CANopen-DP/2
Gateway CANopen® to PROFIBUS-DP® Slave

Connection of CANopen Devices and Networks to PROFIBUS-DP
- PROFIBUS-DP slave acc. to IEC 61158 (240 bytes input and 240 bytes output)
- CANopen Manager
- Cycle time only limited by PROFIBUS

Extendable with CANopen Modules via InRailBus
- Cable-free connection of esd CAN-CBX-I/O modules to the gateway
- InRailBus for CAN connection and power feed

Configuration with Standard Tools
- Run-time configuration via PLC
- No special tools required
- Plug 'n' play replacement
- Diagnostics interface via USB

Linking PROFIBUS-DP and CANopen
The CANopen-DP/2 can link any PROFIBUS-DP master to a CANopen network. The gateway operates as a PROFIBUS-DP slave-I/O component

with a total of maximum 240 bytes input and 240 bytes output data. It supports cyclic (DP-V0) as well as acyclic (DP-V1) PROFIBUS data transfers.

On the CANopen side it operates as a CANopen manager supporting NMT master and configuration functions. PDO and SDO (with SDO timeout and MPDO transmission)

data transfers are supported. START frame, SYNC and Heartbeat are controlled by the module.

Applications
With the CANopen-DP/2 gateway you can couple CANopen modules e.g. to a SIMATIC-S7.
The number of CANopen devices is not limited by the module.
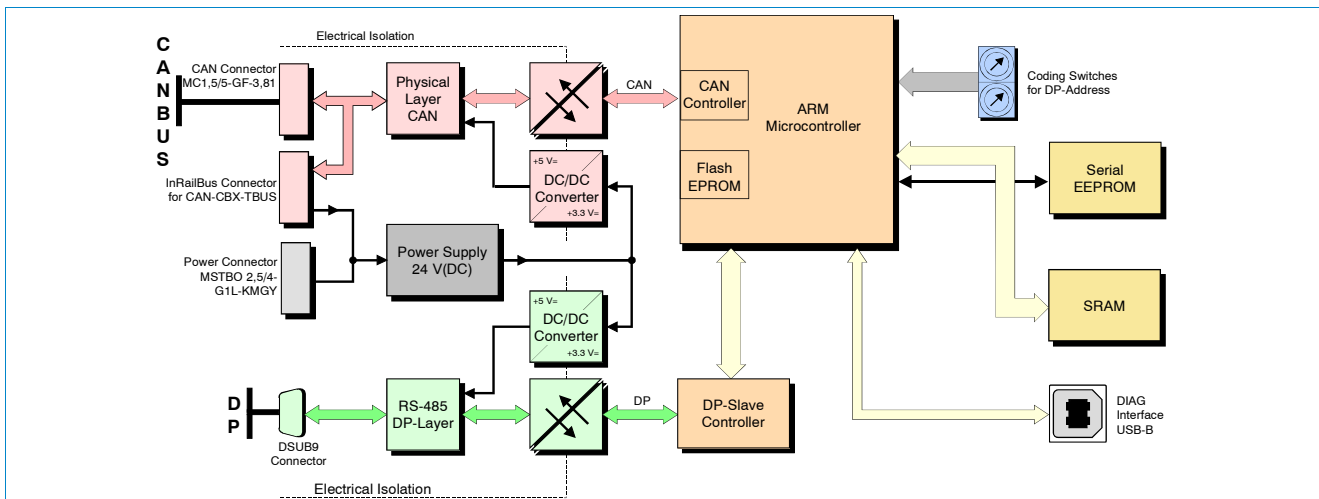
Physical Interfaces
The ISO 11898-compatible CAN interface allows a maximum data-transfer rate of 1 Mbit/s. The PROFIBUS-DP-Slave interface automatically recognizes all usual bit rates up to 12 Mbit/s.
The PROFIBUS-DP as well as the CAN interface are electrically isolated.

Configuration and CAN Protocols
The module can be configured via PROFIBUS configuration tool, e.g. the PLC SIMATIC Manager.
CANopen is supported as CAN-layer-7 protocol on the CAN layer. Additionally CAN-layer-2 functions are available.

Technical Specifications:

CPU:

Microcontroller	ARM®Cortex™-M3
Memory	SRAM: 1 MB

CAN:

CAN controller	ISO 11898-1, integrated in microcontroller
CAN interface	ISO 11898-2, electrically isolated, up to 1 Mbit/s

PROFIBUS-DP:

DP controller	VPC3, DP-Slave
DP interface	RS-485, electrically isolated, max. 12 Mbit/s

Diagnosis:

Interface	USB 2.0, full-speed, 12 Mbit/s, virtual COM-port

General :

Supply voltage	Nominal 24 VDC/ 40 mA
Ambient temp.	0 °C ... +55 °C
Relative humidity	Max. 90% (non-condensing)
Dimension	22.5 mm x 99 mm x 114.5 mm
Weigth	ca. 125 g
Connectors	CAN: 5-pin Mini-Combicon open style 3.81 or InRail Bus
	DP: 9-pin DSUB, female
	Power: 4-pin Combicon open style 5.0 or InRailBus
	DIAG: USB type B connector

Order Information:

Hardware		Order No.
CANopen-DP/2	Gateway CANopen to PROFIBUS-DP slave, physical layer ISO 11898-2, firmware with gateway function, GSD-file included	C.2909.02

esd electronic system design gmbh
Vahrenwalder Str. 207
30165 Hannover / Germany
Phone: +49 (0) 511 3 72 98-0
Fax: +49 (0) 511 3 72 98-68
E-mail: info@esd.eu