

The MD7 system IO-Link master and hubs for wide range of automation tasks



Advantages for you at a glance

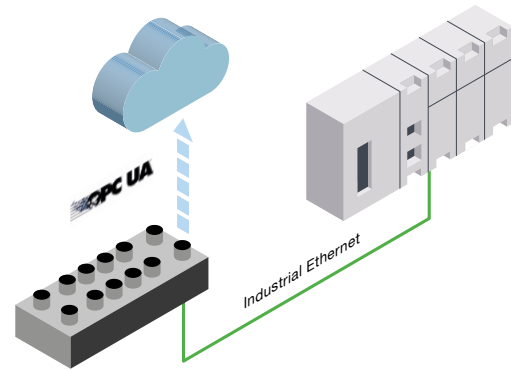
- Flexible planning and reduced stocking costs
- Reduced installation effort and efficient use of tight installation spaces
- Convenient remote parameterization of sensors and actuators
- Reduced costs over the entire life cycle of the system thanks to preventive maintenance options
- High level of standardization in the machine thanks to a coordinated system

Interfaces	Multiprotocol: Ethernet IP/PROFINET, Modbus; IO-Link 1.1
Ethernet/ fieldbus connection	2x M12 D-coded
Features	8x IO-Link pin 4 in IOL mode, 4x DIO + 8 SIO mode, 4x DO
Configuration options	Web server, Leuze Service Tool
Fast Startup/Quick Connect	150 ms
Dimensions	Narrow design in 30 mm and 60 mm
Temperature range	-40 to +70 °C
Degree of protection	IP 65/67 IP 69K (as agreed)

Highlights

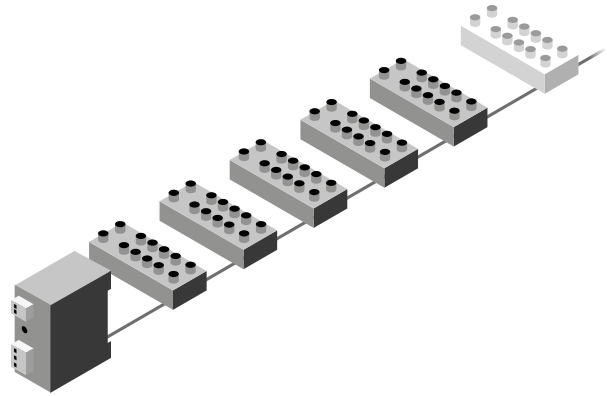
Flexible integration in control and cloud

IO-Link masters from Leuze are capable of working with different protocols. They support the Ethernet-based fieldbus protocols PROFINET and Ethernet/IP, as well as Modbus TCP. This means that the modules can be used with most popular controls. The level of standardization of the machine is increased, and the lower complexity results in reduced stocking costs and less complex maintenance. Leuze is also offering a device model based on the OPC UA standard, which can be integrated directly into cloud-based systems. With its web-based configuration, it can also be operated as a standalone solution.



Reduced installation effort

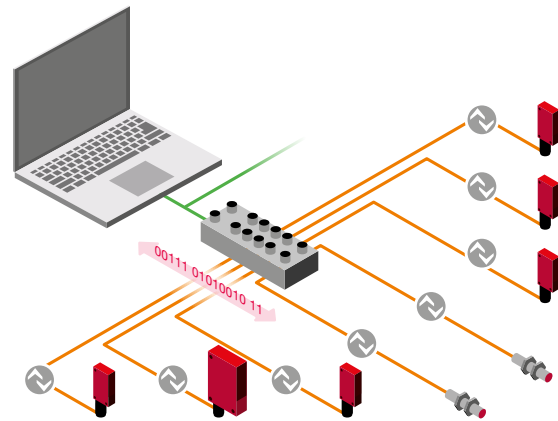
The IO-Link modules from Leuze are powered via standard M12 connectors. Thanks to multi-protocol capability, a single device type can thus be used for Ethernet and PROFINET connection. This reduces the number of models needed and simplifies stocking. With a maximum admissible current of up to 16 A, the L-coded M12 connectors also offer around 80% more power than 7/8" connectors. More modules can be daisy-chained without requiring any additional power. Fewer power supplies are needed and parallel wiring is reduced, so that even tight installation spaces can be exploited to the fullest extent.



High transparency

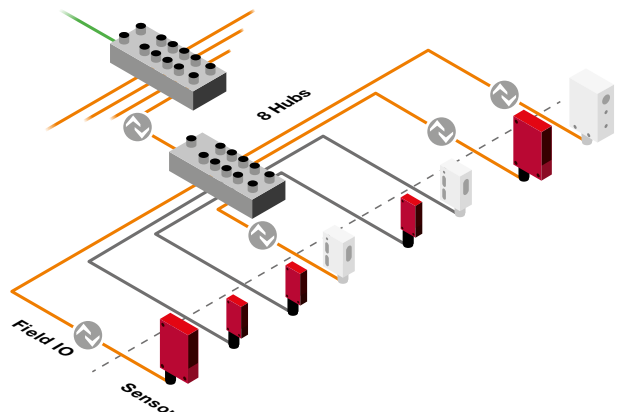
The MD7 system offers high data and process transparency. The masters offer a multitude of ways to retrieve diagnostic data and status information – either right on the device or via a web server. IO-Link devices can be fully configured via the web server with IODD interpreter. And with the Leuze Service Tool, we are offering another powerful software with the following functions (among others):

- Device management: Find Leuze devices automatically in the network, display of device type and firmware version
- Efficient network configuration, e.g., IP address assignment
- Fast identification of individual devices in the network using the WINK function (flashing LED display)
- Backup of device settings



Integrated system

A coordinated system of IO-Link masters and sensors increases the level of standardization of your machine. IO-Link hubs allow for a large number of digital sensors to be cost-effectively integrated into your system. As one of the founding members of the IO-Link consortium, Leuze has been actively involved in the further development of the open interface standard since 2002. This ensures that I/O modules with IO-Link technology from Leuze also communicate smoothly with components from other manufacturers, thus giving you a future-proof investment.



Technical data

IO modules



Type	MD 798i*	MD 748i	MD 798i IO-Link	MD 742 IO hub M12	MD 742 IO hub M8
Interfaces	Multiprotocol: Ethernet IP/PROFINET, Modbus	Ethernet IP/PROFINET, Modbus; IO-Link 1.1, OPC UA	Multiprotocol: Ethernet IP/PROFINET, Modbus; IO-Link 1.1	IO-Link 1.1	IO-Link 1.1
Connection type	M12 metal thread	M12 metal thread	M12 metal thread	M12 metal thread	M8 metal thread
Communication port	2x M12 D-coded	2x M12 D-coded	2x M12 D-coded	1x M12 A-coded	1x M12 A-coded
Voltage supply	M12 5-pin, 18 ... 30 V DC	M12 5-pin, 18 ... 30 V DC	M12 5-pin, 18 ... 30 V DC	M12 5-pin, 18 ... 30 V DC	M12 5-pin, 18 ... 30 V DC
Sensor supply	V1 + V2 max. 11 A per module, max. 2 A per A port, max. 4 A per B port		V1 + V2 max. 11 A per module, max. 2 A per A port, max. 4 A per B port	Max. 120 mA per port	Max. 0,5 A for C0 ... C3 Max. 0,5 A for C4 ... C7
Ports	8 ports	8 ports	8 ports	8 ports	8 ports
Pins	5-pin	5-pin	5-pin	5-pin	3-pin
Features	16 digital PNP inputs	8x IO-Link pin 4 in IOL mode 4x DIO + 8 SIO mode 4x DO	8x IO-Link pin 4 in IOL mode 4x DIO + 8 SIO mode 4x DO	16 digital PNP inputs COM 2 / 38.4 kBit/s	8 digital PNP inputs COM 2 / 38.4 kBit/s
Integrated switch	●	●	●		
IO-Link		●	●	●	●
Web server	●	●	●		
Configuration software	●	●	●		
Fully encapsulated electronics	●	●	●	●	●
Fast startup	●	●	●		
Dimensions	60.4 x 230.4 x 39 mm	65 x 210.4 x 30 mm	60.4 x 230.4 x 39 mm	54 x 150 x 27.4 mm	32 x 144.3 x 32 mm
Temperature range	-40 ... 70 °C	-25 ... 60 °C	-40 ... 70 °C	-40 ... 70 °C	-40 ... 70 °C
Degree of protection	IP 65 / 67 / 69K**	IP 65 / 67	IP 65 / 67 / 69K**	IP 65 / 67 / 69K**	IP 65 / 67 / 69K**
Certifications	CE, UL	CE, UL	CE, UL	CE, UL	CE, UL
Start-up support Leuze Service Tool	Search in network for Leuze devices Assignment of IP addresses Identification of devices using the WINK function Display of the device type and firmware version				

*coming soon

**subject to consultation, please contact us

Accessories for connection technology



**Power supply master
M12 L-coded**

5-pin; suitable for IO/IO-Link master,
PUR



**Actuator cable
M12 A-coded**

5-pin; suitable for IO-Link hub and
actuator with B-port, PVC/PUR



**Sensor cable
M12 A-coded**

3-pin; suitable for sensor with A port,
PVC/PUR



**Sensor cable
M8**

3-/4-pin; suitable for sensor with
A port, PVC/PUR

PVC: For average operating conditions PUR: For rough operating conditions

Suitable IO-Link products



HT 3C
Diffuse sensor with
background suppression



DRT 25C
Dynamic reference diffuse
sensor



HRT 25
Diffuse sensor with
background suppression



ODS 9
Optical distance sensor



RK 46 C
Unpolarized retro-reflective
photoelectric sensor



KRT 18B
Contrast sensor



PRK 18 B
Polarized retro-reflective
photoelectric sensor



LCS-1
Capacitive sensor



HTU 430
Ultrasonic sensor



DMU 418
Ultrasonic distance sensor



GSU 14E
Ultrasonic fork sensor



LV 463
Fiber optic amplifiers



CML 730
Light curtain receiver

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