


381166712	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS PN08IOLA08DIO	

Description

- IO-Link Master, Single Protocol (PROFINET), 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	Profinet
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
381166712	UNITRONIC ACCESS PN08IOLA08DIO	8

Creator: STKU3 Released: FEL11	Document: DB381166712EN Version: 01	Page 1 of 5
-----------------------------------	--	-------------

381166712	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS PN08IOLA08DIO	

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	480 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.

Profinet

Protocol	PROFINET
Connection	M12 4-poles, D-coded
Number of Connections	2
Specification	V2.3
Conformance Class	C (CC-C)
Performance Class	RT (switch supports IRT)
Netload Class	III
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. 1 ms
Addressing	DCP
Fast Startup (FSU)	Supported, ≤ 4000 ms
Media Redundancy Protocol (MRP)	Supported, MRP client
Shared Device	Supported
Shared Input	not supported
Topology Detection	LLDP, SNMP V3
Easy Device Replacement	Supported, based on LLDP
Supported Network Protocols (Other)	ARP, HTTP, Ping, SNMP V1, TCP/IP

Creator: STKU3 Released: FEL11	Document: DB381166712EN Version: 01	Page 2 of 5
-----------------------------------	--	-------------

381166712	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS PN08IOLA08DIO	

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
Status Indicator (IOL)	LED green per channel
Diagnostic Indicator	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

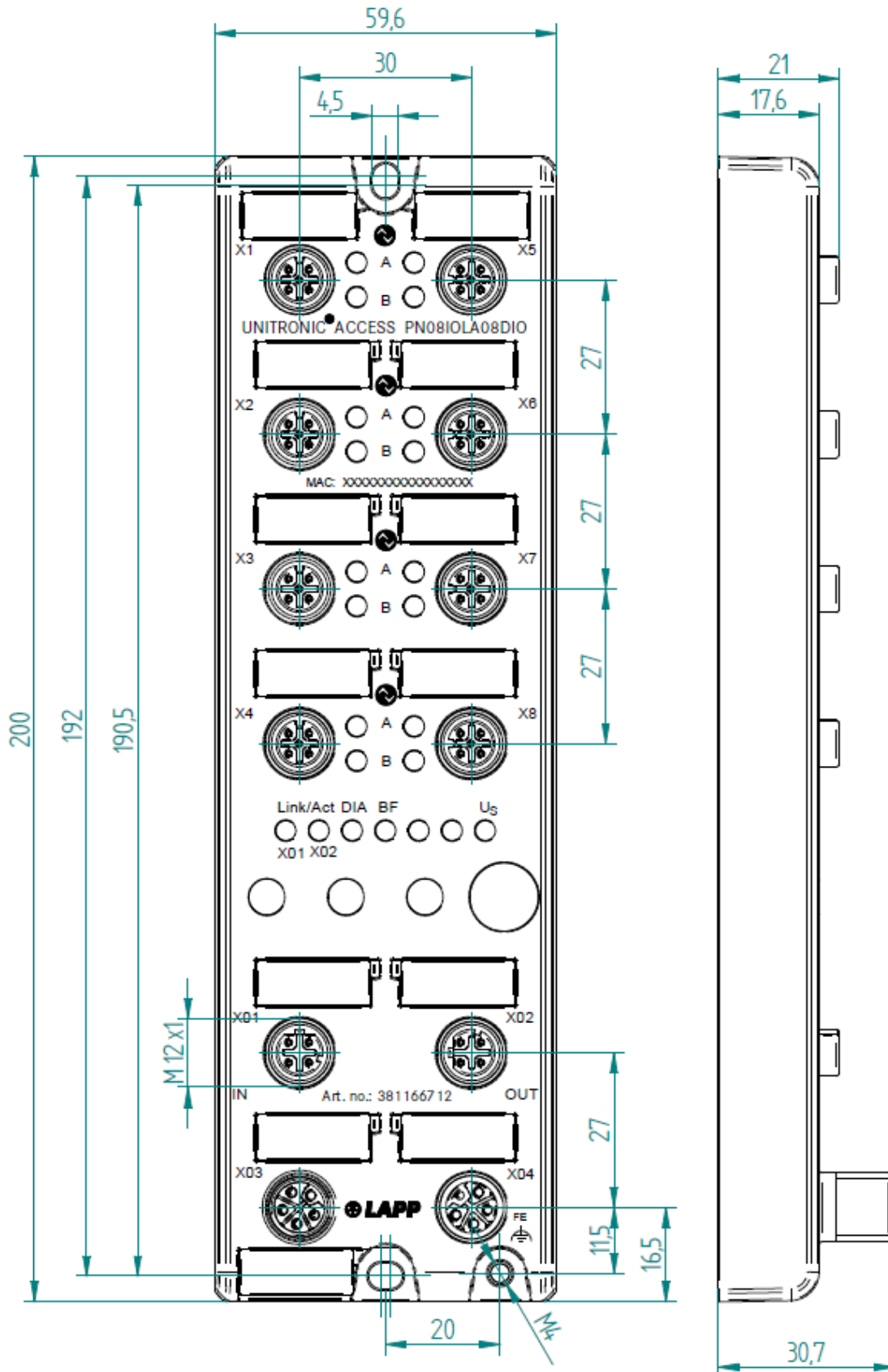
Digital Output Channels

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: DB381166712EN Version: 01	Page 3 of 5
-----------------------------------	--	-------------

381166712	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS PN08IOLA08DIO	

Technical drawing



Creator: STKU3 Released: FELI1	Document: DB381166712EN Version: 01	Page 4 of 5
-----------------------------------	--	-------------

381166712	DATA SHEET	
Valid from: 10.02.2025	UNITRONIC ACCESS PN08IOLA08DIO	

Standards and approvals

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

Approvals

CE
UL (E331560)
PNO
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: DB381166712EN Version: 01	Page 5 of 5
-----------------------------------	--	-------------