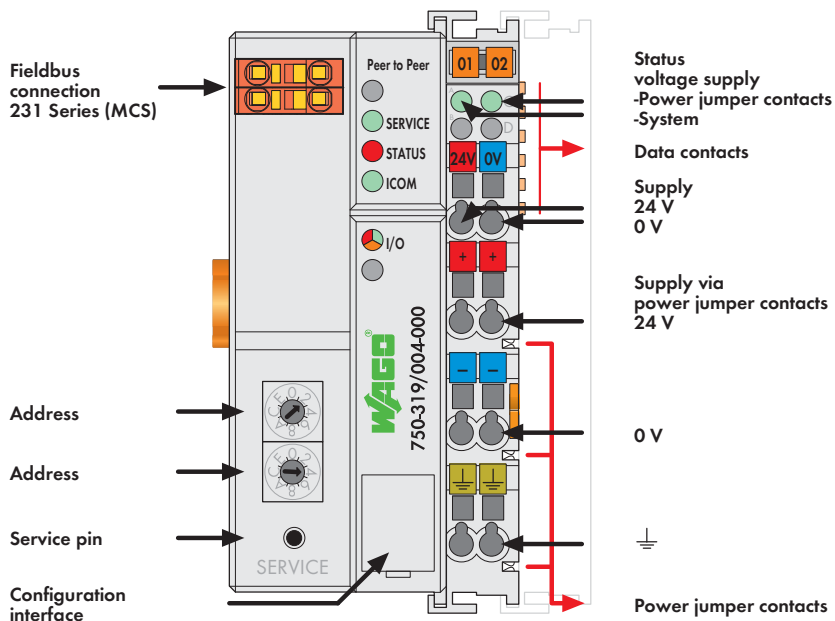


LON[®] Data Exchange Coupler (Peer to Peer)

78 kbps; digital and analog signals



The data exchange coupler transfers the input process image data to the output process image of the coupled partner. The data exchange coupler is a variant of the LON[®] fieldbus coupler.

Applications:


- **Peer to Peer**
one master and one slave
- **Broadcast**
one master and several slaves

The coupler, together with I/O modules, is a fieldbus node which is connected to other nodes by means of a twisted wire pair. The coupler can also be integrated into existing LON[®] networks if appropriate node addresses are available.

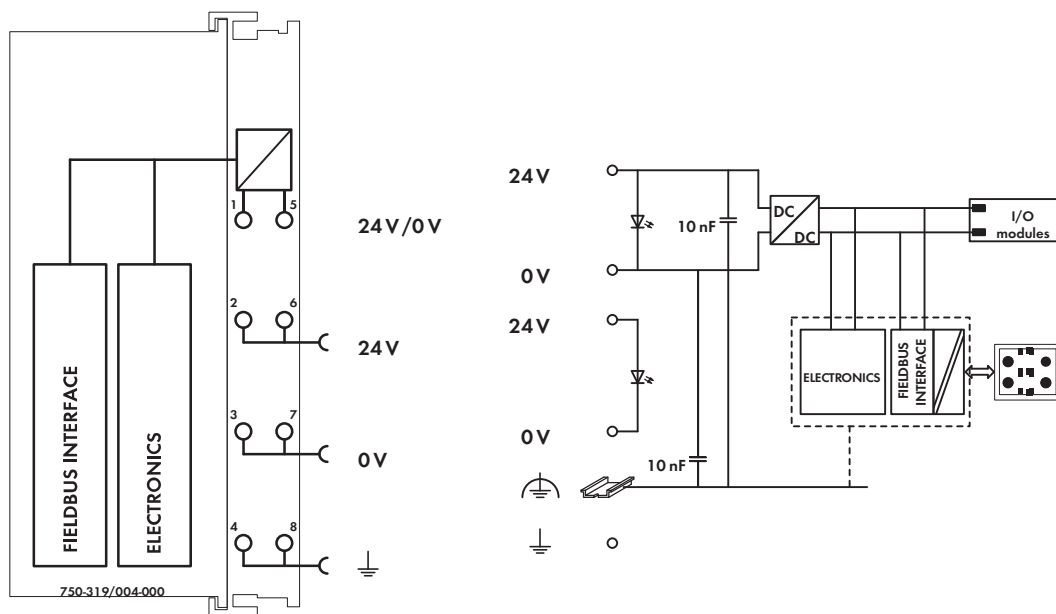
The coupler automatically creates the process image using the types and widths of data of the connected I/O modules. The input process image is transferred to the output process image of the partner or partners.

The monitoring system switches digital outputs off or stores the last analog value if the connection to the coupled partner is interrupted longer than 1 second.

LON[®] is a registered trademark of Echelon Corporation.

Description	Item No.	Pack. Unit
Peer to Peer Coupler	750-319/004-000	1
Accessories		
Miniature WSB Quick marking system		
 plain	248-501	5
with marking	see pages 352 ... 353	
Approvals		
Also see "Approvals Overview" in Section 1		
Conformity marking	CE	
UL 508		
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4	
IEC 60079-0, -15	BR-Ex nA II T4	
EN 60079-0, -15	I M2 / II 3 GD Ex nA nL IIC T4	
EN 61241-0, -1		

System Data	
No. of couplers connected to Master	64 without repeater, 127 with repeater
Transmission medium	Twisted pair - FTT
Max. length of fieldbus segment	500 m (free topology) 2700 m (bus-topology)
Topology	in accordance with LON specification
Baud rate	78 kbps
Buscoupler connection	2-pole male connector, 231 Series (MCS), female connector (231-302) (included)



Technical Data

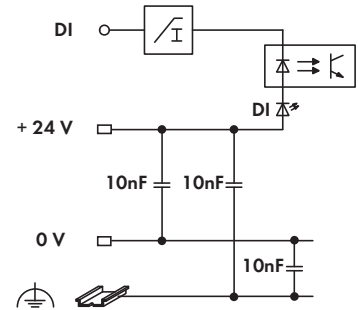
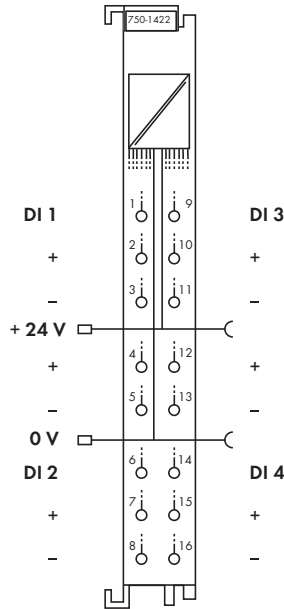
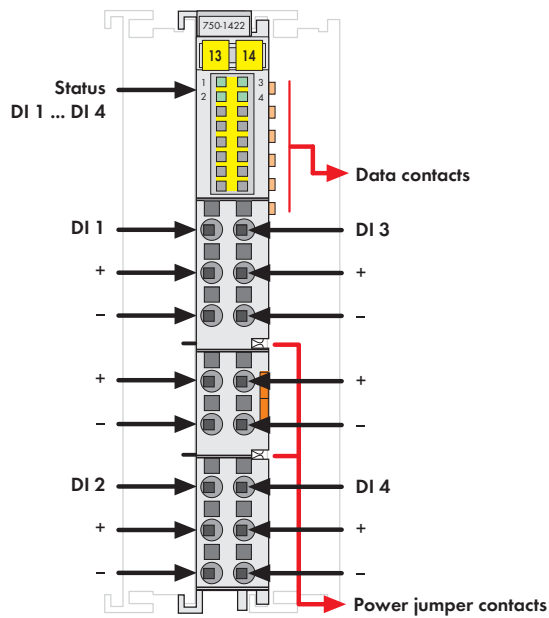
Number of I/O modules	62
Digital signals	max. 248 (in- and outputs)
Analog signals	max. 124 (in- and outputs)
Configuration	via PC with LON Interface
Power supply	24 V DC (-15 % ... +20 %)
Max. input current (24 V)	500 mA
Efficiency of the power supply	87 %
Internal current consumption (5 V)	300 mA
Total current for I/O modules (5 V)	1700 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	24 V DC (-15 % ... +20 %)
Current via power jumper contacts (max.)	10 A DC
Transceiver	FTT 10 A

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm ² ... 2.5 mm ² / AWG 28 ... 14
Stripped lengths	8 ... 9 mm / 0.33 in
Dimensions (mm) W x H x L	51 x 65 x 100
	Height from upper-edge of DIN 35 rail
Weight	200 g
Storage temperature	-25 °C ... +85 °C
Relative air humidity (no condensation)	95 %
Vibration resistance	acc. to IEC 60068-2-6
Shock resistance	acc. to IEC 60068-2-27
Degree of protection	IP20
EMC: CE - immunity to interference	acc. to EN 61000-6-2 (2005)
EMC: CE - emission of interference	acc. to EN 61000-6-4 (2007)

1 4-Channel Digital Input Module 24 V DC

170 Low-side switching, 3-conductor connection



The digital input module provides 4 channels in 3-wire connection at a width of just 12mm (0.47in).

It receives binary control signals from digital field devices (e.g., sensors, encoders, switches or proximity switches).


CAGE CLAMP[®]S terminations provide direct insertion of solid conductors.

Each input channel has a noise-rejection RC filter with a 3.0/0.2ms time constant.

A green LED indicates the switched status of each channel.

An optocoupler provides electrical isolation between the bus and the field side.

210-719 operating tool (2.5mm blade) is required to open the CAGE CLAMP[®]S.

Description	Item No.	Pack. Unit
4DI 24V DC 3.0ms, low-side switching, 3-conductor	750-1422	1
4DI 24V DC 0.2ms, low-side switching, 3-conductor	750-1423	1
Accessories		
Miniature WSB Quick marking system		
 plain	248-501	5
with marking	see pages 352 ... 353	
Operating tool, with partially insulated shaft,		
Type 1, blade (2.5 x 0.4) mm	210-719	1
Approvals		
Also see "Approvals Overview" in Section 1		
Conformity marking	CE	
Shipbuilding	ABS, DNV, GL, KR	
UL 508		

Technical Data	
Number of inputs	4
Current consumption (internal)	7 mA
Voltage via power jumper contacts	24 V DC (-25 % ... +30 %)
Signal voltage (0)	(V _v - 5 V DC) ... V _v
Signal voltage (1)	-3 V DC ... (V _v - 15 V)
Input filter	3.0 ms (750-1422) 0.2 ms (750-1423)
Input current (typ.)	-0.6 mA (at -3 V ... +5 V DC) -2.3 mA ... -2.7 mA (at 15 V ... +32 V DC)
Isolation	500 V system/field
Wire connection	CAGE CLAMP [®] S
Cross sections	solid: 0.08 mm ² ... 1.5 mm ² / AWG 28 ... 16 fine-stranded: 0.25 mm ² ... 1.5 mm ² / AWG 22 ... 16
Stripped lengths	8 ... 9 mm / 0.33 in
Width	12 mm
Weight	50 g