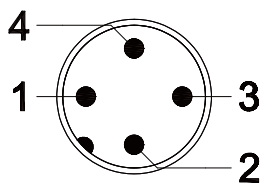


Ordering data			
Product type	LKHA-1600N-M12	LKHA-088UN-M12	LKHA-16UN-M12
Description	16DI, Class-A, 8*M12	8DI+8DIO, Class-A, 8*M12	16DI/DO, Class-A, 8*M12
Connections			
IO-Link	Class-A: 1 x M12 A-code 4-pin, Male		
Power supply	Included in IO-Link interface		
Signals	8 x M12 A-code 5-pin, Female		
Interface			
Input channels	16	Max. 16	Max. 16
Input supply current	Max. 200 mA per channel,Sum 1.6 A		
Input type	NPN sensors, mechanical switches, dry contacts, etc..		
Input delay	1.6 ms		
Output channels	-	Max. 8	Max. 16
Output current	Max. 500 mA per channel, Sum 2 A		
Output type	Lamps, solenoidvalve, etc..		
Output frequency	Resistive load 100 Hz, Inductive load 5 Hz		
Diagnostics			
Communication indication	LED indication, Communication message		
Voltage detection	Support, Low voltage alarm		
Short-circuit & Overload	Support, LED indication		
General data			
Protection	IP67		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	55 x 145 x 28 mm		

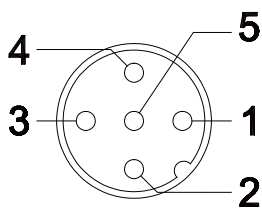
Dimensions drawing



Interface drawing



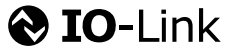
Class-A Port
(Male)
1-Power supply_24V+
2-Output supply_P24
3-Power supply_GND
4-IO-Link



I/O Port
(Female)
1-Power supply_24V+
2-Signal IN/OUT_B
3-Power supply_GND
4-Signal IN/OUT_A
5-Protective earth_PE

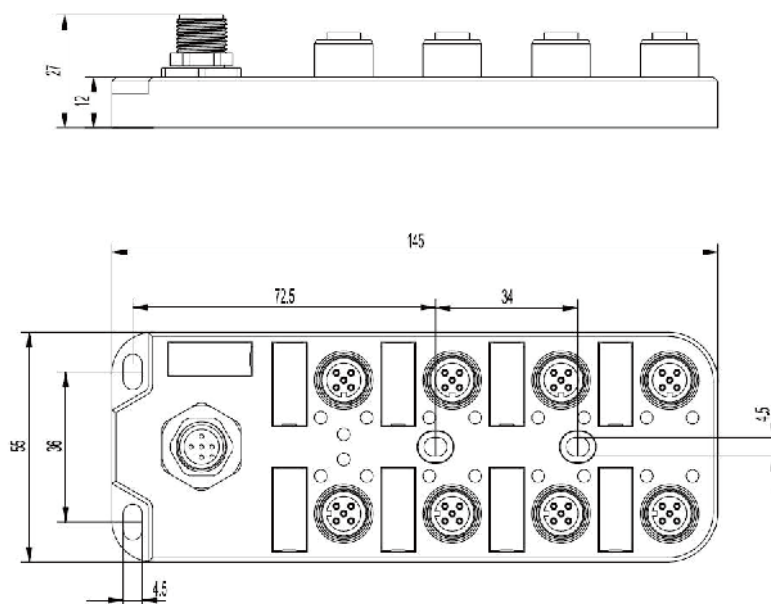
IO-Link Sensor Hub

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class-A
- PNP type I/O signal
- Metal housing

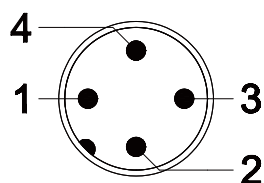


Ordering data	
Product type	LKHA-16UP-M12G
Description	16 DI/DO, Class-A, 8*M12
Connections	
IO-Link	Class-A: 1 x M12 A-code 4pin, Male
Power supply	Included in IO-Link interface
Signals	8 x M12 A-code 5pin, Female
Interface	
Input channels	Max. 16
Input supply current	Max. 200mA per channel, 1.6A in total
Input type	PNP sensors, mechanical switches, dry contacts, etc..
Input delay	1.6 ms
Output channels	Max. 16
Output current	Max. 500mA per channel, 2A in total
Output type	Lamps, solenoidvalve, etc..
Output frequency	Resistive load 100Hz, Inductive load 5Hz
Diagnostics	
Communication indication	LED indication, Communication message
Voltage detection	Support, Low voltage alarm
Short-circuit & Overload	Support, LED indication
General data	
Housing material	Casting Zinc Alloy
Protection	IP67
Temperature	Operating -25...+70 °C, Storage -40...+85 °C
Dimensions (W*H*D)	55x145x27 mm

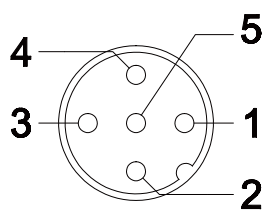
Dimensions drawing



Interface drawing



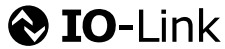
Class-A Port
(Male)
1-Power supply_24V+
2-Output supply_P24
3-Power supply_GND
4-IO-Link



I/O Port
(Female)
1-Power supply_24V+
2-Signal IN/OUT_B
3-Power supply_GND
4-Signal IN/OUT_A
5-Protective earth_PE

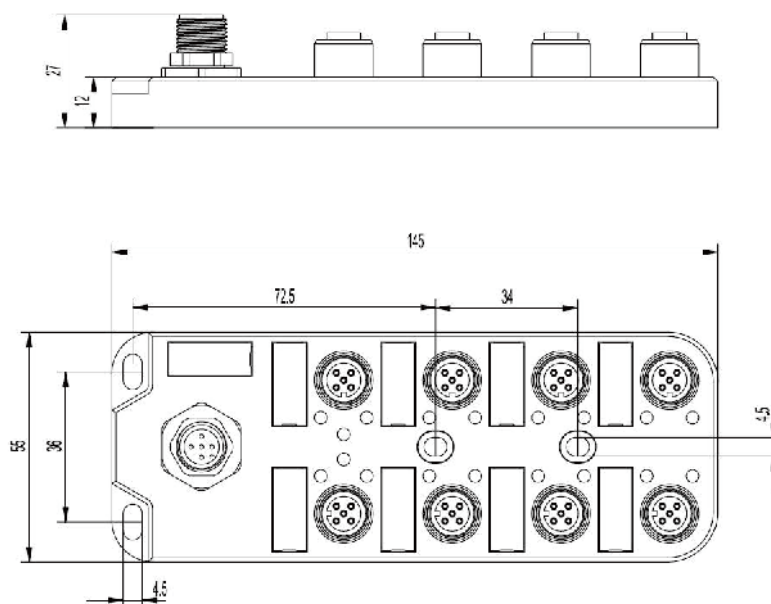
IO-Link Sensor Hub

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class-A
- NPN type I/O signal
- Metal housing

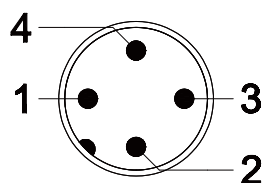


Ordering data	
Product type	LKHA-16UN-M12G
Description	16 DI/DO, Class-A, 8*M12
Connections	
IO-Link	Class-A: 1 x M12 A-code 4pin, Male
Power supply	Included in IO-Link interface
Signals	8 x M12 A-code 5pin, Female
Interface	
Input channels	Max. 16
Input supply current	Max. 200mA per channel, 1.6A in total
Input type	NPN sensors, mechanical switches, dry contacts, etc..
Input delay	1.6 ms
Output channels	Max. 16
Output current	Max. 500mA per channel, 2A in total
Output type	Lamps, solenoidvalve, etc..
Output frequency	Resistive load 100Hz, Inductive load 5Hz
Diagnostics	
Communication indication	LED indication, Communication message
Voltage detection	Support, Low voltage alarm
Short-circuit & Overload	Support, LED indication
General data	
Housing material	Casting Zinc Alloy
Protection	IP67
Temperature	Operating -25...+70 °C, Storage -40...+85 °C
Dimensions (W*H*D)	55x145x27 mm

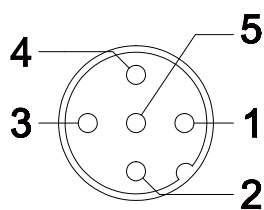
Dimensions drawing



Interface drawing



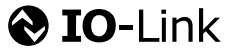
Class-A Port
(Male)
1-Power supply_24V+
2-Output supply_P24
3-Power supply_GND
4-IO-Link



I/O Port
(Female)
1-Power supply_24V+
2-Signal IN/OUT_B
3-Power supply_GND
4-Signal IN/OUT_A
5-Protective earth_PE

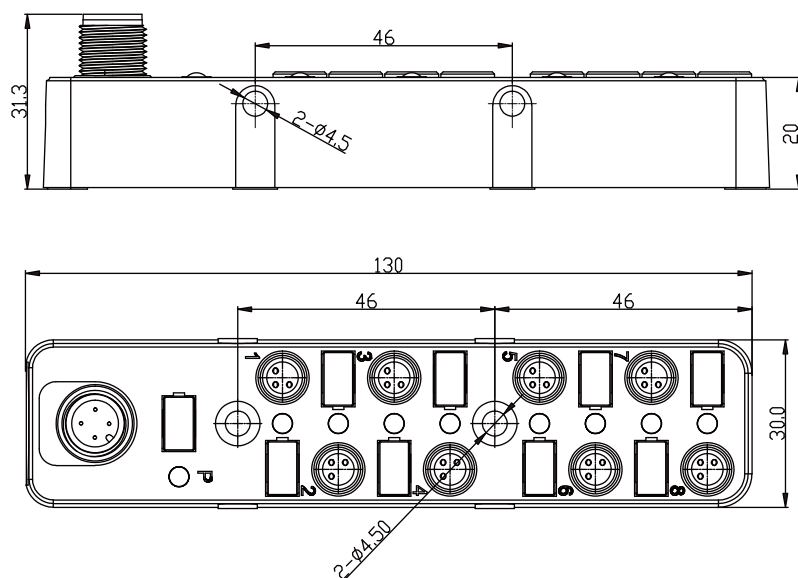
IO-Link Sensor Hub

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class-A

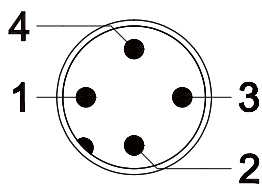


Ordering data		
Product type	LKHA-0800P-M8	LKHA-08UP-M8
Description	8DI, Class-A, 8*M8	8DI/DO, Class-A, 8*M8
Connections		
IO-Link	Class-A: 1 x M12 A-code 4-pin, Male	
Power supply	Included in IO-Link interface	
Signals	8 x M8 3-pin, Female	
Interface		
Input channels	8	Max. 8
Input supply current	Max. 200 mA per channel, Sum 1.6 A	
Input type	PNP sensors, mechanical switches, dry contacts, etc..	
Input delay	1.6 ms	
Output channels	-	Max. 8
Output current	Max. 500 mA per channel, Sum 2 A	
Output type	Lamps, solenoidvalve, etc..	
Output frequency	Resistive load 100 Hz, Inductive load 5 Hz	
Diagnostics		
Communication indication	LED indication, Communication message	
Voltage detection	Support, Low voltage alarm	
Short-circuit & Overload	Support, LED indication	
General data		
Protection	IP67	
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C	
Dimensions (W*H*D)	30 x 130 x 31 mm	

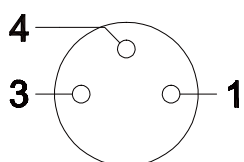
Dimensions drawing



Interface drawing



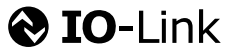
Class-A Port
(Male)
1-Power supply_24V+
2-Output supply_P24
3-Power supply_GND
4-IO-Link



I/O Port
(Female)
1-Power supply_24V+
3-Power supply_GND
4-Signal IN/OUT

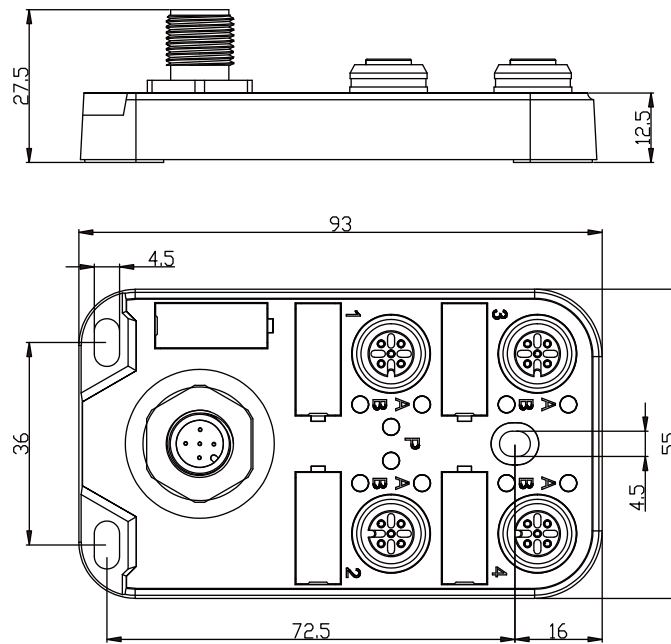
IO-Link Sensor Hub

- IO-Link Version 1.1.3
- Support rates: COM2
- IO-Link ports: Class-A

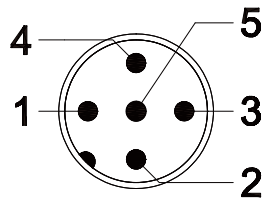


Ordering data		
Product type	LKHA-0800P-M12	LKHA-08UP-M12
Description	8DI, Class-A, 4*M12	8DI/DO, Class-A, 4*M12
Connections		
IO-Link	Class-A: 1 x M12 A-code 4-pin, Male Class-B: 1 x M12 A-code 5-pin, Male	
Power supply	Included in IO-Link interface	
Signals	4 x M12 A-code 4-pin, Male	
Interface		
Input channels	8	Max. 8
Input supply current	Max. 200 mA per channel, Sum 1.6 A	
Input type	PNP sensors, mechanical switches, dry contacts, etc..	
Input delay	1.6 ms	
Output channels	-	Max. 8
Output current	Max. 500 mA per channe, Sum 2 A	
Output type	Lamps, solenoidvalve, etc..	
Output frequency	Resistive load 100 Hz, Inductive load 5 Hz	
Diagnostics		
Communication indication	LED indication, Communication message	
Voltage detection	Support, Low voltage alarm	
Short-circuit & Overload	Support, LED indication	
General data		
Protection	IP67	
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C	
Dimensions (W*H*D)	55 x 93 x 28 mm	

Dimensions drawing



Interface drawing

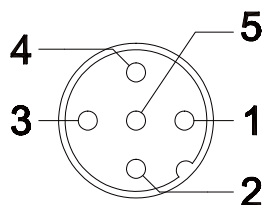


Class - A Port (Male)

- 1 - Power supply_24V+
- 2 - Output supply_P24
- 3 - Power supply_GND
- 4 - IO-Link

Class - B Port (Male)

- 1 - Power supply_24V+
- 2 - Output supply_P24
- 3 - Power supply_GND
- 4 - IO-Link
- 5 - Output supply N24

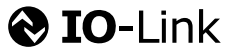


I/O Port(Female)

- 1-Power supply_24V+
- 2-Signal IN/OUT_B
- 3-Power supply_GND
- 4-Signal IN/OUT_A
- 5-Protective earth_PE

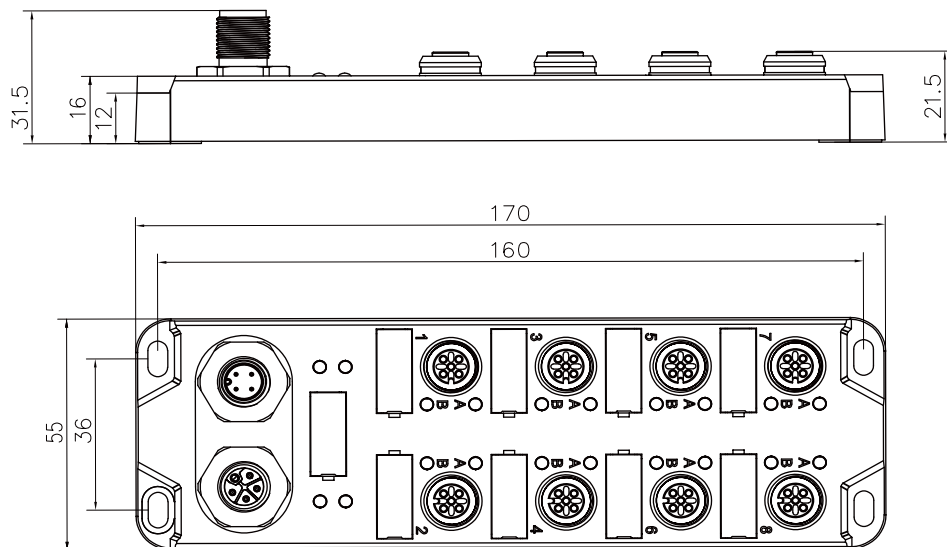
IO-Link Sensor Hub with Auxiliary Power Supply

- IO-Link Version 1.1.3
- Support rates: COM2
- L-CODE auxiliary power supply with greater load driving capacity

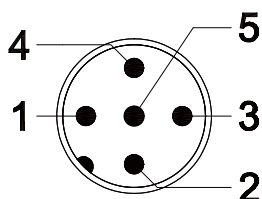


Ordering data		
Product type	LKHA-0808P-M12-A	LKHA-0016P-M12-A
Description	8DI/DO, Class-A, 8*M12	16DO, Class-A, 8*M12
Interface		
IO-Link	1 x M12 A-code 4-pin, Male	
Power Supply	M12,L-CODE	
Signal	8 x M12 A-code 4-pin, Female	
Electrical parameters		
Input Channels	8	—
Input supply current	Max. 200 mA per channel, Sum 1.6 A	
Input type	PNP sensors, mechanical switches, dry contacts, etc..	
Input delay	1.6 ms	
Output Channels	8	16
Output current	Max. 2 A per channel, Sum 9 A	
Output type	Hydraulic valves, etc	
Output frequency	Resistive load 100Hz, Inductive load 5Hz	
Diagnostics		
Communication	LED indication, Communication message	
Voltage detection	Support, Low voltage alarm	
Short-circuit & Overload	Support, LED indication	
General data		
Protection degree	IP67	
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C	
Dimensions	55 x 170 x 31.5 mm	

Dimensions drawing

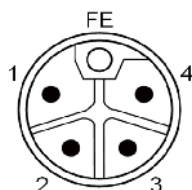


Interface drawing



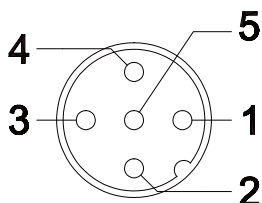
IO-Link Class-A Port(Male)

- 1-Power supply_24V+
- 2-Output supply_P24
- 3-Power supply_GND
- 4-IO-Link



Aux power supply Port, L-CODE, Male

- 1 - n.c
- 2 - Aux power supply N24
- 3 - n.c
- 4 - Aux power supply P24
- 5 - Function Earth FE

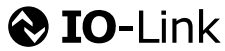


I/O Port(Female)

- 1-Power supply_24V+
- 2-Signal IN/OUT_B
- 3-Power supply_GND
- 4-Signal IN/OUT_A
- 5-Protective earth_PE

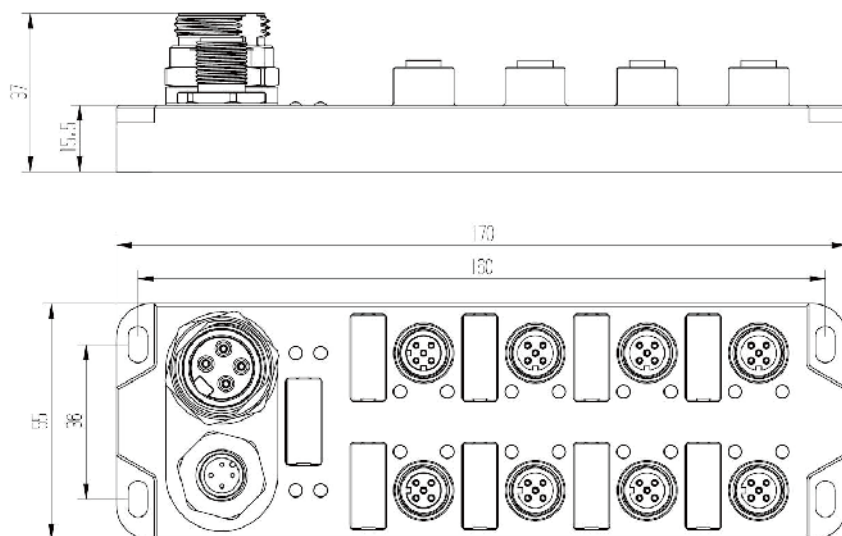
IO-Link Sensor Hub with Auxiliary Power Supply

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- Auxiliary power supply
- PNP type I/O signal
- Metal housing

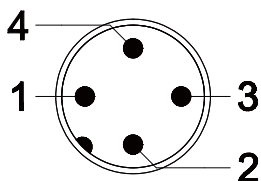


Ordering data	
Product type	LKHA-16UP-M12G-AP4
Description	16 DI/DO, Class-A, 8*M12
Interface	
IO-Link	1 x M12 A-code 4pin, Male
Power Supply	1 x 7/8" 4pin, Male
Signal	8 x M12 A-code 4pin, Female
Electrical parameters	
Input Channels	Max.16
Input supply current	Max. 200mA per channel, 1.6A in total
Input type	PNP sensors, mechanical switches, dry contacts, etc..
Input delay	1.6 ms
Output Channels	Max.16
Output current	Max. 2A per channel, 8A in total
Output type	Lamps, solenoidvalves, etc..
Output frequency	Resistive load 100Hz, Inductive load 5Hz
Diagnostics	
Communication	LED indication, Communication message
Voltage detection	Support, Low voltage alarm
Short-circuit & Overload	Support, LED indication
General data	
Housing material	Casting Zinc Alloy
Protection degree	IP67
Temperature	Operating -25...+70 °C, Storage -40...+85 °C
Dimensions	55x170x33.4 mm

Dimensions drawing

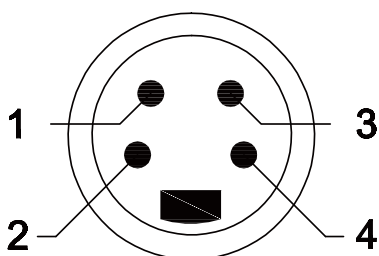


Interface drawing



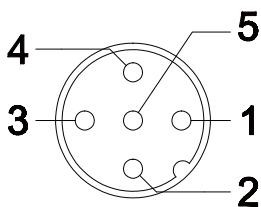
IO-Link Class-A Port (Male)

- 1 - Power supply_24V+
- 2 - n.c
- 3 - Power supply_GND
- 4 - IO-Link



Auxiliary Power Port (Male)

- 1 - Aux power supply_Ua(+)
- 2 - Sensor supply_Us2(+)
- 3 - Sensor supply_Us2(-)
- 4 - Aux power supply_Ua(-)

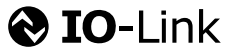


I/O Port (Female)

- 1 - Power supply_24V+
- 2 - Signal IN/OUT_B
- 3 - Power supply_GND
- 4 - Signal IN/OUT_A
- 5 - Function earth_FE

IO-LINK IP20 Hubs-32 Digital I/O modules

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O terminal blocks

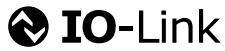


Ordering data			
Product Model	LKHA-3200P-QC	LKHA-3200P-TC	LKHA-1616P-QC
Description	32DI,PNP,interface 4-PIN M12	32DI,PNP,interface 4-Pos terminals	16DI/16DO,PNP,interface 4-PIN M12
Product Model	LKHA-3200N-QC	LKHA-3200N-TC	LKHA-1616N-QC
Description	32DI,NPN,interface 4-PIN M12	32DI,NPN,interface 4-Pos terminals	16DI/16DO,NPN,interface 4-PIN M12
Electrical connection			
IO-Link	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male
Power supply	IO-LINK interface+Power supply terminals(Us+Ua)		
Input/Output	4× 10 position I/O terminal blocks,Push-in spring connection,Pluggable		
Electrical data			
Input	32	32	16
Input supply current	Max 200 mA per channel,Sum 1.6 A (without Ua) / 6 A (with Ua)		Max 200 mA per channel,Sum 1.6 A
Input delay	0.8 ms,1.6 ms,3.2 ms or 20 ms ,Parameterizable configuration		
Output	-	-	16
Output current	-	-	
Output type	-	-	
Output frequency	-	-	
Diagnostics			
Communication status	LED indication, Communication message		
Voltage detection	LED indication		
Short-circuit & Overload	LED indication		
General data			
Protection Class	IP20		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	120 mm × 70 mm × 41.5 mm		

LKHA-1616P-TC	LKHA-0032P-QC	LKHA-0032P-TC
16DI/16DO,PNP,interface 4-Pos terminals	32DO,PNP,interface 4-PIN M12	32DO,PNP,interface 4-Pos terminals
LKHA-1616N-TC	LKHA-0032N-QC	LKHA-0032N-TC
16DI/16DO,NPN,interface 4-Pos terminals	32DO,NPN,interface 4-PIN M12	32DO,NPN,interface 4-Pos terminals
1×4-Pos terminals	1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals
IO-LINK interface+Power supply terminals(Us+Ua)		
4× 10 position I/O terminal blocks,Push-in spring connection,Pluggable		
16	—	—
Max 200 mA per channel,Sum 1.6 A	—	—
	—	—
16	32	32
Max 500 mA per channel, Sum 6 A		
Lamps, solenoidvalve, etc..		
Resistive load 100 Hz, Inductive load 5 Hz		
LED indication, Communication message		
LED indication		
LED indication		
IP20		
Operating -25 ... +70 °C, Storage -40 ... +85 °C		
120 mm × 70 mm × 41.5 mm		

IO-LINK IP20 Hubs-32 Digital I/O modules

- IO-Link Version 1.1.3
- Transfer rate: COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O and Aux-plugs(24 V and 0 V) terminal blocks

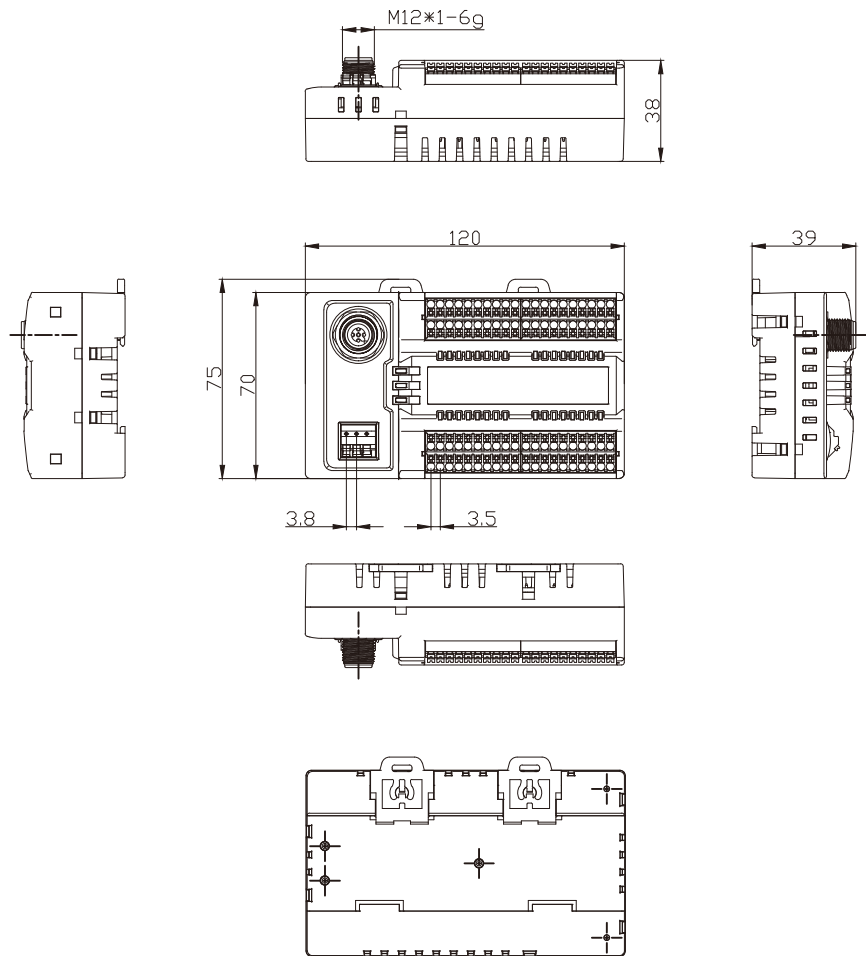


Ordering data			
Product Model	LKHA-3200P-QA	LKHA-3200P-TA	LKHA-1616P-QA
Description	32DI,PNP,interface 4-PIN M12	32DI,PNP,interface 4-Pos terminals	16DI/16DO,PNP,interface 4-PIN M12
Product Model	LKHA-3200N-QA	LKHA-3200N-TA	LKHA-1616N-QA
Description	32DI,NPN,interface 4-PIN M12	32DI,NPN,interface 4-Pos terminals	16DI/16DO,NPN,interface 4-PIN M12
Electrical connection			
IO-Link	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male
Power supply	IO-LINK interface+Power supply terminals(Us+Ua)		
Input/Output	4× 10 position I/O terminal blocks+4×10 position Aux-plugs(24V and 0V) terminal blocks,Push-in spring connection,Pluggable		
Electrical data			
Input	32	32	16
Input supply current	Max 200 mA per channel, Sum 1.6 A (without Ua) / 6 A (with Ua)		Max 200 mA per
Input delay	0.8 ms,1.6 ms,3.2 ms or 20 ms, Parameterizable configuration		0.8 ms,1.6 ms, 3.2 ms or 20 ms,
Output	-	-	16
Output current	-	-	
Output type	-	-	
Output frequency	-	-	
Diagnostics			
Communication status	LED indication, Communication message		
Voltage detection	LED indication		
Short-circuit & Overload	LED indication		
General data			
Protection Class	IP20		
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C		
Dimensions (W*H*D)	120 mm × 70 mm ×41.5 mm		

LKHA-1616P-TA	LKHA-0032P-QA	LKHA-0032P-TA
16DI/16DO,PNP,interface 4-Pos terminals	32DO,PNP,interface 4-PIN M12	32DO,PNP,interface 4-Pos terminals
LKHA-1616N-TA	LKHA-0032N-QA	LKHA-0032N-TA
16DI/16DO,NPN,interface 4-Pos terminals	32DO,NPN,interface 4-PIN M12	32DO,NPN,interface 4-Pos terminals
1×4-Pos terminals	1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals
IO-LINK interface+Power supply terminals(Us+Ua)		
4× 10 position I/O terminal blocks+4×10 position Aux-plugs(24V and 0V) terminal blocks,Push-in spring connection,Pluggable		
16	—	—
channel, Sum 1.6 A	—	—
Parameterizable configuration	—	—
16	32	32
Max 500 mA per channe, Sum 6 A		
Lamps, solenoidvalve, etc..		
Resistive load 100 Hz, Inductive load 5 Hz		
LED indication, Communication message		
LED indication		
LED indication		
IP20		
Operating -25 ... +70 °C, Storage -40 ... +85 °C		
120 mm × 70 mm × 41.5 mm		

IO-LINK IP20 Hubs-32 Digital I/O modules

Dimension drawing and terminal definition-PNP



No.	1	2	3	4	5	6	7	8
Definition	1L	i1	i2	i3	i4	i5	i6	i7

No.	1	2	3	4	5	6	7	8
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7

24V+ GND PE
2L 2M PE

No.	1	2	3	4	5	6	7	8
Definition	1L	i1	i2	i3	i4	i5	i6	i7

No.	1	2	3	4	5	6	7	8
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7

24V+ GND PE
2L 2M PE

No.	1	2	3	4	5	6	7	8
Definition	1L	i1	i2	i3	i4	i5	i6	i7

No.	1	2	3	4	5	6	7	8
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7

24V+ GND PE
2L 1M PE

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M

LKHA-1616P-QC

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M

24V+ GND PE
2L 2M PE

1 - 1L 24V+(BN)
2 - nc
3 - 1M GND(BU)
4 - C/Q(BK)

No.	1	2	3	4	5	6	7	8
Definition	1L	i1	i2	i3	i4	i5	i6	i7

No.	1	2	3	4	5	6	7	8
Definition	1L	i17	i18	i19	i20	i21	i22	i23

24V+ GND PE
2L 2M PE

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M

LKHA-1616P-QA

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M

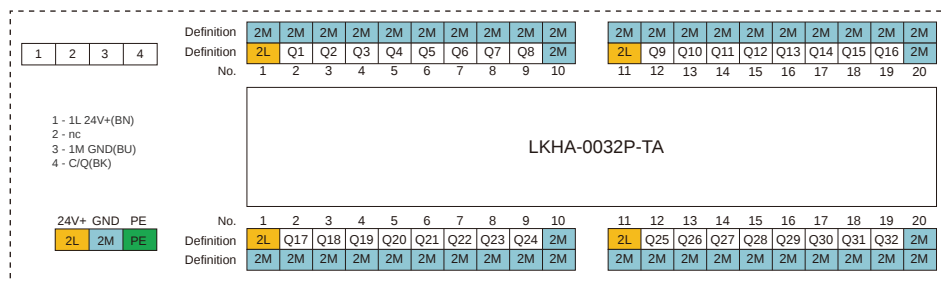
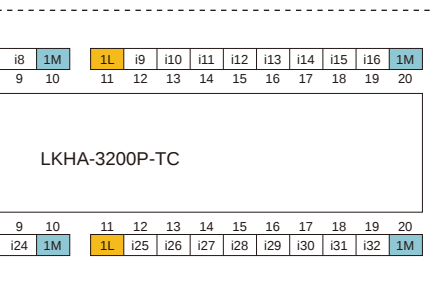
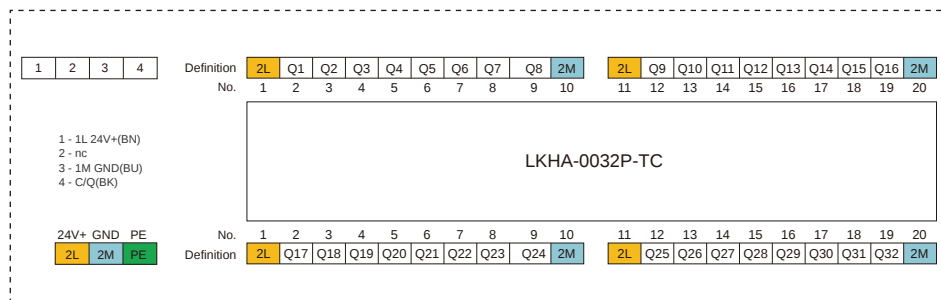
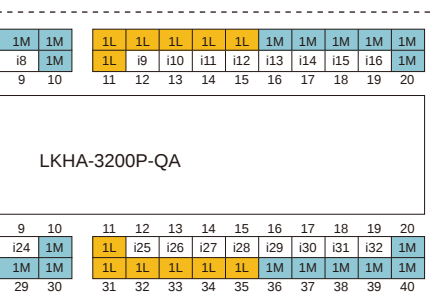
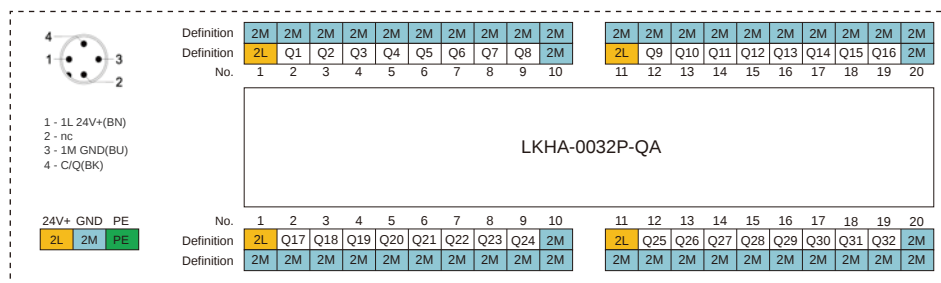
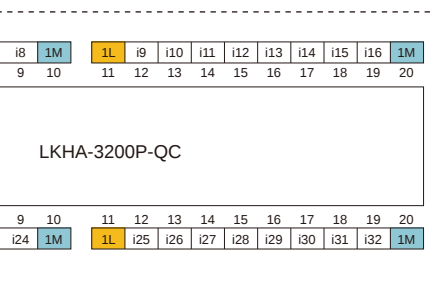
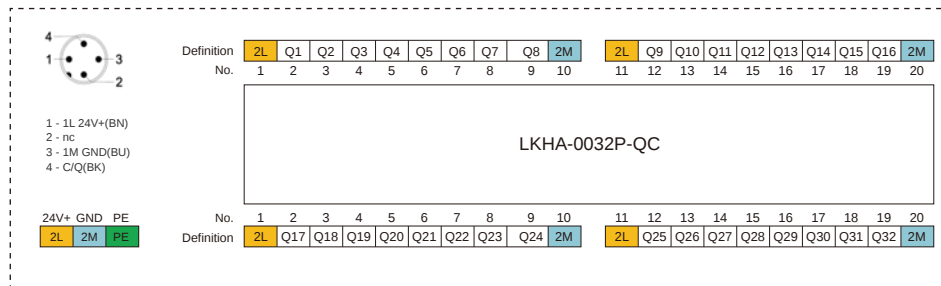
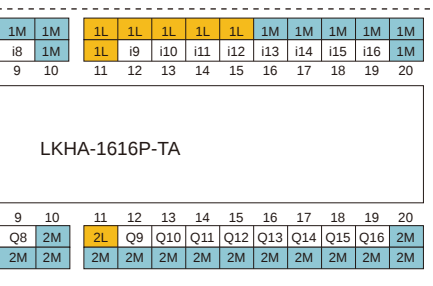
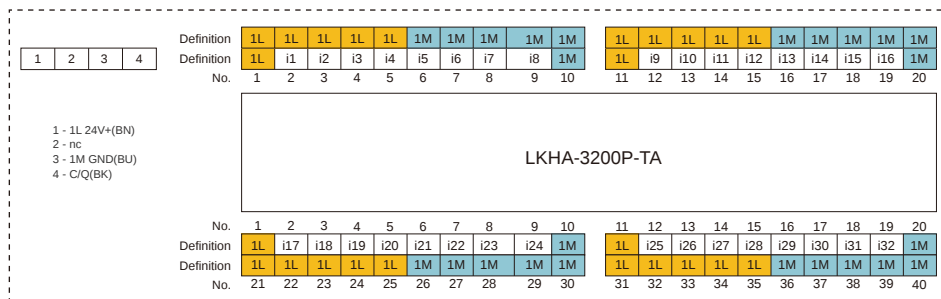
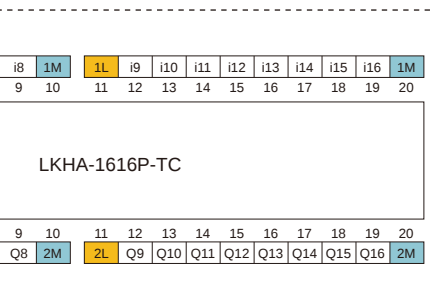
24V+ GND PE
2L 2M PE

1 - 1L 24V+(BN)
2 - nc
3 - 1M GND(BU)
4 - C/Q(BK)

No.	1	2	3	4	5	6	7	8
Definition	1L	i1	i2	i3	i4	i5	i6	i7

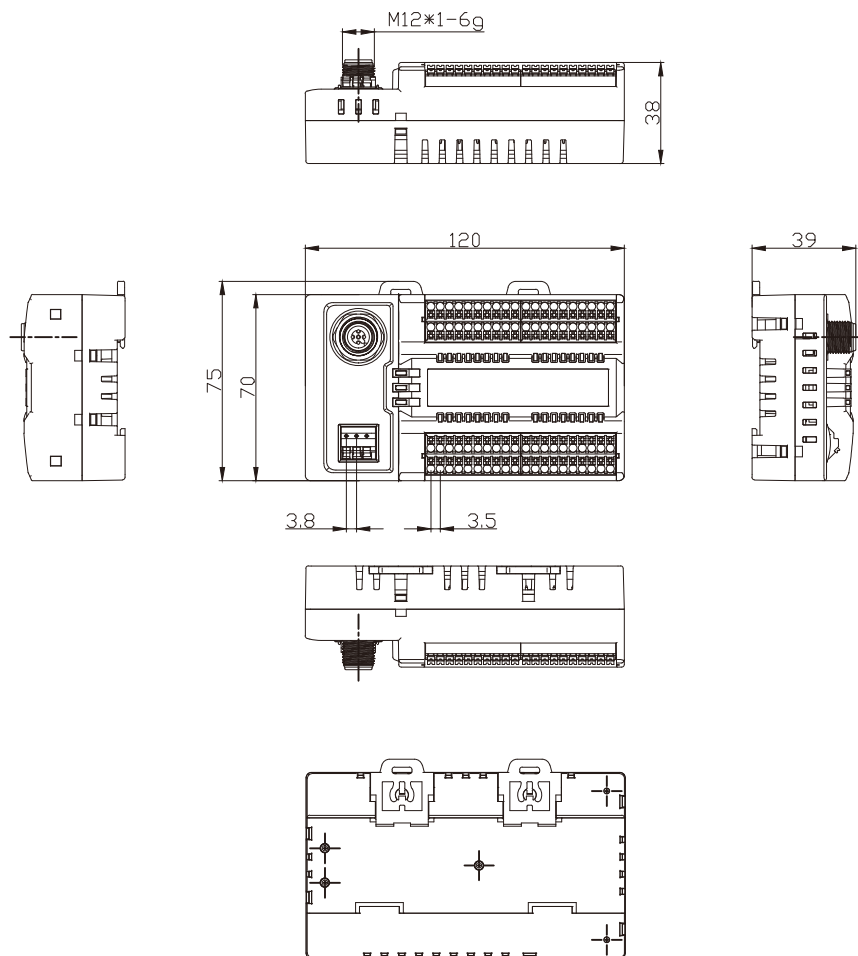
No.	1	2	3	4	5	6	7	8
Definition	1L	i17	i18	i19	i20	i21	i22	i23

24V+ GND PE
1L 1M PE



IO-LINK IP20 Hubs-32 Digital I/O modules

Dimension drawing and terminal definition-NPN



1	2	3	4	Definition	1L	i1	i2	i3	i4	i5	i6	i7	
					No.	1	2	3	4	5	6	7	8
1 - 1L 24V+(BN) 2 - nc 3 - 1M GND(BU) 4 - C/Q(BK)													
					No.	1	2	3	4	5	6	7	8
					Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7

				Definition	1L	1L	1L	1L	1L	1M	1M	1M
1	2	3	4	Definition	1L	i1	i2	i3	i4	i5	i6	i7
				No.	1	2	3	4	5	6	7	8
1 - 1L 24V+(BN)												
2 - nc												
3 - 1M GND(BU)												
4 - C/Q(BK)												
24V+ GND PE				No.	1	2	3	4	5	6	7	8
2L	2M	PE		Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7
				Definition	2L	2L	2L	2L	2L	2L	2L	2L

	Definition	1L	i1	i2	i3	i4	i5	i6	i7
	No.	1	2	3	4	5	6	7	8
1 - 1L 24V+(BN) 2 - nc 3 - 1M GND(BU) 4 - C/Q(BK)									

24V+	GND	PE	No.	1	2	3	4	5	6	7	8
2L	2M	PE	Definition	1L	i17	i18	i19	i20	i21	i22	i23

Definition

No.

1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

1 - 1L 24V+(BN)

2 - nc

3 - 1M GND(BU)

4 - C/Q(BK)

LKHA-1616N-QC

24V+ GND PE

No.

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M

Definition

	Definition	1L	1L	1L	1L	1L	1M	1M	1M
	Definition	1L	i1	i2	i3	i4	i5	i6	i7
	No.	1	2	3	4	5	6	7	8
1 - 1L 24V+(BN) 2 - nc 3 - 1M GND(BU) 4 - C/Q(BK)									
24V+ GND PE	No.	1	2	3	4	5	6	7	8
2L 2M PE	Definition	1L	i17	i18	i19	i20	i21	i22	i23
	Definition	1L	1L	1L	1L	1L	1M	1M	1M
	No.	21	22	23	24	25	26	27	28

Definition

Definition

No.

1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1M
1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M	
1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	

1 - 1L 24V+(BN)

2 - nc

3 - 1M GND(BU)

4 - C/Q(BK)

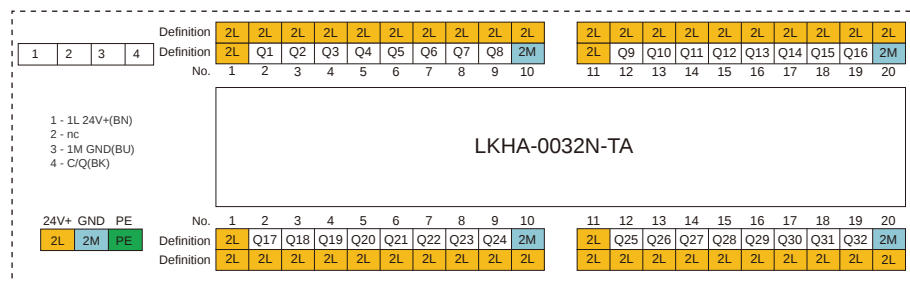
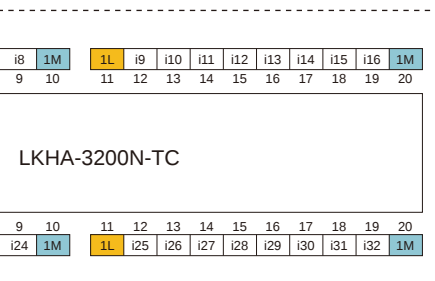
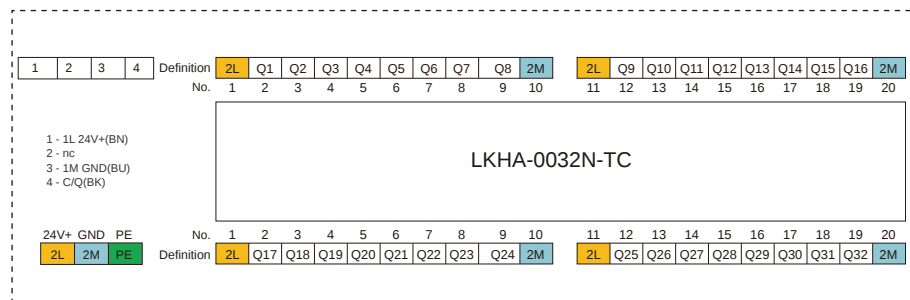
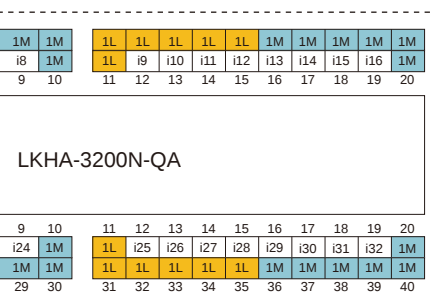
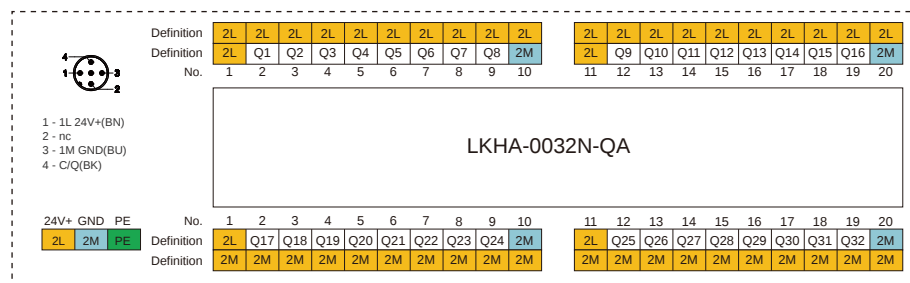
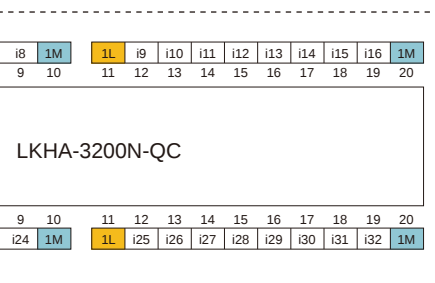
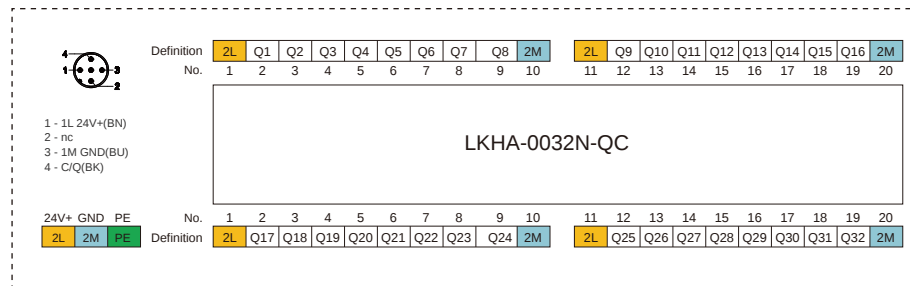
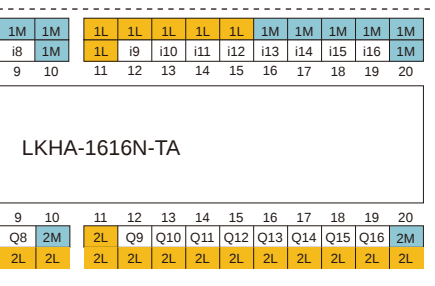
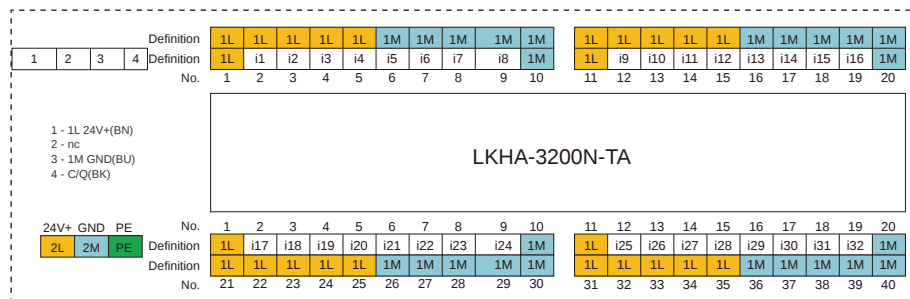
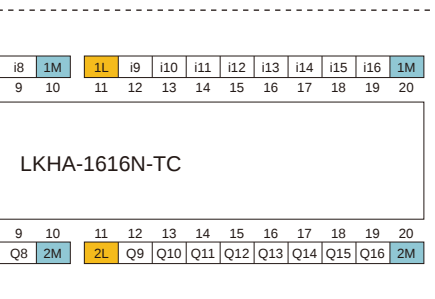
LKHA-1616N-QA

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M
Definition	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L

24V+ GND PE

2L 2M PE

1	2	3	4	Definition	1L	i1	i2	i3	i4	i5	i6	i7
				No.	1	2	3	4	5	6	7	8
1 - 1L 24V+(BN) 2 - nc 3 - 1M GND(BU) 4 - C/Q(BK)												



IO-LINK IP20 Hubs-32 Digital I/O modules

- IO-Link Version 1.1.3
- Transfer rate: COM 2(38.4 kBaud)
- IO-Link ports: Class A
- Pluggable I/O and Aux-plugs(24V and 0V) terminal blocks



Ordering data

Product Model	LKHA-3200P-TS	LKHA-1616P-TS
Description	32DI,PNP,interface 4-Pos terminals	16DI/16DO,PNP,interface 4-Pos terminals
Product Model	LKHA-3200N-TS	LKHA-1616N-TS
Description	32DI,NPN,interface 4-Pos terminals	16DI/16DO,NPN,interface 4-Pos terminals

Electrical Connection

IO-Link	1×4-Pos terminals	1×4-Pos terminals
Power Supply	IO-LINK interface+Power supply terminals	
Input/Output	4× 8position I/O terminal blocks+8×8 position Aux-plugs (24 V and 0 V) terminal blocks, Push-in spring connection, Pluggable	

Electrical data

Input	32	16
Input supply current	Max 200 mA per channel,Sum 1.6 A	
Input delay	0.8 ms,1.6 ms,3.2 ms or 20 ms, Parameterizable configuration	
Output	-	16
Output current	-	Max 500 mA per channel, Sum 6 A
Output type	-	Lamps, solenoidvalve, etc..
Output frequency	-	Resistive load 100 Hz, Inductive load 5 Hz

Diagnostics

Communication	LED indication, Communication message
Voltage detection	LED indication
Short-circuit & Overload	LED indication

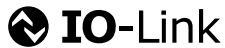
General data

Protection Class	IP20
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C
Dimensions (W*H*D)	120 mm × 70 mm × 41.5 mm

[illegible]

IO-LINK IP20 Hubs-16 Digital I/O modules

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O terminal blocks

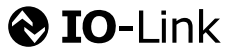


Ordering data		
Product Model	LKHA-1600P-QC	LKHA-1600P-TC
Description	16DI,PNP,interface 4-PIN M12	16DI,PNP,interface 4-Pos terminals
Product Model	LKHA-1600N-QC	LKHA-1600N-TC
Description	16DI,NPN,interface 4-PIN M12	16DI,NPN,interface 4-Pos terminals
Electrical connection		
IO-Link	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals
Power supply	Included in IO-Link interface	
Input/Output	2× 10 position I/O terminal blocks, Push-in spring connection, Pluggable	
Electrical data		
Input	16	16
Input supply current	Max 200 mA per channel, Sum 1.6 A	
Input delay	0.8 ms,1.6 ms,3.2 ms or 20 ms, Parameterizable configuration	
Output	-	-
Output current	-	-
Output type	-	-
Output frequency	-	-
Diagnostics		
Communication status	LED indication, Communication message	
Voltage detection	LED indication	
Short-circuit & Overload	LED indication	
General data		
Protection Class	IP20	
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C	
Dimensions (W*H*D)	91 mm × 70 mm × 38 mm	

LKHA-0808P-QC	LKHA-0808P-TC	LKHA-0016P-QC	LKHA-0016P-TC
8DI/8DO,PNP,interface 4-PIN M12	8DI/8DO,PNP,interface 4-Pos terminals	16DO,PNP,interface 4-PIN M12	16DO,PNP,interface 4-Pos terminals
LKHA-0808N-QC	LKHA-0808N-TC	LKHA-0016N-QC	LKHA-0016N-TC
8DI/8DO,NPN,interface 4-PIN M12	8DI/8DO,NPN,interface 4-Pos terminals	16DO,NPN,interface 4-PIN M12	16DO,NPN,interface 4-Pos terminals
1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals
Included in IO-Link interface			
2× 10 position I/O terminal blocks, Push-in spring connection, Pluggable			
8	8	—	—
Max 200 mA per channel, Sum 1.6 A		—	—
0.8 ms, 1.6 ms, 3.2 ms or 20 ms, Parameterizable configuration		—	—
8	8	16	16
Max 500 mA per channel, Sum 2 A			
Lamps, solenoid valve, etc..			
Resistive load 100 Hz, Inductive load 5 Hz			
LED indication, Communication message			
LED indication			
LED indication			
IP20			
Operating -25 ... +70 °C, Storage -40 ... +85 °C			
91 mm × 70 mm × 38 mm			

IO-LINK IP20 Hubs-16 Digital I/O modules

- IO-Link Version 1.1.3
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O and Aux-plugs(24V and 0V) terminal blocks

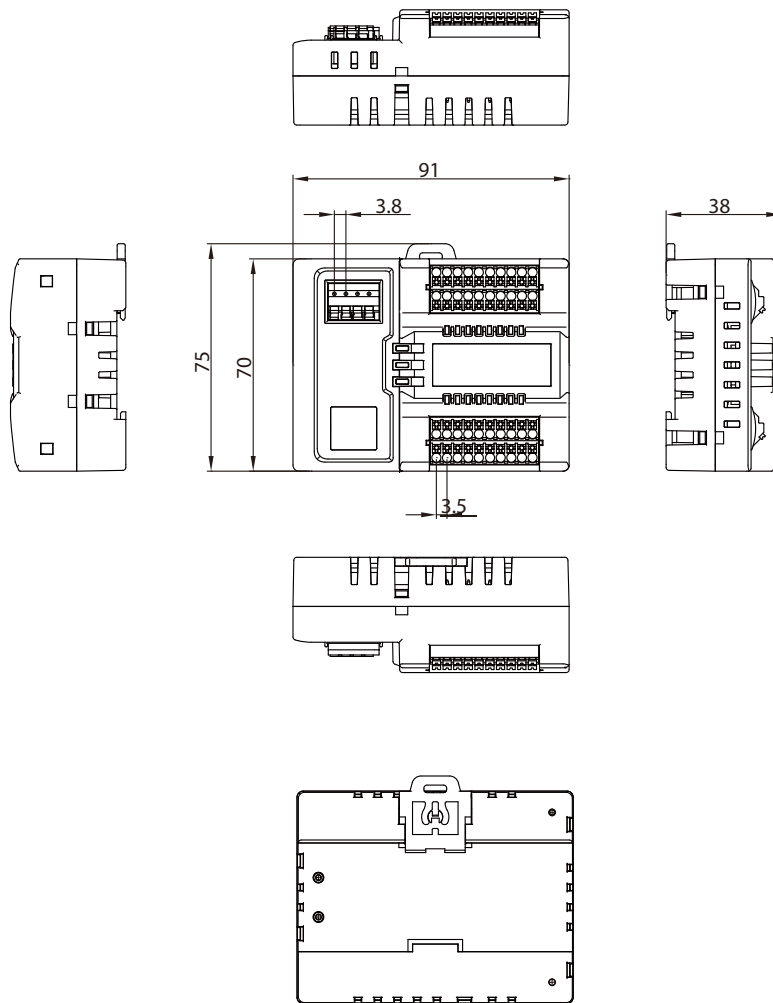


Ordering data		
Product Model	LKHA-1600P-QA	LKHA-1600P-TA
Description	16DI,PNP,interface 4-PIN M12	16DI,PNP,interface 4-Pos terminals
Product Model	LKHA-1600N-QA	LKHA-1600N-TA
Description	16D,NPN,interface 4-PIN M12	16D,NPN,interface 4-Pos terminals
Electrical connection		
IO-Link	1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals
Power supply	Included in IO-Link interface	
Input/Output	2× 10 position I/O terminal blocks+2×10 position Aux-plugs (24V and 0V) terminal blocks,Push-in spring connection,Pluggable	
Electrical data		
Input	16	16
Input supply current	Max 200 mA per channel,Sum 1.6 A	
Input delay	0.8 ms,1.6 ms,3.2 ms or 20 ms, Parameterizable configuration	
Output	-	-
Output current	-	-
Output type	-	-
Output frequency	-	-
Diagnostics		
Communication status	LED indication, Communication message	
Voltage detection	LED indication	
Short-circuit & Overload	LED indication	
General data		
Protection Class	IP20	
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C	
Dimensions (W*H*D)	91 mm × 70 mm × 38 mm	

LKHA-0808P-QA	LKHA-0808P-TA	LKHA-0016P-QA	LKHA-0016P-TA
8DI/8DO,PNP,interface 4-PIN M12	8DI/8DO,PNP,interface 4-Pos terminals	16DO,PNP,interface 4-PIN M12	16DO,PNP,interface 4-Pos terminals
LKHA-0808N-QA	LKHA-0808N-TA	LKHA-0016N-QA	LKHA-0016N-TA
8DI/8DO,NPN,interface 4-PIN M12	8DI/8DO,NPN,interface 4-Pos terminals	16DO,NPN,interface 4-PIN M12	16DO,NPN,interface 4-Pos terminals
1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals
Included in IO-Link interface			
2× 10 position I/O terminal blocks+2×10 position Aux-plugs (24V and 0V) terminal blocks, Push-in spring connection, Pluggable			
8	8	—	—
Max 200 mA per channel, Sum 1.6 A		—	—
0.8 ms, 1.6 ms, 3.2 ms or 20 ms, Parameterizable configuration		—	—
8	8	16	16
Max 500 mA per channel, Sum 2 A			
Lamps, solenoid valve, etc..			
Resistive load 100 Hz, Inductive load 5 Hz			
LED indication, Communication message			
LED indication			
LED indication			
IP20			
Operating -25 ... +70 °C, Storage -40 ... +85 °C			
91 mm × 70 mm × 38 mm			

IO-LINK IP20 Hubs-16 Digital I/O modules

Dimension drawing and terminal definition-PNP



1	2	3	4
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- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)

1	2	3	4
---	---	---	---

- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)



- 1 - 1L 24V+(BN)
- 2 - nc
- 3 - 1M GND(BU)
- 4 - C/Q(BK)



- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808P-QC

No.	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M



- 1 - 1L 24V+(BN)
- 2 - nc
- 3 - M GND(BU)
- 4 - C/Q(BK)



- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808P-QA

No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
Definition	M	M	M	M	M	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40

1	2	3	4
---	---	---	---

- 1 - 1L 24V+(BN)
- 2 - nc
- 3 - M GND(BU)
- 4 - C/Q(BK)

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808P-TC

No.	1	2	3	4	5	6	7	8	9	10
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M

1	2	3	4
---	---	---	---

- 1 - 1L 24V+(BN)
- 2 - nc
- 3 - M GND(BU)
- 4 - C/Q(BK)

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA1600P-TA

No.	21	22	23	24	25	26	27	28	29	30
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	M
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808P-TA

No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
Definition	M	M	M	M	M	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40



- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA0016P-QC

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	M

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA1600P-QC

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	M



- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)

No.	11	12	13	14	15	16	17	18	19	20
Definition	M	M	M	M	M	M	M	M	M	M
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA0016P-QA

No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	M
Definition	M	M	M	M	M	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA1600P-QA

No.	21	22	23	24	25	26	27	28	29	30
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	M
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40

1	2	3	4
---	---	---	---

- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA0016P-TC

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	M

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA1600P-TC

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	i9	i10	i11	i12	i13	i14	i15	i16	M

1	2	3	4
---	---	---	---

- 1 - 1L 24V+(BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND(BU)
- 4 - C/Q(BK)

No.	11	12	13	14	15	16	17	18	19	20
Definition	M	M	M	M	M	M	M	M	M	M
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA0016P-TA

No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	M
Definition	M	M	M	M	M	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40

IO-LINK IP20 Hubs-16 Digital I/O modules

Dimension drawing and terminal definition-NPN



1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

Definition

1L	i1	i2	i3	i4	i5	i6	i7	i8	M	
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808N-QC

No.	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M



1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

Definition

1L	i1	i2	i3	i4	i5	i6	i7	i8	M	
No.	1	2	3	4	5	6	7	8	9	10

LKHA-1600N-QC

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	i9	i10	i11	i12	i13	i14	i15	i16	M



1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

No.

11	12	13	14	15	16	17	18	19	20	
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808N-QA

No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
Definition	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L
No.	31	32	33	34	35	36	37	38	39	40



1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

No.

11	12	13	14	15	16	17	18	19	20	
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-1600N-QA

No.	21	22	23	24	25	26	27	28	29	30
Definition	1L	i9	i10	i11	i12	i13	i14	i15	i16	M
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40

1	2	3	4
---	---	---	---

1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

Definition

1L	i1	i2	i3	i4	i5	i6	i7	i8	M	
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808N-TC

No.	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M

1	2	3	4
---	---	---	---

1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

Definition

1L	i1	i2	i3	i4	i5	i6	i7	i8	M	
No.	1	2	3	4	5	6	7	8	9	10

LKHA-1600N-TC

No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	i9	i10	i11	i12	i13	i14	i15	i16	M

1	2	3	4
---	---	---	---

1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

No.

11	12	13	14	15	16	17	18	19	20	
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-0808N-TA

No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
Definition	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L
No.	31	32	33	34	35	36	37	38	39	40

1	2	3	4
---	---	---	---

1 - 1L 24V+(BN)
2 - 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

No.

11	12	13	14	15	16	17	18	19	20	
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	M
No.	1	2	3	4	5	6	7	8	9	10

LKHA-1600N-TA

No.	21	22	23	24	25	26	27	28	29	30
Definition	1L	i9	i10	i11	i12	i13	i14	i15	i16	M
Definition	1L	1L	1L	1L	1L	M	M	M	M	M
No.	31	32	33	34	35	36	37	38	39	40



- 1 - 1L 24V+ (BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND (BU)
- 4 - C/Q (BK)

Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
No.	1	2	3	4	5	6	7	8	9	10
LKHA-0016N-QC										
No.	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	M



- 1 - 1L 24V+ (BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND (BU)
- 4 - C/Q (BK)

No.	11	12	13	14	15	16	17	18	19	20
Definition	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
No.	1	2	3	4	5	6	7	8	9	10
LKHA-0016N-QA										
No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	M
Definition	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L
No.	31	32	33	34	35	36	37	38	39	40

1	2	3	4
---	---	---	---

- 1 - 1L 24V+ (BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND (BU)
- 4 - C/Q (BK)

Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
No.	1	2	3	4	5	6	7	8	9	10
LKHA-0016N-TC										
No.	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	M

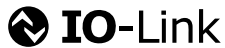
1	2	3	4
---	---	---	---

- 1 - 1L 24V+ (BN)
- 2 - 2L 24V+ (WH)
- 3 - M GND (BU)
- 4 - C/Q (BK)

No.	11	12	13	14	15	16	17	18	19	20
Definition	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	M
No.	1	2	3	4	5	6	7	8	9	10
LKHA-0016N-TA										
No.	21	22	23	24	25	26	27	28	29	30
Definition	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	M
Definition	2L	2L	2L	2L	2L	2L	2L	2L	2L	2L
No.	31	32	33	34	35	36	37	38	39	40

IO-LINK IP20 Hubs-16 Digital I/O modules

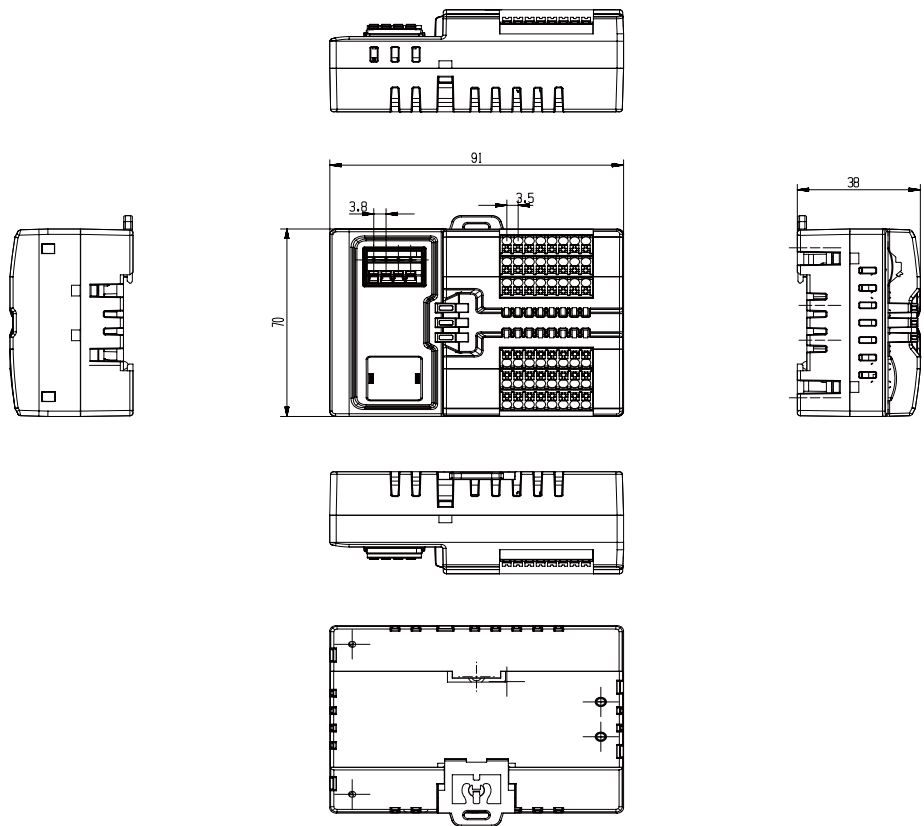
- IO-Link Version 1.1.3
- Transfer rate:COM 2(38.4 kBaud)
- IO-Link ports: Class A
- Pluggable I/O and Aux-plugs(24V and 0V) terminal blocks



Ordering data	
Product Model	LKHA-16UP-TS
Description	16DIO, PNP, interface 4-Pos terminals
Product Model	LKHA-16UN-TS
Description	16DIO, NPN, interface 4-Pos terminals
Electrical Connection	
IO-Link	1×4-Pos terminals
Power Supply	IO-LINK interface+Power supply terminals
Input/Output	2× 8position I/O terminal blocks+4×8 position Aux-plugs (24V and 0V) terminal blocks, Push-in spring connection, Pluggable
Electrical data	
Input	Max 16
Input supply current	Max 200 mA per channel,Sum 1.6 A
Input delay	0.8 ms,1.6 ms, 3.2 ms or 20 ms, Parameterizable configuration
Output	Max 16
Output current	Max 500 mA per channel, Sum 2 A
Output type	Lamps, solenoidvalve, etc..
Output frequency	Resistive load 100Hz, Inductive load 5Hz
Diagnostics	
Communication	LED indication, Communication message
Voltage detection	LED indication
Short-circuit & Overload	LED indication
General data	
Protection Class	IP20
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C
Dimensions (W*H*D)	91 mm × 70 mm × 38mm

IO-LINK IP20 Hubs-16 Digital I/O modules

Dimension drawing and terminal definition



1	2	3	4
---	---	---	---

1 - 1L 24V+ (BN)
2 - 2L 24V+ (WH)
3 - 1M GND (BU)
4 - C/Q (BK)

Definition	0V							
Definition	24V							
Definition	I/O							

No.

1

2

3

4

5

6

7

8

LKHA-16UP-TS

No.	9	10	11	12	13	14	15	16
Definition	I/O							
Definition	24V							
Definition	0V							

1	2	3	4
---	---	---	---

1 - 1L 24V+ (BN)
2 - 2L 24V+ (WH)
3 - 1M GND (BU)
4 - C/Q (BK)

Definition	0V							
Definition	24V							
Definition	I/O							
No.	1	2	3	4	5	6	7	8

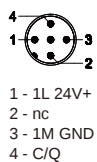
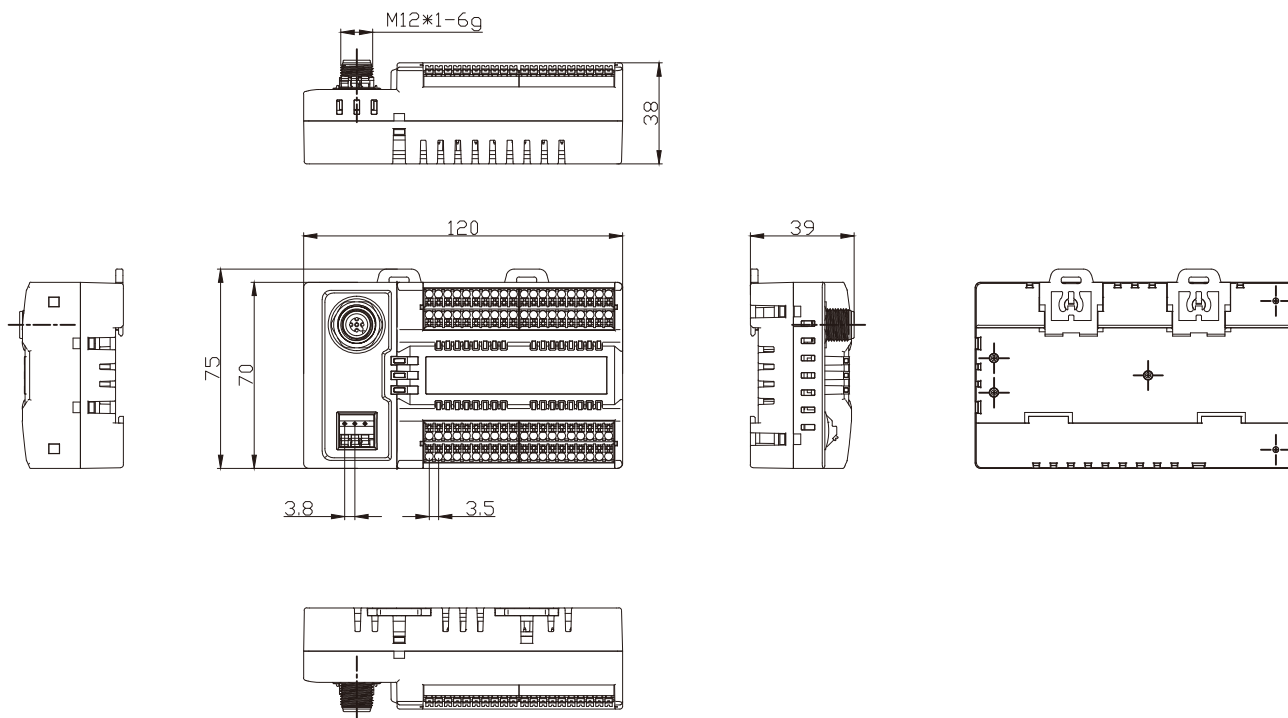
LKHA-16UN-TS

No.	9	10	11	12	13	14	15	16
Definition	I/O							
Definition	24V							
Definition	0V							

IO-LINK IP20 Hubs 8-Channel Analog I/O modules

■ IO-Link Version 1.1.3 ■ Transfer rate:COM2 (38.4 kBaud) ■ IO-Link port: Class A ■ Pluggable I/O terminals ■ 8-channel 16 bits resolution analog input/output 		
Ordering data		
Product Model	LKHA-08UA-QC	LKHA-08UA-TC
Description	8-channel Analog I/O Module , 4-PIN M12	8-channel Analog I/O Module , 4-Pos terminals
Electrical connection		
IO-Link	1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals
Power supply	Included in IO-Link interface	Included in IO-Link interface
Input/Output	2×10-Pos terminals	
Electrical data		
Operation type	Voltage and current input and output can be configured,thermal resistance, thermocouple input	
Input	8	
Input supply current	200 mA per channel	
Input type	0...20 mA, 4...20 mA, 0...10 V, thermocouple: J, K, T, N, E type, PT100, PT1000	
Input impedance	Current: 250 Ω; Voltage: 1 MΩ	
Input resolution	16 Bits	
Conversion time	Current, Voltage: 12 ms; thermocouple: 50 ms	
Measurement accuracy	±0.3%	
Output	8	
Output type	Current: 0...20 mA, 4...20 mA; Voltage: 0...10V;	
Output Impedance	Current: <450 Ω; Voltage: >1 kΩ	
Output Resolution	16 Bits	
Conversion time	12 ms	
Measurement accuracy	±0.3%	
Diagnostics		
Communication status	LED indication, Communication message	
Voltage detection	LED indication	
Short-circuit & Overload	LED indication	
General data		
Protection Class	IP20	
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C	
Dimensions (W*H*D)	91 mm × 70 mm × 38mm	

Dimension drawing and terminal definition



Definition	nc	1L	1M	A1+	A1-	1L	1M	A2+	A2-	nc	nc	1L	1M	A3+	A3-	1L	1M	A4+	A4-	nc
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20

LKHA-08UA-QC

No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	nc	1L	1M	A5+	A5-	1L	1M	A6+	A6-	nc	nc	1L	1M	A7+	A7-	1L	1M	A8+	A8-	nc

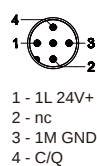
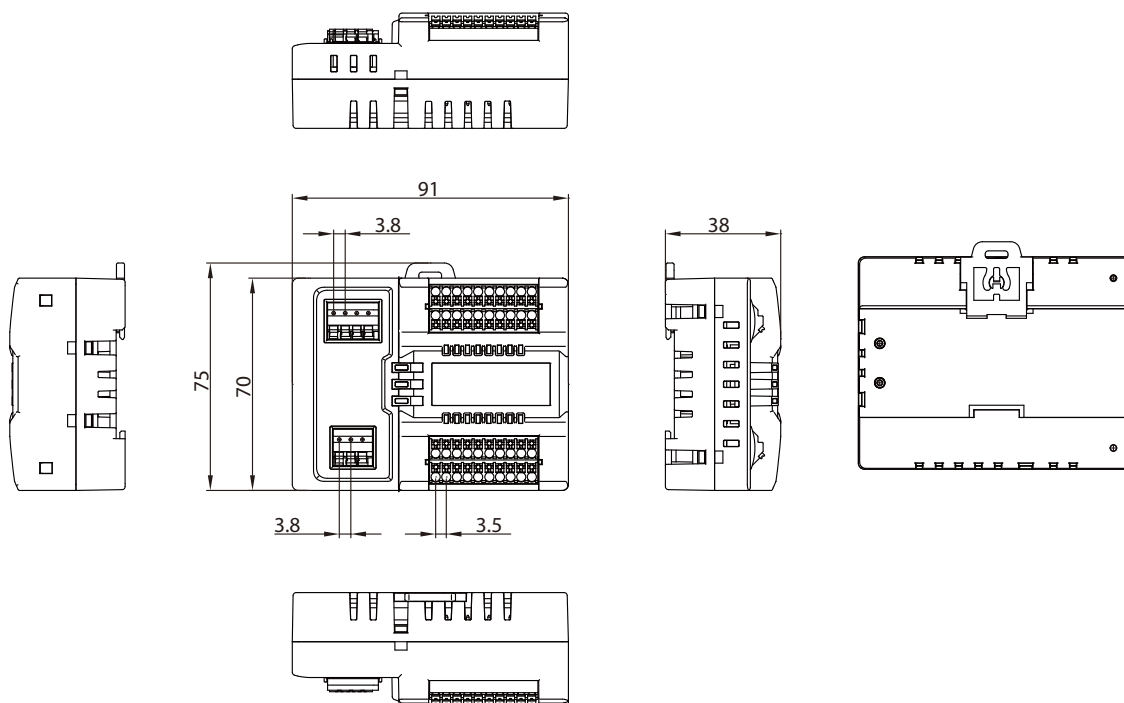
1	2	3	4	Definition	nc	1L	1M	A1+	A1-	1L	1M	A2+	A2-	nc	nc	1L	1M	A3+	A3-	1L	1M	A4+	A4-	nc										
No.					1	2	3	4	5	6	7	8	9	10											11	12	13	14	15	16	17	18	19	20
1 - 1L 24V+ 2 - nc 3 - 1M GND 4 - C/Q					LKHA-08UA-TC																													
No.					1	2	3	4	5	6	7	8	9	10											11	12	13	14	15	16	17	18	19	20
Definition					nc	1L	1M	A5+	A5-	1L	1M	A6+	A6-	nc											nc	1L	1M	A7+	A7-	1L	1M	A8+	A8-	nc

IO-LINK IP20 Hubs 4-Channel Analog I/O modules

IO-Link Version 1.1.3 Transfer rate:COM2 (38.4 kBaud) IO-Link port: Class A Pluggable I/O terminals 4-channel 16 bits resolution analog input/output		
IO-Link		
Ordering data		
Product Model	LKHA-04UA-QC	LKHA-04UA-TC
Description	4-channel Analog I/O Module, 4-PIN M12	4-channel Analog I/O Module, 4-Pos terminals
Electrical connection		
IO-Link	1×M12 A-CODE 4-PIN, Male	1×4-Pos terminals
Power supply	Included in IO-Link interface	Included in IO-Link interface
Input/Output	2×10-Pos terminals	
Electrical data		
Operation type	Voltage and current input and output can be configured,thermal resistance, thermocouple input	
Input	4	
Input supply current	200mA per channel	
Input type	0...20 mA, 4...20 mA, 0...10V, thermocouple: J, K, T, N, E type, PT100, PT1000	
Input impedance	Current: 250 Ω; Voltage: 1 MΩ	
Input resolution	16 Bits	
Conversion time	Current, Voltage: 12 ms; thermocouple: 50ms	
Measurement accuracy	±0.3%	
Output	4	
Output type	Current: 0...20 mA, 4...20 mA; Voltage: 0...10 V;	
Output Impedance	Current: <450 Ω; Voltage: >1 kΩ	
Output Resolution	16 Bits	
Conversion time	12 ms	
Measurement accuracy	± 0.3%	
Diagnostics		
Communication status	LED indication, Communication message	
Voltage detection	LED indication	
Short-circuit & Overload	LED indication	
General data		
Protection Class	IP20	
Temperature	Operating -25 ... +70 °C, Storage -40 ... +85 °C	
Dimensions (W*H*D)	91 mm × 70 mm × 38 mm	

IO-LINK IP20 Hubs 4-Channel Analog I/O modules

Dimension drawing and terminal definition



Definition	nc	1L	1M	A1+	A1-	1L	1M	A2+	A2-	nc
No.	1	2	3	4	5	6	7	8	9	10

LKHA-04UA-QC

No.	11	12	13	14	15	16	17	18	19	20
Definition	nc	1L	1M	A3+	A3-	1L	1M	A4+	A4-	nc

1	2	3	4
---	---	---	---

1 - 1L 24V+
2 - nc
3 - 1M GND
4 - C/Q

Definition	nc	1L	1M	A1+	A1-	1L	1M	A2+	A2-	nc
No.	1	2	3	4	5	6	7	8	9	10

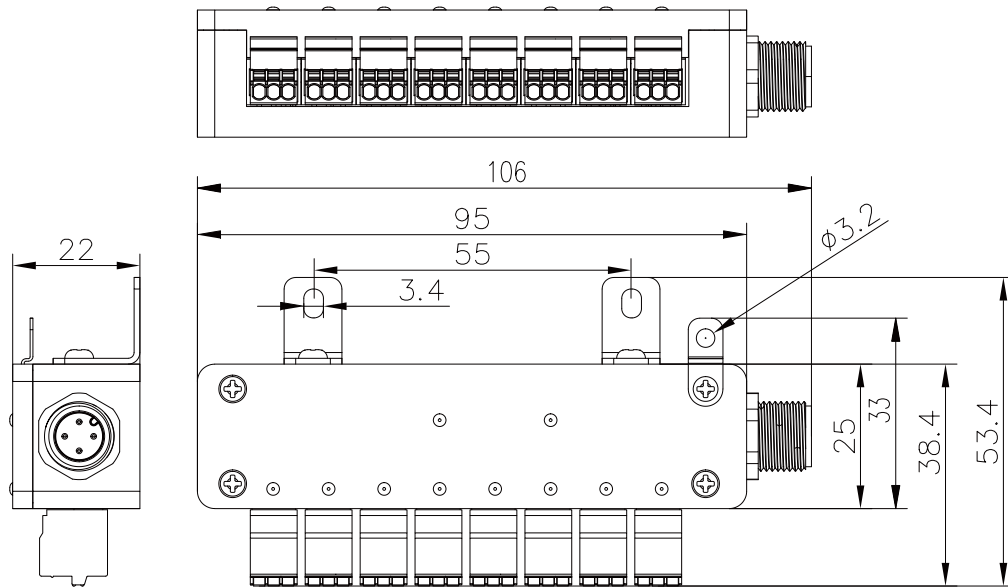
LKHA-04UA-TC

No.	11	12	13	14	15	16	17	18	19	20
Definition	nc	1L	1M	A3+	A3-	1L	1M	A4+	A4-	nc

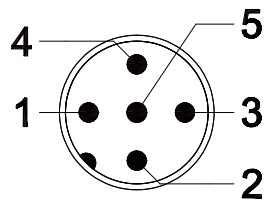
IO-LINK IP20 Mini Hub

Mini Shaped IO-Link IP20 Hub IO-LINK Version 1.1.3 COM2 (38.4kbps),Class A Pluggable I/O terminal blocks	<			
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Dimension drawing

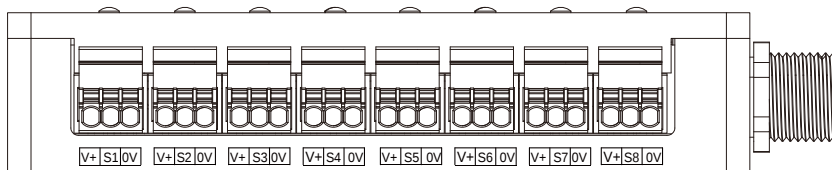


Interface drawing



IO-Link Class-A Port(Male)

- 1-Power supply_24V+
- 2-Output supply_P24
- 3-Power supply_GND
- 4-IO-Link



IO Terminals

- V+:24VDC+
- V-:0V
- S1-S8:DI/DO

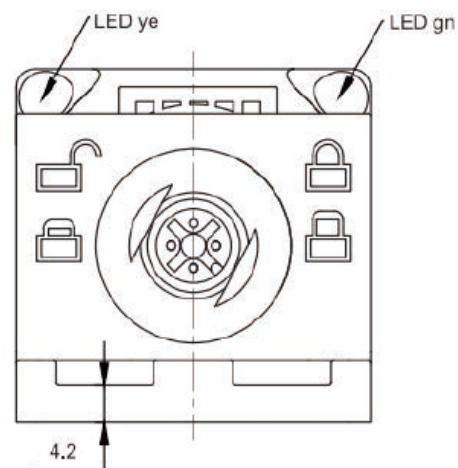
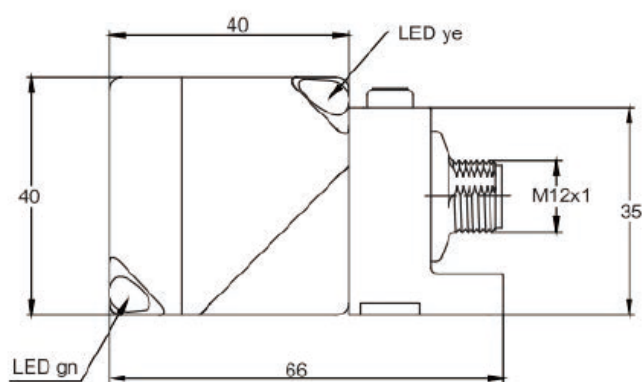
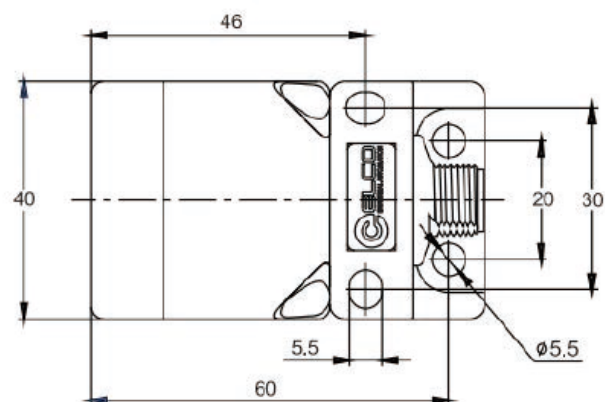
IO-Link High-Frequency Read/writeHead C40H

- IO-LINK Version 1.1.3
- Frequency 13.56 MHz
- Dynamically read and write
- LEDs as function indicators
- Degree of protection IP65

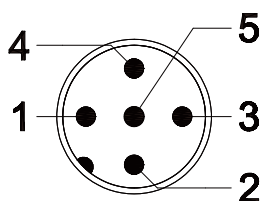


Ordering data	
Product model	RF30-WR-C40H/LK
Description	IIIO-Link high-frequency read/write head
Electrical data	
Rated voltage	24 VDC
Operating current	80 mA
Power consumption	≤ 2W
Electrical connection	Male, M12x, A-CODE, 4-pin
RFID specifications	
RFID standard	ISO 15693
Operating frequency	13.56MHz
Antenna type	Integrated antenna
Emitted power	23 dBm
Transfer rate	26 kBit/s
Read distance	0-70mm (depends on the tag and environment)
Dynamic model	Supported by the IODD file
IO-LINK parameter	
Interface	IO-LINK V1.1.3
Data transfer rate	COM3 (230.4 kbps)
Interface type	Class A
Min. cycle time	24 ms
Vender ID	111812
Device ID	16453928
Process data	32 Byte
Diagnosis	
Communication status	LED indicator
Power supply	LED indicator
Tag detection	LED indicator
Physical paramete	
Operating temperature	-25 °C ... 70 °C
Storage temperature	-40 °C ... 85 °C
Operating humidity	5%-95%
Degree of protection	IP67
Boundary dimension	40 mm × 40 mm × 66 mm
Spacing of mounting holes	20mm

Dimensions



Connection

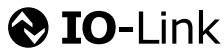


Class - A

- 1 - L+
- 2 - n.c
- 3 - L-
- 4 - C/Q

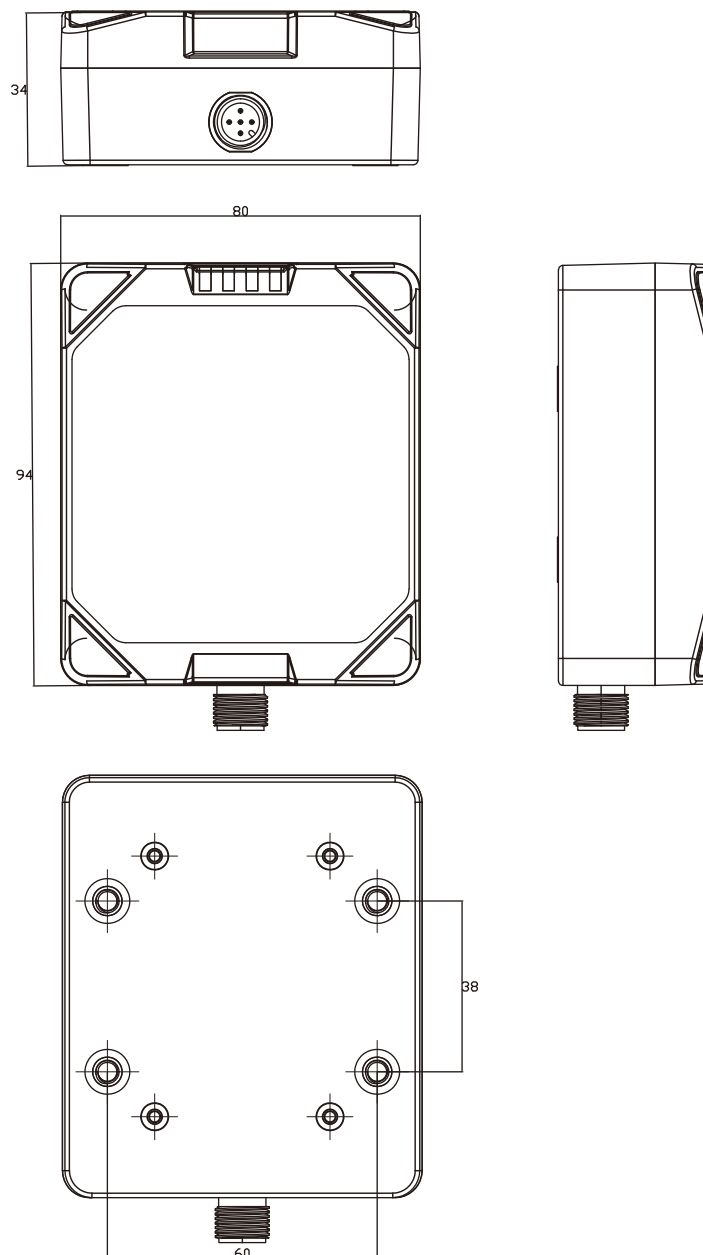
IO-Link High-Frequency Read/writeHead Q95H

- IO-LINK Version 1.1.3
- Frequency 13.56 MHz
- Dynamically read and write
- LEDs as function indicators
- Degree of protection IP65

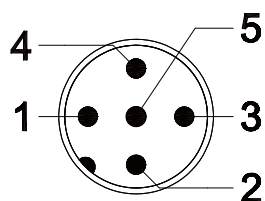


Ordering data	
Product model	RF30-WR-Q95H/LK
Description	IO-Link high-frequency read/write head
Electrical data	
Rated voltage	24VDC
Operating current	80mA
Power consumption	≤2W
Electrical connection	Male, M12x1, A-CODE, 4-pin
RFID specifications	
RFID standard	ISO 15693
Operating frequency	13.56 MHz
Antenna type	Integrated antenna
Emitted power	23 dBm
Transfer rate	26 kBit/s
Read distance	0-90mm (depends on the environment)
Dynamic model	Supported by the IODD file
IO-LINK parameter	
Interface	IO-LINK V1.1.3
Data transfer rate	COM3 (230.4 kbps)
Interface type	Class A
Min. cycle time	24 ms
Vender ID	11181
Device ID	16453927
Process data	32 Byte
Diagnosis	
Communication status	LED indicator
Power supply	LED indicator
Tag detection	LED indicator
Physical paramete	
Operating temperature	-25 °C ... 70 °C
Storage temperature	-40 °C ... 85 °C
Operating humidity	5%-95%
Degree of protection	IP67
Boundary dimension	94 mm × 80 mm × 34 mm
Spacing of mounting holes	60 mm × 38 mm

Dimensions



Connection



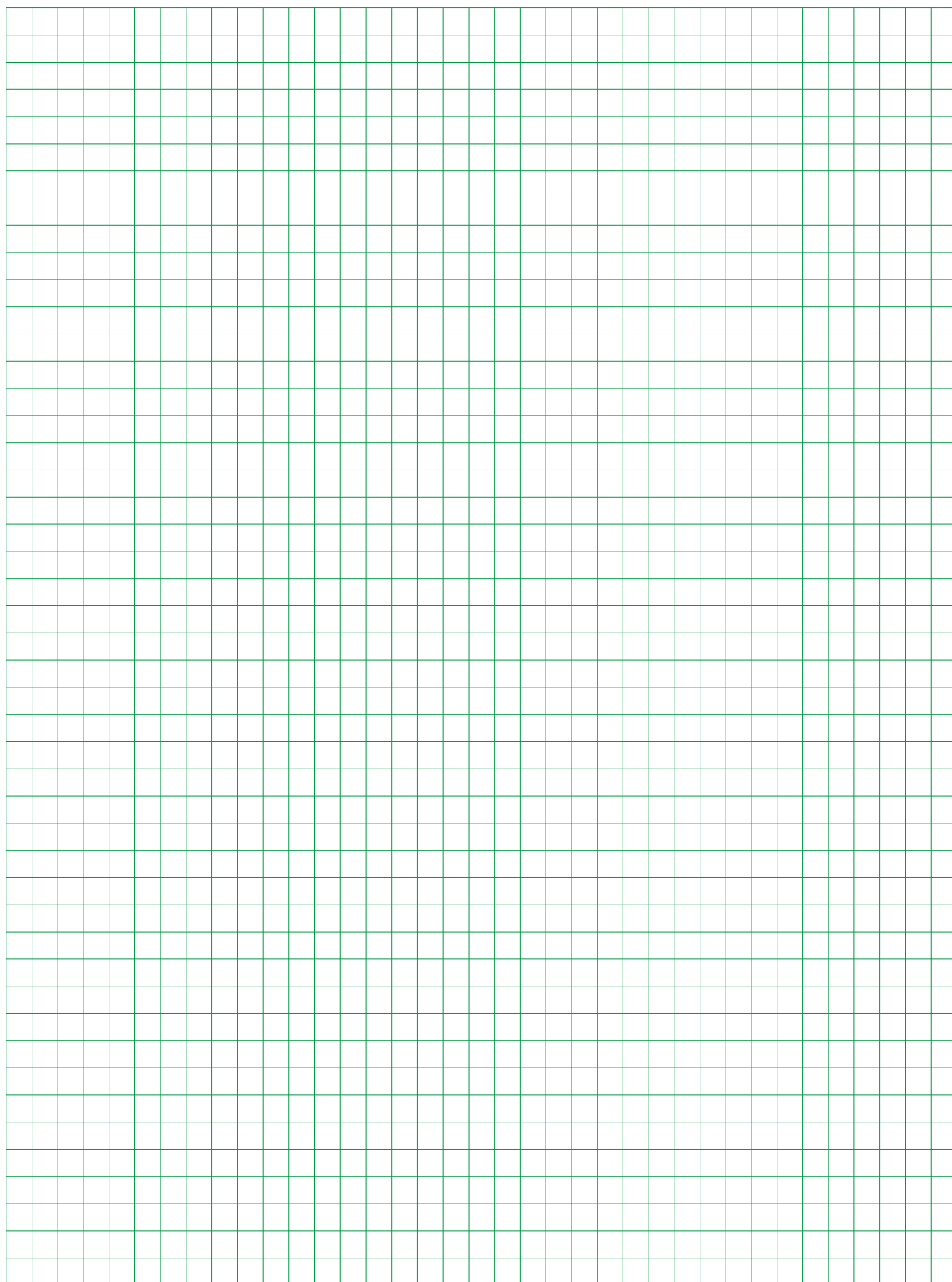
Class - A

- 1 - L+
- 2 - n.c
- 3 - L-
- 4 - C/Q

HF RFID Tags

HF tags				
	Universal Tags		Large memory Tag	Metallic surface mounted Tag
				
Type	RF30-TGH-ER20	RF30-TGH-ER30	RF30-TGH-ER30K2	RF30-TGH-MR30
Frequency	13.56 MHz	13.56 MHz	13.56 MHz	13.56 MHz
Memory capacity	128 Bytes EEPROM	128 Bytes EEPROM	2000 Bytes EEPROM	320 bytes EEPROM
Housing Material	PVC	ABS	PPA	PPA
Installation method	Double sided adhesive bonding, Installation non-metallic surface	Installation nonmetallic surface	Installation nonmetallic surface	Installation on metal
Operating temperature	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C
Storage temperature	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C	-30°C to +85°C
Protection grade	IP65	IP65	IP68	IP68
Dimensions	20 x 0.84 mm	30 x 2.0 mm, Installation aperture 3.5 mm	30 x 5.0 mm, Installation aperture 5 mm	30 x 3.0 mm, Installation aperture 5 mm
Weight	2.6 g	3 g	4.5 g	5 g

Attention: If the non-metallic tags need to be installed on a metal surface, the non-metallic gaskets need to be added, and the thickness of the gasket should be greater than 10 mm.



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