1.2

24 V

0 V

10 nF

24 V
5 V
5 V

I/O modules

ELECTRONICS

FIELDBUS INTERFACE

1/2

3/4

10 nF

1) 2)

1) 1 MΩ
2) 10 nF / 500 V

750-347

Technical Data	
Number of I/O modules	64
Fieldbus	
Max. input process image	32 bytes
Max. output process image	32 bytes
Configuration	via PC or PLC
No. of PDOs	5 Tx / 5 Rx
No. of SDOs	1 server SDO
Communication profile	DS-301 V4.1
Device profile	DS-401 V2.0
	Programmable error response
COB ID distribution	SDO, standard
Node ID distribution	DIP switches
Other CANopen features	NMT slave
	Minimum boot-up
	Variable PDO mapping
	Emergency message
	Life guarding
Power 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 ... 16
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	135 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)

WAGO®

CANopen ECO Fieldbus Coupler MCS

10 Kbaud ... 1 Mbaud; digital and analog signals

DIP switch
for node ID
and baud rate

CANopen
STOP
RUN
TX
OVERFL
RX
I/O

01 02 03 04

Status indication
-Fieldbus
-Fieldbus note

Data contacts

Marking area

Fieldbus
connection
231 Series (MCS)

Supply
24 V
0 V

Configuration
interface

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.
The CANopen bus coupler is capable of supporting all I/O modules and automatically configures, creating a local process image.
The local process image is divided into two data zones containing the data received and the data to be sent. The process data can be sent via the CANopen fieldbus to the PLC, PC or NC for further processing, and received from the field via CANopen.

The data of the analog modules is stored in the PDOs according to the order in which the modules are connected to the buscoupler. The bits of the digital modules are sent byte by byte and also mapped in the PDOs. If the amount of digital information exceeds 8 bits, the buscoupler automatically starts with a new byte.
All entries of the object dictionary can be mapped - as the user likes - in the 5 Rx PDOs and 5 Tx PDOs.
The complete input and output process image can be transmitted using SDOs. "Spacer modules" can be set via software.

Note: EDS files required

Description	Item No.	Pack. Unit
CANopen ECO MCS	**750-347**	1

Accessories	Item No.	Pack. Unit
EDS files	Download: www.wago.com	
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	C€
Shipbuilding	ABS, DNV, GL, KR
⁴Ⓤ UL 508	
⁴Ⓤ 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	110
Transmission medium	Shielded Cu cable 3 x 0.25 mm²
Max. length of bus line	30 m ... 1000 m (depends on baud rate/ cable)
Baud rate	10 Kbaud ... 1 Mbaud
Buscoupler connection	5-pole male connector, 231 Series (MCS), female connector 231-305/ 010-000 (included)