Leuze electronic

HVS
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the sensor people

Optical Data Transmission DDLS 200

Robust, compact and international communication capabilities

PRODUCT INFORMATION

DDLS 200 – the alternative to WLAN from Leuze electronic.

Free from contact and wear, immune to interference.

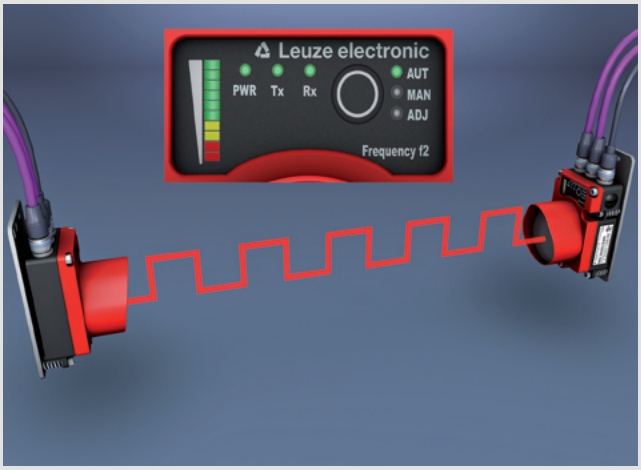
The DDLS 200 optical data transceiver from Leuze electronic transmits data from industrial networks via infrared light without contact or wear. Transmission is fast, deterministic and immune to interference. The method of function is absolutely transparent: This means that the optical data transceiver does not represent a participant on a given network, but rather handles data communication without intervening in the communication process. Thus, it functions as reliably and as simply as a copper cable.

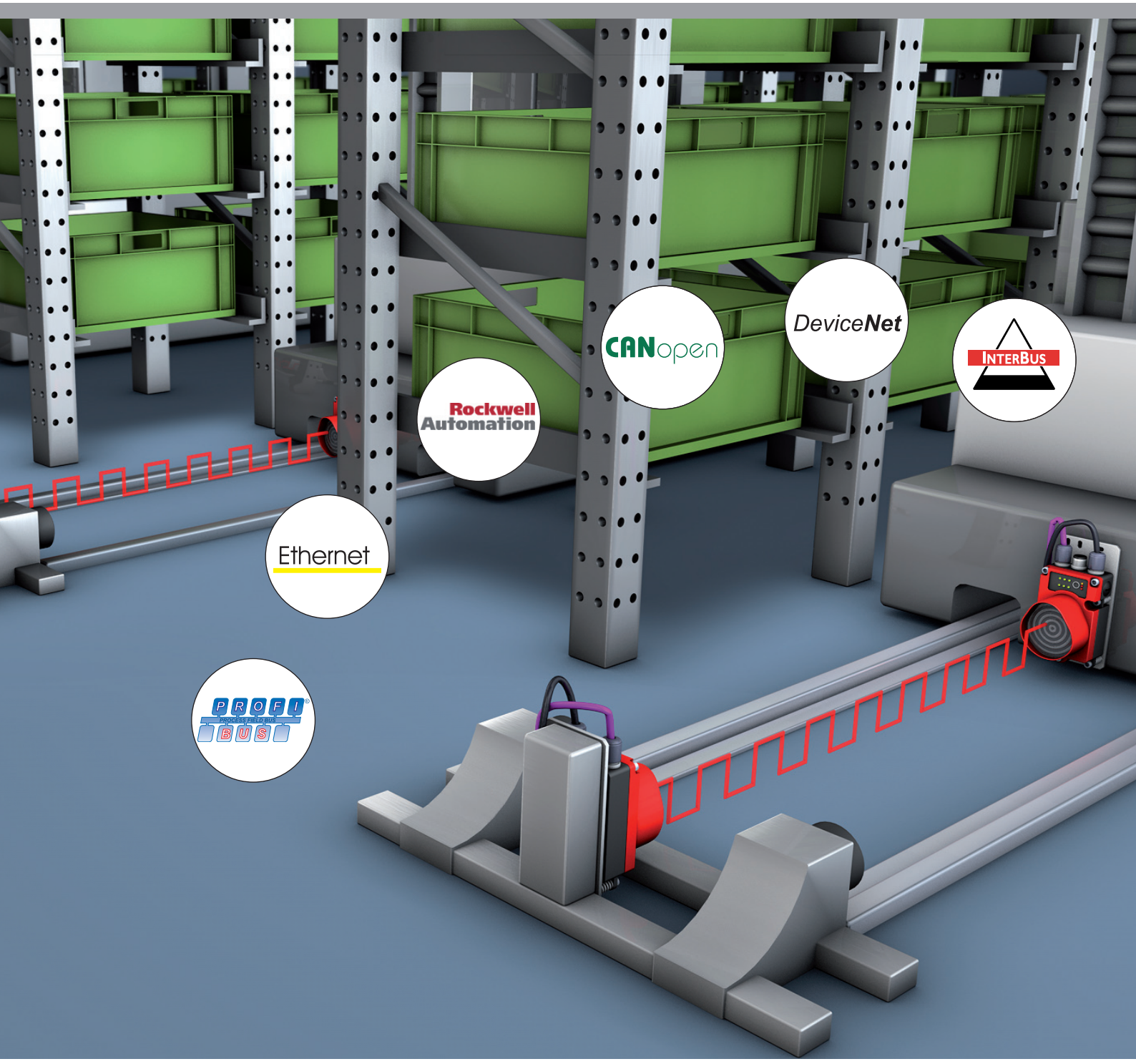
- The optical data transceivers are used primarily in plant engineering, especially in applications where industrial networks such as PROFIBUS, DeviceNet or Ethernet etc. are transmitted to system components which are moved. Examples include high-bay storage devices, gantry crane bridges or side-tracking skates.

- The DDLS 200 supports all of the major international interfaces.

- Infrared data transmission protects the DDLS 200 from interference.

- The fast transmission rates and enormous operating ranges of up to 500 m make the DDLS 200 an essential centrepiece in modern plant engineering.

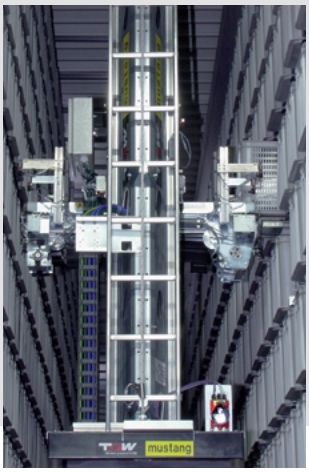


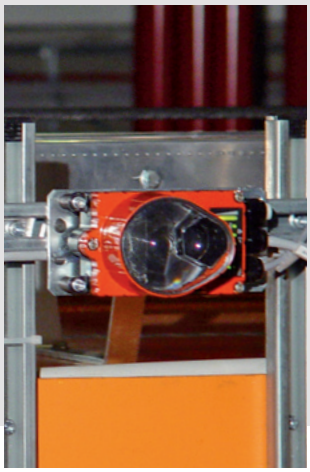

CANopen
DeviceNet
INTERBUS
Rockwell Automation
Ethernet
PROFIBUS
PROCESS FIELD BUS

Decisive advantages

of the DDLS 200 optical data transceiver.

- Integrated mechanics for fastening and aligning the data path. The result: very simple mounting.
- Robust metal housing with protection class IP 65 offers optimum protection against electromagnetic interference injection.
- M12 connections with ready-made cables make the connection of additional M12 participants incredibly simple and error free.
- The integrated control panel with diagnostic functions provides extensive information on the status of the data communication. Signal strengths, transmitted and received data, the alignment or light beam interruptions are reliably displayed.





- The integrated and patented alignment method facilitates the alignment of both devices by one person and can be activated with a simple push of a button.

- One for all. The DDLS 200 series supports all major international interfaces such as PROFIBUS, Ethernet, DeviceNet, CANopen etc. Individual approvals, such as UL for the American market, have been obtained.

- During use in extreme environmental conditions, e.g. outdoors or in deep-freeze warehouses, integrated heating ensures reliable and fault-free operation at temperatures as low as -30 °C.

Interface variants
of the DDLS 200 series.





Sensing distance from 0.2 m	30 m 80 m 120 m 200 m 300 m 500 m	30 m 80 m 120 m 200 m 300 m	30 m 80 m 120 m 200 m 300 m	30 m 80 m 120 m 200 m 300 m	30 m 80 m 120 m 200 m 300 m 500 m
Baud rate	9.6 kbits/s – 1.5 Mbits/s	10 Mbits/s / 100 Mbits/s	57.6 kbits/s – 234.4 kbits/s	125 kbits/s – 1 Mbits/s	100 kbits/s* 500 kbits/s 2 Mbits/s
Protocols	FMS DP MPI RS 485	All protocols based on TCP/IP and UDP	DH+ R I/O	DeviceNet CANopen	Interbus 500 kbits/s Interbus fibre-optic cable 2 Mbits/s RS 422 500 kbits/s
Approvals	c SA us c UL us LISTED	c SA us c UL us LISTED	c SA us c UL us LISTED	c SA us c UL us LISTED	c SA us c UL us LISTED
Connection	M12 or terminals	M12 or terminals	Terminals	Terminals	Terminals Fibre-optic cable (FOC)

* for 500 m models

Technical data

Electrical data	
Supply voltage	18 … 30 V DC
Current consumption without optics heating	approx. 200 mA with 24 V DC
Current consumption with optics heating	approx. 800 mA with 24 V DC
Optical data	
Opening angle	± 0.5° with respect to the optical axis for 120 m … 500 m models
	± 1.0° with respect to the optical axis for 80 m models
	± 1.5° with respect to the optical axis for 30 m models
Input/output	
Input	0 … 2 V DC: transmitter/receiver deactivated 18 … 30 V DC: transmitter/receiver activated
Output	0 … 2 V DC: normal operation Vin – 2 V DC: limited performance reserve Output current max. 100 mA, short-circuit proof
Operating and display elements	
Membrane buttons	change of operating mode
Individual LEDs	indicate voltage supply, operating mode, data traffic (depends on the model)
LED strip	bar graph display of the receiving level
Mechanical data	
Protection class	IP 65 acc. to EN 60529
Weight	approx. 1200 g
Housing	aluminium diecast; light inlet/outlet, glass
Environmental data	
Operating temperature	-5 °C ... +50 °C without integrated heating -30 °C ... +50 °C with integrated heating (non-condensing)
Air humidity	max. 90 % rel. humidity, non-condensing
EMC	EN 61000-6-2:2005 and EN 61000-6-4:2001
UL listed	acc. to UL 60950 and CSA C22.2 No. 60950

Additional technical data is available for download at www.leuze.com

Optical Electronic Sensors

Cubic Series
Cylindrical Sensors, Mini Photoelectric Sensors, Fibre Optic Amplifiers
Measuring Sensors
Special Sensors
Light Curtains
Forked Sensors
Double Sheet Testing Unit, Splice Detection
Accessories

Identification Systems
Data Transmission Systems
Distance Measurement

Barcode Readers
RF IDent Systems
Modular Connector Units
Industrial Image Processing Systems
Optical Data Transmission Systems
Optical Distance Measurement/Positioning
Hand-Held Readers

Safety Sensors
Safety Systems
Safety Services

Safety Laser Scanners
Safety Light Curtains
Transceivers and Multi Light Beam Safety Devices
Single Light Beam Safety Devices
AS-i-Safety Product Range
Safety Sensor Technology for PROFIBUS DP
Safety Switches and Safety Locking Devices
Safety Relays and Safety Interfaces
Sensor Accessories and Signal Devices
Safety Engineering Software
Machine Safety Services

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