Belden | lumbergautomation
A BELDEN BRAND

LioN-X® Digital I/O Modules

eXcellent performance.
Smart-flexible-secure.

Product Bulletin

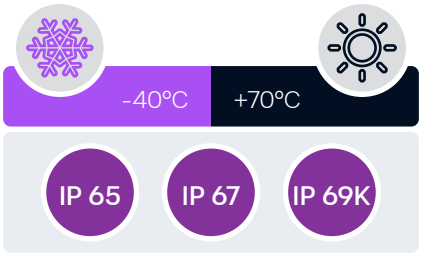
The new, innovative LioN-X Digital I/O Modules offer highest adaptability with five Industrial Ethernet and four IIoT Protocols onboard while also ensuring advanced security. Four different Input/ Output variants provide maximum flexibility for your application.

- **Versatile integration options** thanks to five implemented Fieldbus protocols and four Industrial Internet of Things (IIoT) protocols.
- **Robust and sturdy metal housing** for demanding environmental conditions.
- **Innovative security functions** — ACHILLEStested, Syslog available for collecting, storing and processing log messages.

PROFINET INDUSTRIAL ETHERNET
EtherCAT®
EtherNet/IP™
CC-Link IE Field Basic
Modbus
CoAP
MQTT
OPC UA
{ REST API }

Key features

- Enabling IIoT and Industry 4.0 with MQTT, OPC UA, REST and CoAP onboard
- Flexible integration in various PLC environments thanks to Multiprotocol support: PROFINET®, EtherCAT, EtherNet/ IP, Modbus TCP, CC-Link IE Field Basic
- Available as 16DIO, 8DI/8DO and 16DI version
- 8DI/8DO available with or without galvanic isolation
- Cost-effective integration of digital sensors and actuators



The new LioN-X Digital I/O Modules from Lumberg Automation offer a wide range of integration options in both common PLC environments and cloud applications. Industry 4.0 is now becoming a reality.

LioN-X® Digital I/O Modules — benefits at a glance

- I/O function available in 16DIO (universal), 16DI and 8DI/8DO (two versions*).
- Output current up to 2A per port.
- Cloud connection can be established via IIoT protocols (OPC UA, MQTT, CoAP, REST).
- Expanded temperature range (-40°C to +70°C).
- Welding spark-resistant metal housing in IP67, IP69K.
- Web server available.

Applications

The LioN-X Digital I/O Modules suit almost all industrial applications, especially those that involve harsh environmental conditions, and enable effortless integration of digital sensors and actuators.

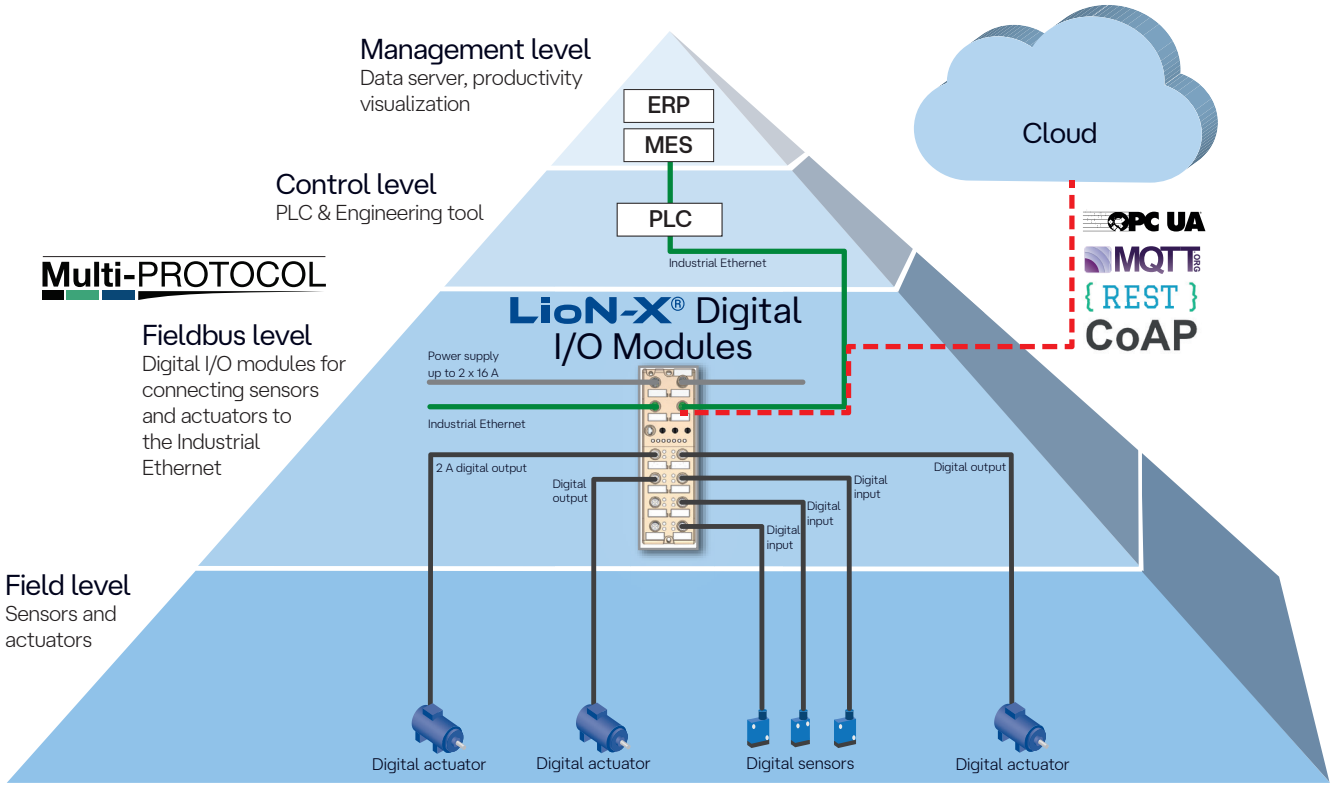
Markets

The LioN-X Digital I/O Modules are a perfect fit for numerous markets and industries, such as consumer packaged goods, material handling and intralogistics, as well as automotive.

*Galvanic isolation

For some applications, galvanic isolation between the actuator supply and system/sensor supply is an unnegotiable requirement. Therefore, the LioN-X Digital I/O Module series offers two versions of the 8DI/8DO module, one with and one without galvanic isolation (see table on page 3).

LioN-X Digital I/O Modules — IT/OT convergence



LioN-X Digital I/O Modules — an overview

Type	LioN-X 16DIO	LioN-X 16DI	LioN-X 8DI/8DO with galvanic isolation	LioN-X 8DI/8DO without galvanic isolation
	X1...X8: 16DIO Channels 	X1...X8: 16DI Channels 	X1...X4: 8 Digital Inputs X5...X8: 8 Digital Outputs  **DOs supplied by U_L, galvanically isolated**	X1...X4: 8 Digital Inputs X5...X8: 8 Digital Outputs  **DOs supplied by U_L, but not galvanically isolated**
Item description	0980 XSL 3900-121-007D-01F	0980 XSL 3901-121-007D-01F	0980 XSL 3903-121-007D-01F	0980 XSL 3923-121-007D-01F
Part number	935705001	935706001	935707001	935708001
I/O function	16 digital in-/output-channels (universal I/O)	16 digital input channels	8 digital input and 8 digital output channels	8 digital input and 8 digital output channels
DI max. sensor current supply	max. 4 A per port	max. 4 A per port	max. 4 A per port	max. 4 A per port
DO max. current per channel	max. 2 A	-	max. 2 A	max. 2 A
Max. output current per module	max. 16 A	max. 16 A	max. 16 A	max. 16 A
Galvanic isolation	-	-	Yes	-
Current and voltage monitoring	For all Outputs	Voltage measurement only	For all Outputs	For all Outputs

Why LioN-X®Digital I/O Modules?

Multiprotocol

The trend toward ever-smaller batch sizes and the fulfillment of individual customer requests increasingly requires a highly flexible and efficiently automated production environment. To achieve this, the new LioN-X Digital I/O Modules enable simple connection of digital I/O signals to various fieldbuses and IIoT applications. In addition to PROFINET, EtherNet/IP, EtherCAT, Modbus TCP and CC-Link IE Field Basic on the PLC side, there are connection options to the cloud via OPC UA, MQTT, REST and COAP.

Choose LioN-X Digital I/O Modules and take advantage of high flexibility in a single module, without the additional cost of components you don't need!

Security

With the increase of global networking, automation networks need to be prepared for the secure integration into IIoT environments. For example, remote maintenance applications require meticulous security mechanisms to prevent unauthorized access.

The new LioN-X Digital I/O Modules have been tested and certified by ACHILLES, while Syslog allows for collection, storage and processing of log messages.

Minimize unauthorized remote maintenance access and attacks on your network with the ACHILLES-tested LioN-X Digital I/O Modules.

Multi-PROTOCOL

Accessories

Number		Item number	Type	Function
1		33268	ASBS 2 M12-5S 1-2 F	T-Splitter Sensor/Actuator M12 to M12
2		27764	ASBS 2 M12-5S F	T-Splitter Sensor/Actuator M12 to M12
3		30088	RST 5-RKT 5-228/5 M	Sensor/Actuator Cable
4		934849076	RKT 5L-949/5 M	Power Supply Cable
5		12121	0985 342 104/5 M	Ethernet Cable