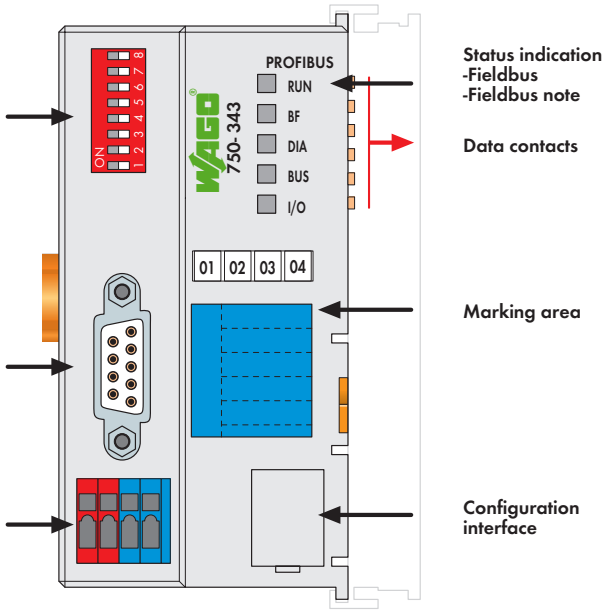
PROFIBUS DP ECO Fieldbus Coupler

12 Mbaud; digital and analog signals



The ECO fieldbus coupler is designed for applications with a reduced scale I/O requirement. Using digital only process data or small amounts of analogs, while retaining all of the choice that's offered by the Series 750 I/O.

The coupler has an integrated supply terminal for the system voltage. The field power jumper contacts are supplied via a separate supply module.

When initializing, the buscoupler determines the module structure of the node, to create the process image in PROFIBUS. In order to optimize addresses, the I/O modules with a bit width smaller than 8 are grouped in one byte.

Notice: GSD files required

It is furthermore possible to deactive I/O modules and to modify the image of the node according to the connected signals without having to modify the existing application.

The diagnosis concept is based on diagnostics according to the EN 50170 standard. Therefore the programming of modules is not necessary to interpret the diagnostic information from each manufacturer.

Description	Item No.	Pack. Unit
PROFIBUS DP ECO 12 MBd	**750-343**	1

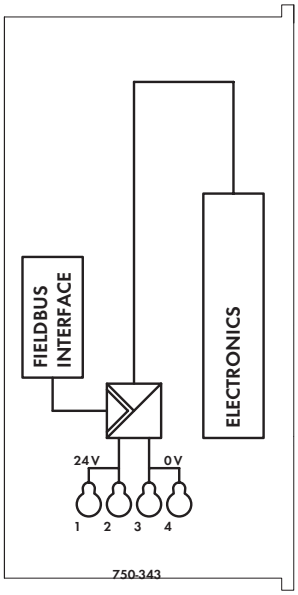
Accessories		Item No.	Pack. Unit
GSD files	Download: www.wago.com		
Miniature WSB Quick marking system			
	plain	**248-501**	5
	with marking	see pages 304 ... 305	

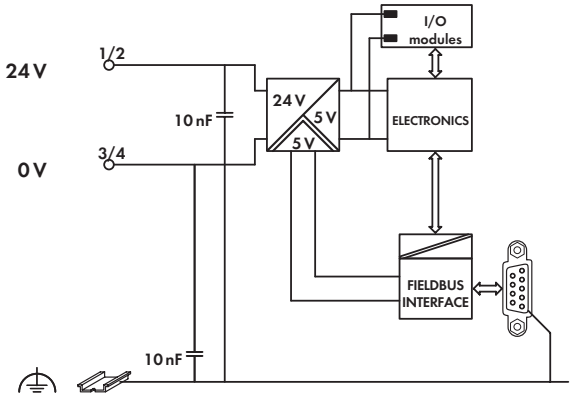
Standards and Approvals

Standard	EN 50170
Conformity marking	CE
UL 508	
ANSI/ISA 12.12.01	Class I, Div. 2, Grp. ABCD, T4
EN 60079-15	I M2 / II 3 GD Ex nA nL IIC T4
	BR-Ex nA II T4
Shipbuilding	see "Approvals Overview" in section 1

System Data

No. of couplers connected to Master	125 with repeater
Max. no. of I/O points	approx. 6000 (depends on master)
Transmission medium	Cu cable acc. to EN 50170
Max. length of fieldbus segment	100 m ... 1200 m (depends on baud rate/cable)
Baud rate	9.6 Kbaud ... 12 Mbaud
Transmission time	typ. 1 ms (10 couplers; 32 digital I/Os per coupler at 12 Mbaud) max. 3.3 ms
Buscoupler connection	1 x D-Sub 9; socket





Technical Data

Number of I/O modules	63
Fieldbus	
Max. input process image	32 bytes
Max. output process image	32 bytes
Configuration	via PC or PLC
Voltage supply	24 V DC (-15 % ... +20 %)
Input current typ. at rated load (24 V)	260 mA
Efficiency of the power supply (typ.) at	
nominal load (24 V)	80 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	650 mA

General Specifications

Operating temperature	0 °C ... +55 °C
Wire connection	CAGE CLAMP®
Cross sections	0.08 mm² ... 1.5 mm² / AWG 28 ... 14
	AWG 12 /14: THHN, THWN
Stripped lengths	5 ... 6 mm / 0.22 in
Dimensions (mm) W x H x L	50 x 65 x 97
	Height from upper-edge of DIN 35 rail
Weight	115 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)
EMC marine applications - Immunity to	
interference	acc. to Germanischer Lloyd (2003)
EMC marine applications - Emission of	
interference	acc. to Germanischer Lloyd (2003)