

CANopen Programmable Fieldbus Controller MCS

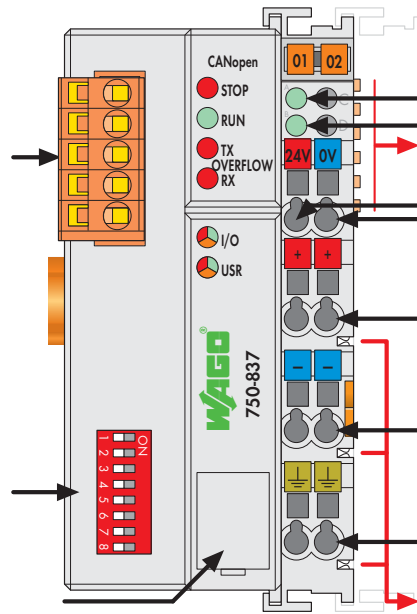
10 Kbaud ... 1 Mbaud; digital and analog signals



Fieldbus connection Series 231 (MCS)

DIP switch for node ID and baud rate

Configuration and programming interface



Status voltage supply
-System
-Power jumper contacts
Data contacts

Supply
24 V
0 V

Supply via power jumper contacts
24 V

0 V



Power jumper contacts

The programmable fieldbus controller for CANopen combines the functionality of the CANopen fieldbus coupler with the functionality of a Programmable Logic Controller (PLC).

Programming of the application is performed in accordance with IEC 61131-3. The programmer can access all fieldbus and I/O data.

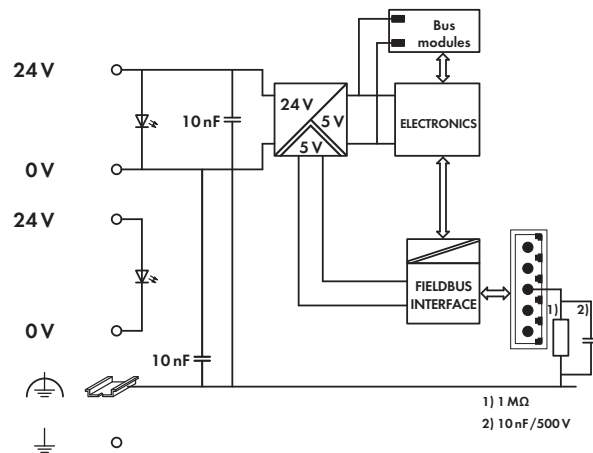
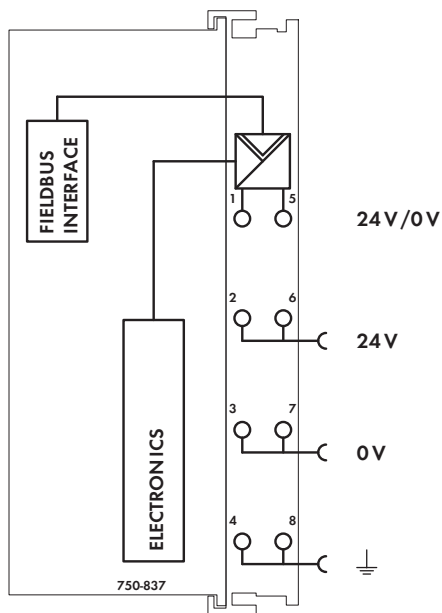
Characteristics and use:

- The use of decentralized control can better support a PLC or PC
- Complex applications can be divided into multiple tasks
- Programmable response in the event of a fieldbus failure
- Signal pre-processing reduces fieldbus transmissions
- Peripheral equipment can be controlled directly, resulting in faster system response times
- Simple, self-sufficient control

Notice: EDS files required

Description	Item no.	Pack. unit
CANopen Controller MCS	750-837	1
CANopen Controller MCS	750-837/020-000	1
Program memory 256 Kbytes; Data memory 192 Kbytes		
CANopen Controller MCS	750-837/021-000	1
Program memory 640 Kbytes; Data memory 832 Kbytes		
Accessories		
EDS files	Download: www.wago.com	
Miniature WSB quick marking system,		
plain	248-501	5
with marking	see pages 256 ... 257	
Standards and Approvals (Product variations available upon request)		
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	
Marine applications	see "Approvals Overview" in section 1	

System Data	
No. of controllers connected to Master	110
Transmission medium	Shielded Cu cable 3 x 0.25 mm ²
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, Series 231 (MCS), female connector 231-305/ 010-000 (included)
Programming	WAGO-I/O-PRO 32 (as of firmware SW 11 also programmable with WAGO-I/O-PRO CAA)
IEC 61131-3	IL, LD, FBD, ST, FC



Technical Data

Number of I/O modules	64
Fieldbus	
Max. input process image	512 bytes
Max. output process image	512 bytes
Max. input variables	512 bytes
Max. output variables	512 bytes
Configuration	automatic
Program memory	128 Kbytes
Data memory	64 Kbytes
Non-volatile memory (retain)	8 Kbytes
Cycle time	< 3 ms for 1,000 statements / 256 dig. I/Os
No. of PDOs	32 Tx / 32 Rx
No. of SDOs	2 server SDOs / 16 client SDOs
Communication profile	DS-301 V4.01
Device profile	DS-401 V 2.0
	Marginal check
	Edge-triggered PDOs
	Programmable error response
	DSP 405
	using function blocks
	NMT master can be programmed
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 / heartbeat
	Configuration of virtual modules
Voltage supply	DC 24 V (-25 % ... +30 %)
Max. input current (24 V)	500 mA
Efficiency of the power supply	87 %
Internal current consumption (5 V)	350 mA
Total current for I/O modules (5 V)	1650 mA
Isolation	500 V system/supply
Voltage via power jumper contacts	DC 24 V (-25 % ... +30 %)
Current via power jumper contacts (max.)	DC 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 50082-2 (1996)
EMC CE-Emission of interference	acc. to EN 50081-2 (1994)
EMC marine applications -	
Immunity to interference	acc. to Germanischer Lloyd (2003)
EMC marine applications -	
Emission of interference	acc. to Germanischer Lloyd (2003)