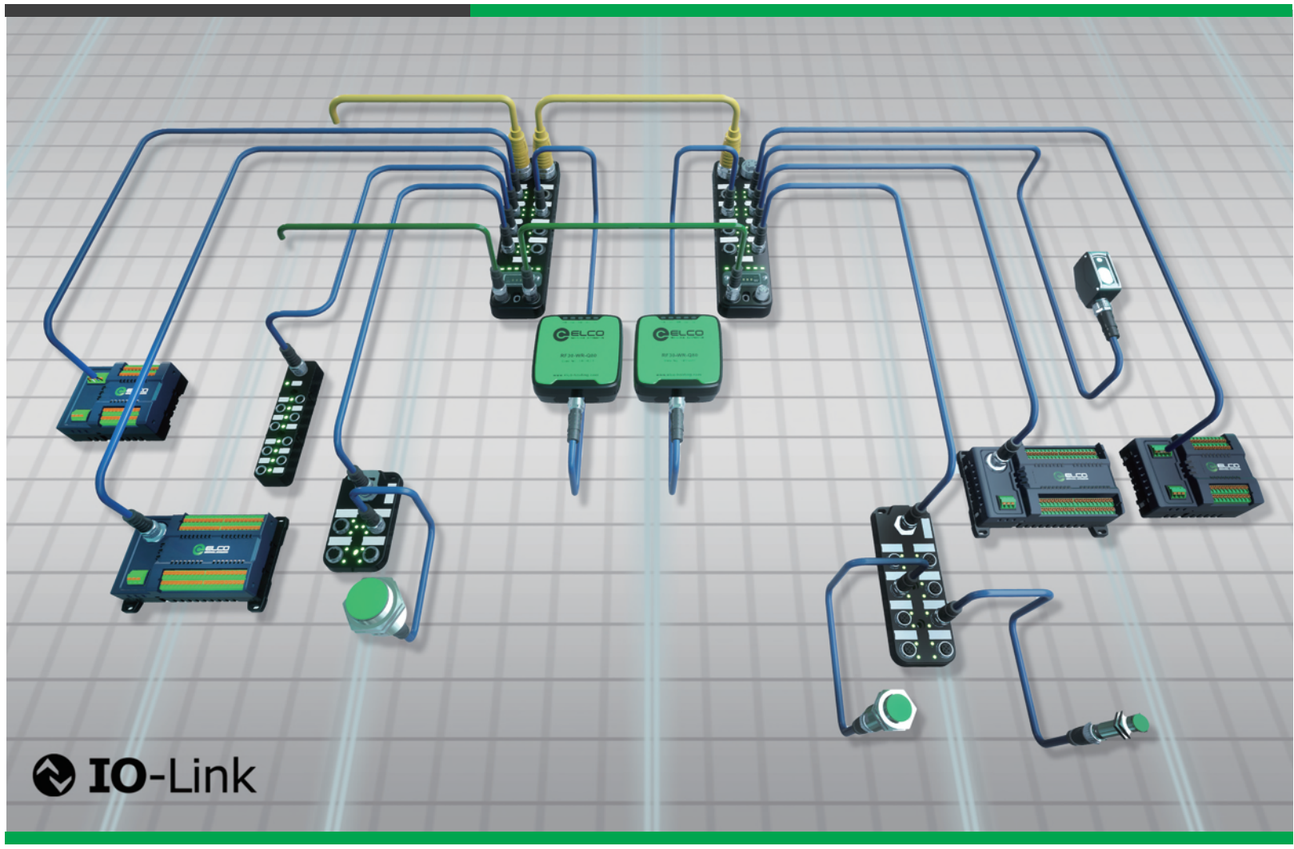
IO-LINK Product Catalog

IO-LINK Masters+Hubs



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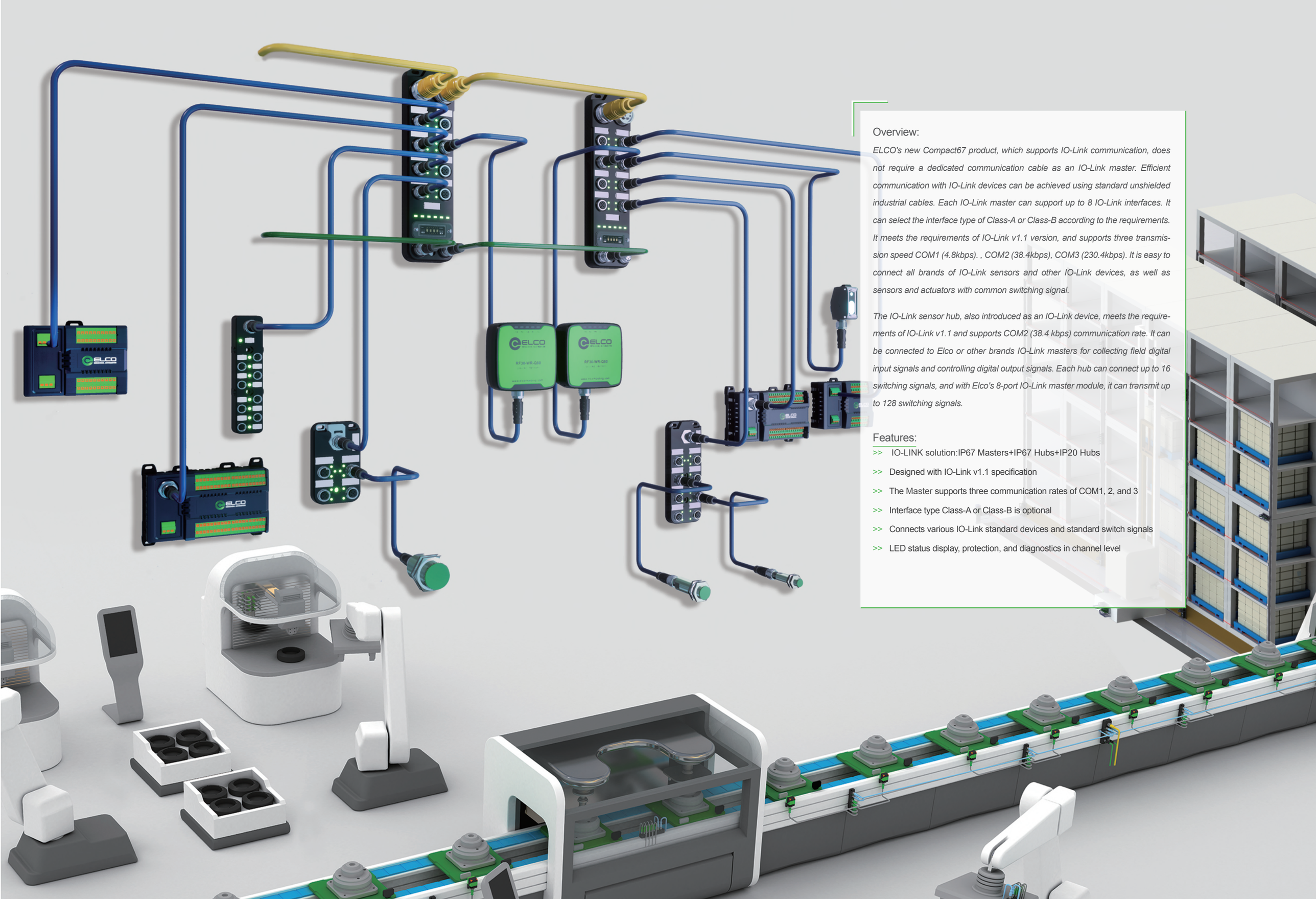


Overview:

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

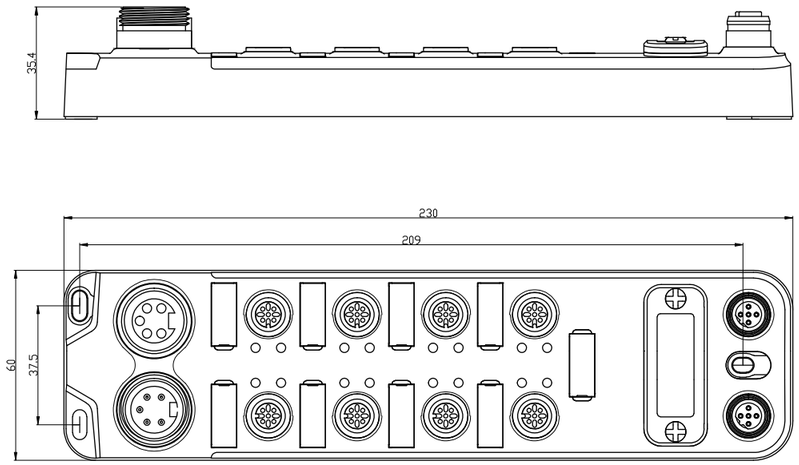
IO-Link Master

- IO-Link Version 1.1
- 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. 200mA		
System&Input supply	Us, Max. 8A		
Output supply	Ua, Max. 8A		
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		
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, Signa: 200mA per channel		
Auxiliary supply current	2A 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	Pin2: Max. 2A; Pin4: Max. 100mA		
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）	60x230x39 mm		

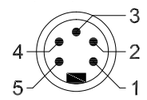
IO-Link Master

Dimensions drawing



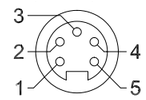
Voltage supply drawing

Power IN
(Male)



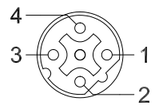
1-Auxiliary supply_Ua-
2-System/Input supply_Us-
3-Protective earth_PE
4-System/Input supply_Us+
5-Auxiliary supply_Ua+

Power Out
(Female)



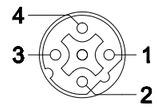
Fieldbus drawing

BUS IN
(Female)



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

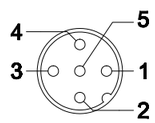
BUS OUT
(Female)



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

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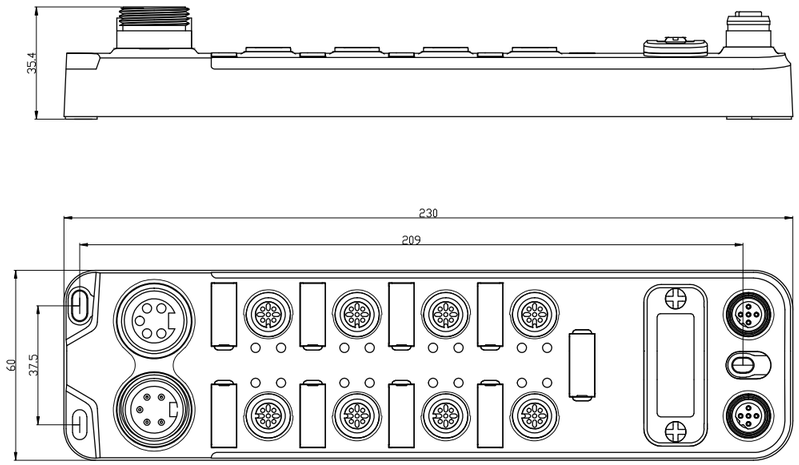
- IO-Link Version 1.1
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A or Class-B

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. 200mA		
System&Input supply	Us, Max. 8A		
Output supply	Ua, Max. 8A		
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 IO-	4*Class-A
IO-Link version	Link V1.1		
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: 200mA 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. 2A; Pin4: Max. 100mA		
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）	60x230x39 mm		

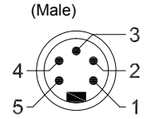
IO-Link Master

Dimensions drawing



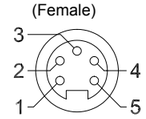
Voltage supply drawing

Power IN
(Male)



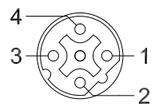
1-Auxiliary supply_Ua-
2-System/Input supply_Us-
3-Protective earth_PE
4-System/Input supply_Us+
5-Auxiliary supply_Ua+

Power Out
(Female)



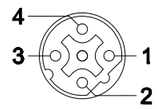
Fieldbus drawing

BUS IN
(Female)



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

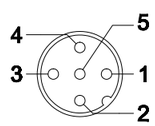
BUS OUT
(Female)



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

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- IO-Link Version 1.1
- Transfer rates: COM1, COM2, COM3
- IO-Link ports: Class-A or Class-B

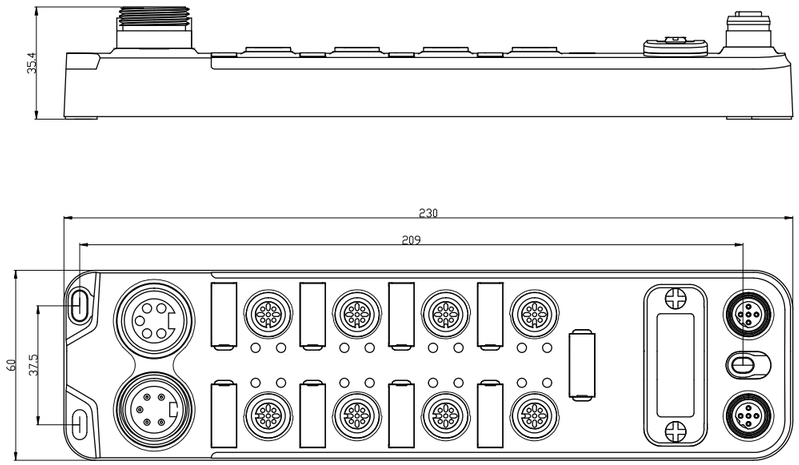
EtherCAT

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	EtherNet/IP		
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. 200mA		
System&Input supply	Us, Max. 8A		
Output supply	Ua, Max. 8A		
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		
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: 200mA 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. 2A; Pin4: Max. 100mA		
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）	60x230x39 mm		

IO-Link Master

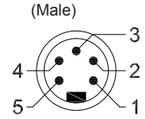
ELCO INDUSTRIAL AUTOMATION

Dimensions drawing



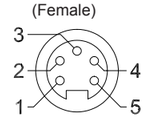
Voltage supply drawing

Power IN
(Male)



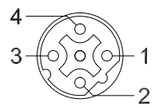
1-Auxiliary supply_Ua-
2-System/Input supply_Us-
3-Protective earth_PE
4-System/Input supply_Us+
5-Auxiliary supply_Ua+

Power Out
(Female)



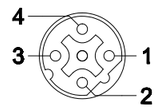
Fieldbus drawing

BUS IN
(Female)



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

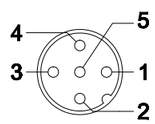
BUS OUT
(Female)



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

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IO-Link Sensor Hub

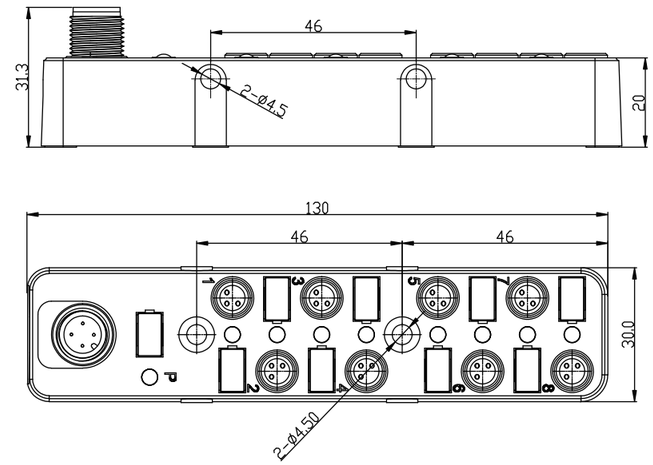
- IO-Link Version 1.1
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class-A

IO-Link

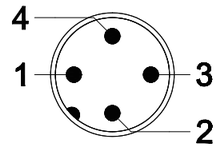
Ordering data		
Product type	LKHA-0800P-M8	LKHA-08UP-M8
Description	8DI, Class-A, 8*M8	8DI/DO, Class-A, 8*M8
Connections		
IO-Link	Class-A: 1 x M12 A-code 4pin, Male	
Power supply	Included in IO-Link interface	
Signals	8 x M8 3pin, Female	
Interface		
Input channels	8	Max. 8
Input supply current	Max. 200mA per channel	
Input type	PNP sensors, mechanical switches, dry contacts, etc..	
Input delay	1.6 ms	
Output channels	-	Max. 8
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		
Protection	IP67	
Temperature	Operating -25...+70 °C, Storage -40...+85 °C	
Dimensions（W*H*D）	30x130x31 mm	

IO-Link Sensor Hub

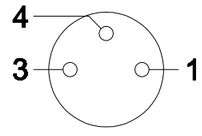
Dimensions drawing



Voltage supply 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

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- IO-Link version v1.1
- Support rates: COM2
- IO-Link ports: Class-A

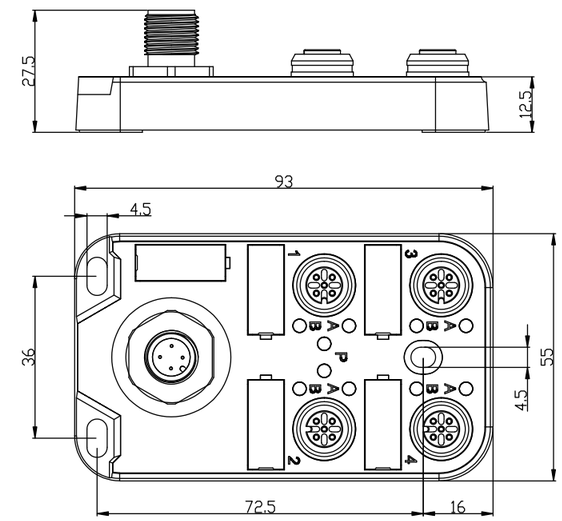
IO-Link

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 4pin，Male	
Power supply	Included in IO-Link interface	
Signals	4 x M12 A-code 5pin，Female	
Interface		
Input channels	8	Max. 8
Input supply current	Max. 200mA per channel	
Input type	PNP sensors，mechanical switches，dry contacts，etc..	
Input delay	1.6 ms	
Output channels	-	Max. 8
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		
Protection	IP67	
Temperature	Operating -25...+70 °C，Storage -40...+85 °C	
Dimensions（W*H*D）	55x93x28 mm	

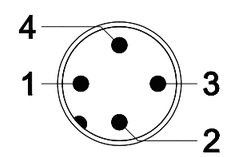
IO-Link Sensor Hub

ELCO INDUSTRIAL AUTOMATION

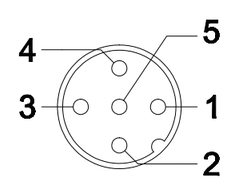
Dimensions drawing



Voltage supply 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

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www.crautomation.de

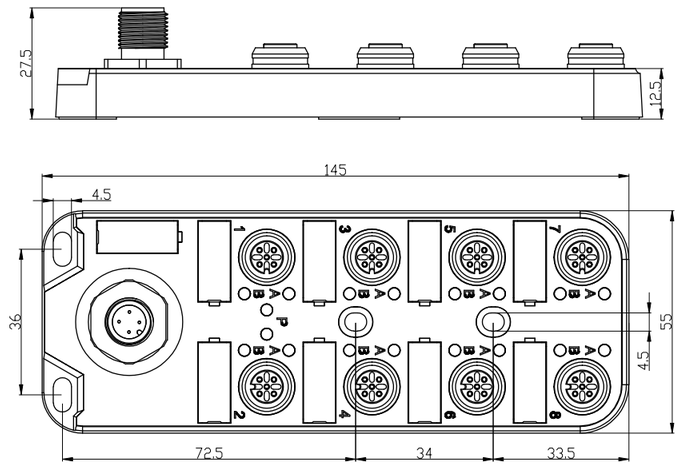
- IO-Link Version 1.1
- Support rates: COM2
- IO-Link port: Class-A

IO-Link

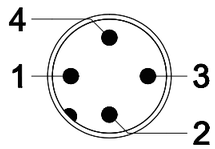
Ordering data				
Product type	LKHA-1600P-M12	LKHA-0808P-M12	LKHA-088UP-M12	LKHA-16UP-M12
Description	16DI, Class-A, 8*M12	8DI+8DO, Class-A, 8*M12	8DI+8DIO, Class-A, 8*M12	16DI/DO, Class-A, 8*M12
Connections				
IO-Link	Class-A: 1 x M12 A-code 4pin, Male			
Power supply	Included in IO-Link interface			
Signals	8 x M12 A-code 5pin, Female			
Interface				
Input channels	16	8	Max. 16	Max. 16
Input supply current	Max. 200mA per channel			
Input type	PNP sensors, mechanical switches, dry contacts, etc..			
Input delay	1.6 ms			
Output channels	-	8	Max. 8	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				
Protection	IP67			
Temperature	Operating -25...+70 °C, Storage -40...+85 °C			
Dimensions（W*H*D）	55x145x28 mm			

IO-Link Sensor Hub

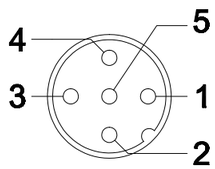
Dimensions drawing



Voltage supply 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

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- IO-Link Version 1.1
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O terminal blocks

IO-Link

Ordering data						
Product Model	LKHA-3200P-QC	LKHA-3200P-TC	LKHA-1616P-QC	LKHA-1616P-TC	LKHA-0032P-QC	LKHA-0032P-TC
Description	32DI,PNP,interface 4-PIN M12	32DI,PNP,interface 4-Pos terminals	16DI/16DO,PNP,interface 4-PIN M12	16DI/16DO,PNP,interface 4-Pos terminals	32DO,PNP,interface 4-PIN M12	32DO,PNP,interface 4-Pos terminals
Product Model	LKHA-3200N-QC	LKHA-3200N-TC	LKHA-1616N-QC	LKHA-1616N-TC	LKHA-0032N-QC	LKHA-0032N-TC
Description	32DI,NPN,interface 4-PIN M12	32DI,NPN,interface 4-Pos terminals	16DI/16DO,NPN,interface 4-PIN M12	16DI/16DO,NPN,interface 4-Pos terminals	32DO,NPN,interface 4-PIN M12	32DO,NPN,interface 4-Pos terminals
Electrical connection						
IO-Link	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals
Power supply	Included in IO-Link interface		IO-LINK interface+Power supply terminals			
Input/Output	4× 10 position I/O terminal blocks,Push-in spring connection,Pluggable		4× 10 position I/O terminal blocks,Push-in spring connection,Pluggable			
Electrical data						
Input	32	32	16	16	—	—
Input supply current	Max 200mA per channel		Max 200mA per channel		—	—
Input delay	0.8ms,1.6ms,3.2ms or 20ms ,Parameterizable configuration		0.8ms,1.6ms,3.2ms or 20ms ,Parameterizable configuration		—	—
Output	-	-	16	16	32	32
Output current	-	-	Max 500mA per channel			
Output type	-	-	Lamps, solenoidvalve, etc..			
Output frequency	-	-	Resistive load 100Hz, Inductive load 5Hz			
Diagnostics						
Communication status	LED indication, Communication message		LED indication, Communication message			
Voltage detection	LED indication		LED indication			
Short-circuit & Overload	LED indication		LED indication			
General data						
Protection Class	IP20		IP20			
Temperature	Operating -25...+70 °C, Storage -40...+85 °C		Operating -25...+70 °C, Storage -40...+85 °C			
Dimensions（W*H*D）	120mm×70mm×41.5mm		120mm×70mm×41.5mm			

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www.crautomation.de

- IO-Link Version 1.1
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O and Aux-plugs(24V and 0V) terminal blocks

IO-Link

Ordering data						
Product Model	LKHA-3200P-QA	LKHA-3200P-TA	LKHA-1616P-QA	LKHA-1616P-TA	LKHA-0032P-QA	LKHA-0032P-TA
Description	32DI,PNP,interface 4-PIN M12	32DI,PNP,interface 4-Pos terminals	16DI/16DO,PNP,interface 4-PIN M12	16DI/16DO,PNP,interface 4-Pos terminals	32DO,PNP,interface 4-PIN M12	32DO,PNP,interface 4-Pos terminals
Product Model	LKHA-3200N-QA	LKHA-3200N-TA	LKHA-1616N-QA	LKHA-1616N-TA	LKHA-0032N-QA	LKHA-0032N-TA
Description	32DI,NPN,interface 4-PIN M12	32DI,NPN,interface 4-Pos terminals	16DI/16DO,NPN,interface 4-PIN M12	16DI/16DO,NPN,interface 4-Pos terminals	32DO,NPN,interface 4-PIN M12	32DO,NPN,interface 4-Pos terminals
Electrical connection						
IO-Link	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals
Power supply	Included in IO-Link interface		IO-LINK interface+Power supply terminals			
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	16	—	—
Input supply current	Max 200mA per channel		Max 200mA per channel		—	—
Input delay	0.8ms,1.6ms,3.2ms or 20ms ,Parameterizable configuration		0.8ms,1.6ms,3.2ms or 20ms ,Parameterizable configuration		—	—
Output	-	-	16	16	32	32
Output current	-	-	Max 500mA per channel			
Output type	-	-	Lamps, solenoidvalve, etc..			
Output frequency	-	-	Resistive load 100Hz, Inductive load 5Hz			
Diagnostics						
Communication status	LED indication, Communication message		LED indication, Communication message			
Voltage detection	LED indication		LED indication			
Short-circuit & Overload	LED indication		LED indication			
General data						
Protection Class	IP20		IP20			
Temperature	Operating -25...+70 °C, Storage -40...+85 °C		Operating -25...+70 °C, Storage -40...+85 °C			
Dimensions（W*H*D）	120mm×70mm×41.5mm		120mm×70mm×41.5mm			

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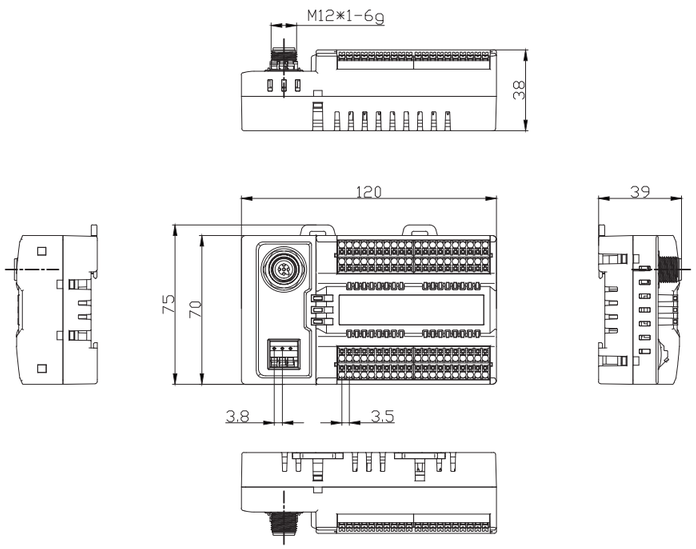
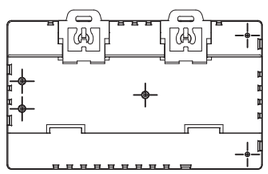
Dimension drawing and terminal definition





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

LKHA-1616P-TC

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
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

LKHA-3200P-TA

Definition	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	1M	1L	i25	i26	i27	i28	i29	i30	i31	i32	1M
Definition	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M
No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

24V+ GND PE: 1L 1M PE

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

LKHA-1616P-TA

Definition	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
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	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M

24V+ GND PE: 2L 2M PE

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

LKHA-0032P-QC

Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	2M	2L	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	2M

24V+ GND PE: 2L 2M PE

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

LKHA-3200P-QC

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	1M	1L	i25	i26	i27	i28	i29	i30	i31	i32	1M

24V+ GND PE: 1L 1M PE

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

LKHA-0032P-QA

Definition	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	2M	2L	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	2M
Definition	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M

24V+ GND PE: 2L 2M PE

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

LKHA-1616P-QC

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
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)

LKHA-3200P-QA

Definition	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	1M	1L	i25	i26	i27	i28	i29	i30	i31	i32	1M
Definition	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M
No.	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40

24V+ GND PE: 2L 2M PE

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

LKHA-0032P-TC

Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	2M	2L	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	2M

24V+ GND PE: 2L 2M PE

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

LKHA-1616P-QA

Definition	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M	1L	1L	1L	1L	1L	1M	1M	1M	1M	1M
Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
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	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M

24V+ GND PE: 2L 2M PE

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

LKHA-3200P-TC

Definition	1L	i1	i2	i3	i4	i5	i6	i7	i8	1M	1L	i9	i10	i11	i12	i13	i14	i15	i16	1M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	1M	1L	i25	i26	i27	i28	i29	i30	i31	i32	1M

24V+ GND PE: 1L 1M PE

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

LKHA-0032P-TA

Definition	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M
Definition	2L	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8	2M	2L	Q9	Q10	Q11	Q12	Q13	Q14	Q15	Q16	2M
No.	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
Definition	2L	Q17	Q18	Q19	Q20	Q21	Q22	Q23	Q24	2M	2L	Q25	Q26	Q27	Q28	Q29	Q30	Q31	Q32	2M
Definition	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M	2M

24V+ GND PE: 2L 2M PE

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

- IO-Link Version 1.1
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O terminal blocks

IO-Link

Ordering data						
Product Model	LKHA-1600P-QC	LKHA-1600P-TC	LKHA-0808P-QC	LKHA-0808P-TC	LKHA-0016P-QC	LKHA-0016P-TC
Description	16DI,PNP,interface 4-PIN M12	16DI,PNP,interface 4-Pos terminals	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
Product Model	LKHA-1600N-QC	LKHA-1600N-TC	LKHA-0808N-QC	LKHA-0808N-TC	LKHA-0016N-QC	LKHA-0016N-TC
Description	16DI,NPN,interface 4-PIN M12	16DI,NPN,interface 4-Pos terminals	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
Electrical connection						
IO-Link	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals
Power supply	Included in IO-Link interface		IO-LINK interface+Power supply terminals			
Input/Output	2× 10 position I/O terminal blocks,Push-in spring connection, Pluggable		2× 10 position I/O terminal blocks,Push-in spring connection,Pluggable			
Electrical data						
Input	16	16	8	8	—	—
Input supply current	Max 200mA per channel		Max 200mA per channel		—	—
Input delay	0.8ms,1.6ms,3.2ms or 20ms , Parameterizable configuration		0.8ms,1.6ms,3.2ms or 20ms ,Parameterizable configuration		—	—
Output	-	-	8	8	16	16
Output current	-	-	Max 500mA per channel			
Output type	-	-	Lamps, solenoidvalve, etc..			
Output frequency	-	-	Resistive load 100Hz, Inductive load 5Hz			
Diagnostics						
Communication status	LED indication, Communication message		LED indication, Communication message			
Voltage detection	LED indication		LED indication			
Short-circuit & Overload	LED indication		LED indication			
General data						
Protection Class	IP20		IP20			
Temperature	Operating -25...+70 °C, Storage -40...+85 °C		Operating -25...+70 °C, Storage -40...+85 °C			
Dimensions（W*H*D）	91mm×70mm×38mm		91mm×70mm×38mm			

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

- IO-Link Version 1.1
- Transfer rate:COM2 (38.4 kBaud)
- IO-Link port: Class A
- Pluggable I/O and Aux-plugs(24V and 0V) terminal blocks

IO-Link

Ordering data						
Product Model	LKHA-1600P-QA	LKHA-1600P-TA	LKHA-0808P-QA	LKHA-0808P-TA	LKHA-0016P-QA	LKHA-0016P-TA
Description	16DI,PNP,interface 4-PIN M12	16DI,PNP,interface 4-Pos terminals	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
Product Model	LKHA-1600N-QA	LKHA-1600N-TA	LKHA-0808N-QA	LKHA-0808N-TA	LKHA-0016N-QA	LKHA-0016N-TA
Description	16D,NPN,interface 4-PIN M12	16D,NPN,interface 4-Pos terminals	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
Electrical connection						
IO-Link	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals	1×M12 A-CODE 4-PIN,Male	1×4-Pos terminals
Power supply	Included in IO-Link interface		IO-LINK interface+Power supply terminals			
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	8	8	—	—
Input supply current	Max 200mA per channel		Max 200mA per channel		—	—
Input delay	0.8ms,1.6ms,3.2ms or 20ms ,Parameterizable configuration		0.8ms,1.6ms,3.2ms or 20ms ,Parameterizable configuration		—	—
Output	-	-	8	8	16	16
Output current	-	-	Max 500mA per channel			
Output type	-	-	Lamps, solenoidvalve, etc..			
Output frequency	-	-	Resistive load 100Hz, Inductive load 5Hz			
Diagnostics						
Communication status	LED indication, Communication message		LED indication, Communication message			
Voltage detection	LED indication		LED indication			
Short-circuit & Overload	LED indication		LED indication			
General data						
Protection Class	IP20		IP20			
Temperature	Operating -25...+70 °C, Storage -40...+85 °C		Operating -25...+70 °C, Storage -40...+85 °C			
Dimensions（W*H*D）	91mm×70mm×38mm		91mm×70mm×38mm			

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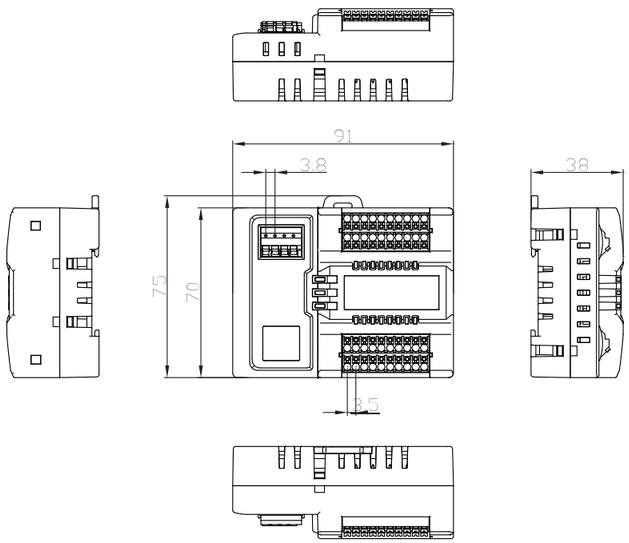
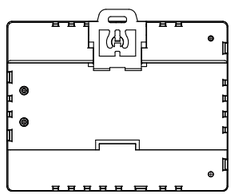
Dimension drawing and terminal definition





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 - 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 - 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-TC

No.	1	2	3	4	5	6	7	8	9	10
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)

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 - nc
3 - 1M 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

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

Definition	1L	i9	i10	i11	i12	i13	i14	i15	i16	M

LKHA1600P-TC

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- 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

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

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

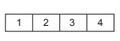
No.	11	12	13	14	15	16	17	18	19	20
Definition	1L	i17	i18	i19	i20	i21	i22	i23	i24	M

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

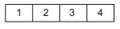


1 - 1L 24V+(BN)
2- 2L 24V+ (WH)
3 - M GND(BU)
4 - C/Q(BK)

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



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