

381166714	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS EC08IOLA08DIO	

Description

- IO-Link Master, Single Protocol (EtherCAT), IoT Protocol (REST)
- 8 IO-Link Master Ports Class A
- Metal housing IP65, IP67, IP69
- 8 x M12 A-coded I/O connection 5-poles
- 2 x M12 D-coded Ethernet connection 4-poles
- 2 x M12 L-coded power supply



General characteristics

Device Type	IO-Link Master
Protocol	EtherCAT
I/O Function	8 IOL (Class A)
Bus Connection	M12, 4-poles, D-coded, female
Power Connection (System Supply)	M12 Power, 5-poles, L-coded, male
I/O Connection	M12, 5-poles, A-coded, female
I/O Type	IO-Link Master
Protection Degree / IP Rating	IP65 / 67 / 69
Ambient Temperature (Operation)	-20 °C to 60 °C
Ambient Temperature (Storage/Transport)	-20 °C to 60 °C
Permissible Humidity (Operation)	5 % ... 95 % (For UL applications max. 80 %)
Permissible Humidity (Storage/Transport)	5 % ... 95 % (For UL applications max. 80 %)
Air Pressure (Operation)	80 kPa ... 106 kPa (up to 2000 m above sea level)
Air Pressure (Storage/Transport)	80 kPa ... 106 kPa (up to 2000 m above sea level)
Protection Class	III, IEC 61140, EN 61140, VDE 0140-1
Pollution Degree	3 acc. to EN 60664-1, VDE 0110-1
Mean Time To Failure (MTBF) @ 20°C	5563004 h
Fastening Torque (Fixing Screw)	M4: 1 Nm
Fastening Torque (Ground Connection (FE))	M4: 1 Nm
Fastening Torque (Bus Connection)	M12: 0.5 Nm
Fastening Torque (Power Connection)	M12: 0.5 Nm
Fastening Torque (I/O Connection)	M12: 0.5 Nm
IIoT Protocol	REST API (Cyclic data read/write, Diagnosis data, Event data)

Variation

Article	Description	Amount of IO Link Ports
381166714	UNITRONIC ACCESS EC08IOLA08DIO	8

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Power and interfaces requirements

Connection Module Supply Voltage	M12 Power, 5-poles, L-coded
Number of Connections	2
Module Supply Voltage	24 V DC (20-30VDC) (SELV/PELV)
Connection Sensor Supply Voltage	M12 Power, 5-poles, L-coded
Sensor Supply Voltage	24 V DC (20-30 VDC) (SELV/PELV)
Reverse Polarity Protection	Yes
Status Indicator (Actuator Supply)	LED green
Diagnostic Indicator	LED red

Physical properties

Housing Material	Metal, zinc die-cast
Housing Plating	Nickel, matt
Housing Color	Grey Metallic
Potted	Yes
Weight	500 g
Contact Base Material	M12, D-coded, CuSn, Gold-plated M12 Power, L-coded, CuNi, Gold-plated
Contact Bearer Material	PA / TPU
O-Ring Material	FKM
Mounting	2 hole screw mounting. Use standard M4 x 25 / 30 screws with toothed lock washer (as per DIN 125) and self-locking nuts.

EtherCAT

Protocol	EtherCAT
Connection	M12 4-poles, D-coded
Number of Connections	2
Specification	ETG.1000 V1.2
Transmission Rate	Fast Ethernet (10/100 Mbit/s), Full Duplex
Transmission Method	100 BASE-TX, with auto negotiation and auto crossing
Cycle Time / Update Rate	min. 250 µs
Addressing	Auto-increment addressing, fixed position addressing
Mailbox Protocols	CANopen over EtherCAT (CoE), File access over EtherCAT (FoE), Ethernet over EtherCAT (EoE)
Supported Network Protocols (Other)	Over EoE: HTTP, Ping, TCP/IP

IO-Link Master Channels

Number of IO-Link Master Channels	max. 8, configurable
Connection	M12, 5-poles, A-coded
IO-Link Class A Ports	8x, X1 to X8
IO-Link Specification	V1.1.3
Parameter Storage	Supported
Supported COM Modes	4.8 kBaud (COM 1), 38.4 kBaud (COM 2), 230.4 kBaud (COM 3)
Cycle Time / Update Rate	min. 1 ms for all channels at 32 Byte IN / OUT
Nominal Voltage	24 V DC via US (system power supply)
Nominal Current C/Q (Pin 4)	500mA
Nominal Current 1L+ (Pin 1)	4A
Permitted conductor length to device	≤ 20 m

Creator: STKU3 Released: FELI1	Document: DB381166714EN Version: 01	Page 2 of 5
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381166714	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS EC08IOLA08DIO	

Status Indicator (IOL)
Diagnostic Indicator

LED green per channel
LED red per port

Digital Input Channels

Number of Digital Input Channels	up to 16
Connection	M12, 5-poles, A-coded
Number of Ports	8x, X1 to X8
Channel Type	Type 1 acc. to IEC 61131-2
Input Wiring	2-, 3-, 4-wire
Nominal Voltage	24 V DC via US (module power supply)
Nominal Current	typ. 5 mA
Sensor Current Supply	max. 4A per port via Pin 1L+
Sensor Type	PNP
Input Voltage Range "0" signal	-3 V DC ... +5 V DC
Input Voltage Range "1" signal	15 V DC ... 30 V DC
Input Filter Time	configurable
Protective Circuit: Electronically	Overload protection, short-circuit protection
Status Indicator (Inputs)	LED white or yellow per channel
Diagnostic Indicator	LED red per port

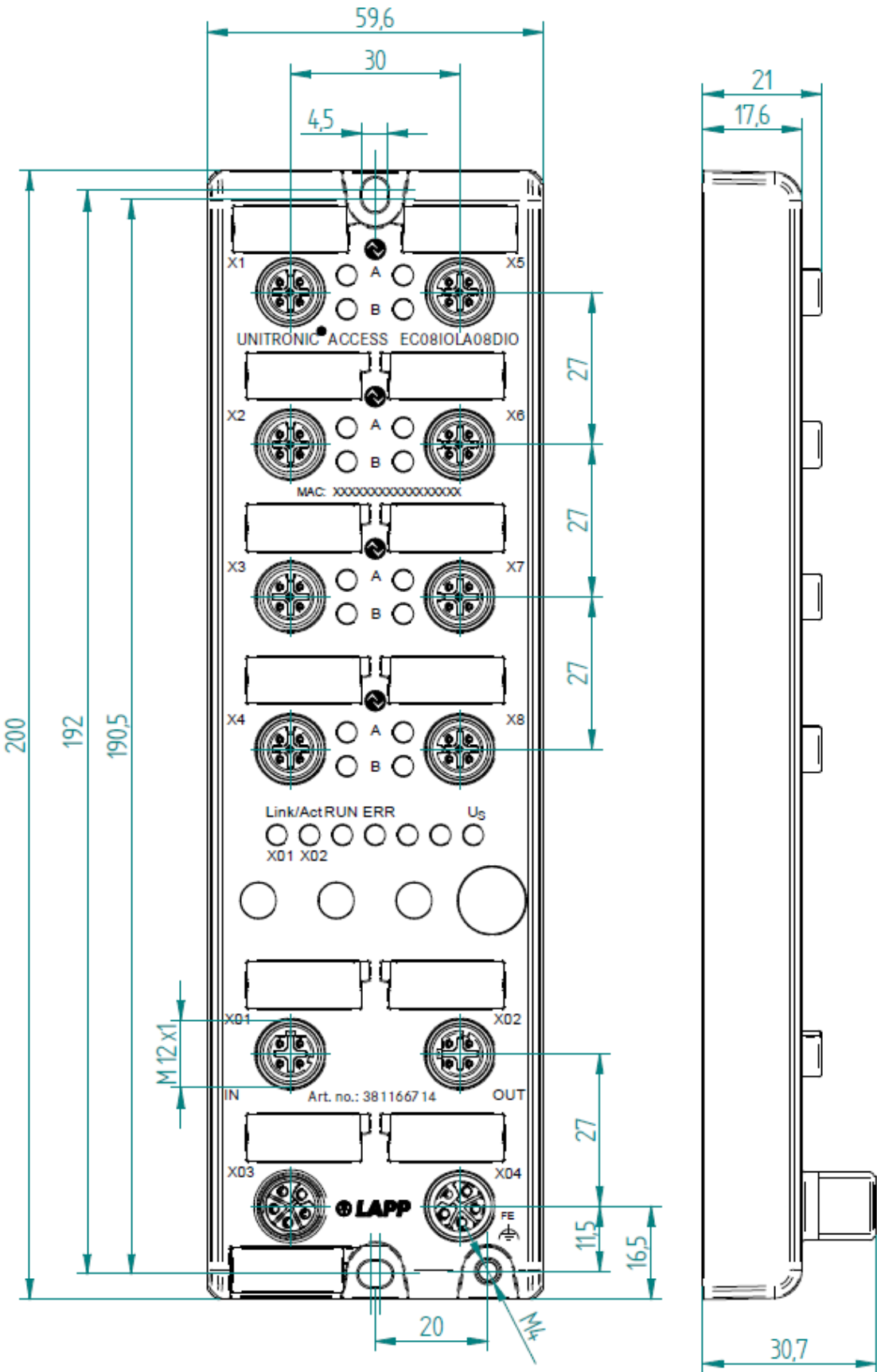
Digital Output Channels

Number of Digital Output Channels	up to 8
Connection	M12, 5-poles, A-coded
Number of Ports	8x, X1 to X8
Channel Type	p-switching
Output Wiring	2-, 3-wire
Nominal Voltage	24 V DC via US
Output Current per Channel	max. 500 mA
Galvanically Isolated	No
Protective Circuit: Electronically	Overload protection, short-circuit protection
Overload Behavior	Auto off and on switching / Manual restart
Status Indicator (Outputs)	LED white or yellow per channel
Diagnostic Indicator	LED red per port

Creator: STKU3 Released: FELI1	Document: DB381166714EN Version: 01	Page 3 of 5
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381166714	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS EC08IOLA08DIO	

Technical drawing



Creator: STKU3 Released: FELI1	Document: DB381166714EN Version: 01	Page 4 of 5
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381166714	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS EC08IOLA08DIO	

Standards and approvals

EMC

EN IEC 61000-6-2: 2019
EN 61000-6-4: 2007 + A1: 2011
IEC 61131-2: 2017

Approvals

CE
UL (E331560)
ETG
IO-Link

Application range

Automation, industrial machinery and plant engineering

Note

Do not connect / disconnect system power supply under voltage!

Photographs are not true to scale and do not represent detailed images of the respective products.

Creator: STKU3 Released: FELI1	Document: DB381166714EN Version: 01	Page 5 of 5
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