



Intelligent Controller with CAN/Ethernet Gateway CEDIO 16/16-0,5 / CEDIO-S 16/16-0,5

■ Brief description

The CEDIO 16/16-0,5 provides distributed intelligence for transparent automation solutions. Linking CAN to Ethernet, this module provides direct access to CAN field bus networks from Ethernet PCs without any additional CAN interface.

This module provides a full-fledged CAN-open master implementation as a library for IEC 1131 and 'C'.

In addition to its real-time processor technology optimized for control applications, this module features 16 digital inputs plus 16 individually configurable digital I/Os on-board.

With small space requirements the CEDIO 16/16-0,5 is ideal for distributed solutions.

- Ethernet Interface
- 2 CAN / CANopen Interfaces
- Programming in 'C' or IEC61131-3
- 16 digital Input ports
- 16 digital I/O ports for individual configuration

Designed for in-line configurations, this module simply snaps to standard rails. For local extensions, add-on modules can be mounted in line. The modular Extension Bus (E-Bus) is used for the associated connections. The control units thus set up are networked via the CANbus.

■ Selective power supply

The CEDIO 16/16-0,5 I/Os are supplied with power via signal-level connectors. The I/O can be split into six groups to be supplied separately. The I/Os of each group can be cut off selectively from the power supply via external contactors. The signal level is 24 V_{bc}.

■ Field-level connections

The signal level of the CEDIO 16/16-0,5 is factory-configured with connector strips for easy wiring. Connections are made at the front. Choose any of three connection techniques:

- screw connection
- spring latch
- crimping

The I/Os use three leads. Front-panel LEDs provide information on the I/O status and operational status of the module. The LEDs are directly mapped to the I/O ports for instant identification. Labeling strips can be inserted to identify each I/O channel.

■ CAN / Ethernet Gateway

In addition to its control functionality, the CEDIO 16/16-0,5 provides a Gateway function linking the CAN and Ethernet TCP/IP networks. For Ethernet linkage, the module is equipped with a RJ45 interface, enabling PC applications on with Ethernet network boards to directly access CAN field bus networks.

■ Memory extension

The module CEDIO-S 16/16-0,5 is equipped with double memory such as CEDIO 16/16-0,5 module. For the application data are now 2 MB Flash and RAM memory available.



■ Standard programming tools

Like all products of the Berghof CANtrol series, the CEDIO 16/16-0,5 is programmed by means of a PC running Windows XP. Depending on your specific requirements, choose IEC 1131-3 compliant SPS programming or the 'C' high-level language. We provide a wide range of tools to support you at all stages of software development.

At a glance - a brief overview

Module data			
Development environment	CPC++	CP1131	CPC++
Name	CEDIO 16/16-0,5	CEDIO 16/16-0,5-1131	CEDIO-S 16/16-0,5-1131
Item No.	2012020	2012030	201202420
Dimensions wxhxd [mm]	124 x 170 x 85.5 (modular dimension W = 113/118.5)		
Weight	approx. 700 g		
Mounting	NS 35/7.5 EN 50022 mounting rail		
Expansion	with up to 6 E bus expansion modules		
Working temperature range	5°C to 50°C (no moisture condensation) convection cooling provided		
CPU	MC 68EN360 / 33 MHz		
Programmable software	IEC 61131-3 or 'C' standard language with real-time operating system		
User memories			
Program and data memory (RAM)	960 kByte CP1131 / 640 kByte CPC++ / with memory extension 2MB CP++		
Program memory (flash)	768 kByte CP1131 / 896 kByte CPC++ / with memory extension 2MB CP++		
EMC, safety class, insulation test, degree of protection			
Noise immunity	EN 50081-2, industrial sector		
Emitted interference	EN 50082-2, industrial sector		
Safety class	III		
Insulation resistance	EN 61131-2; DC 500 V test voltage		
Degree of protection	IP 20		
Supply voltage, power consumption			
Power supply module electronics (supply voltage)	SELV DC +24 V \leq 0,4 A (EN 61131-2)		
Power supply - digital I/Os	DC +24 V (EN 61131-2) distributed into 6 groups		
Power consumption	at $U_e =$ DC +24 V running at no load max. 1 A, fuse protection according to load on I/Os, max. 6		
Power-supply reverse voltage protection	yes		
Electrical isolation	yes, between CAN bus and digital I/Os		
Digital inputs/outputs (DIO)			
Number of inputs	16		
Number of inputs/outputs	16		
Output current	0,5 A		
Short-circuit protection	yes		
Connection method	vertical three-wire front wiring with push-on terminal strips for screw, spring or crimp connection		
Operation and display			
LED's	5 status LEDs; 1 status LED per input/output		
'S' button	yes, at the front (including module reset)		
Interfaces			
Type of interfaces	CANbus, Ethernet, SIO, E bus		
Programming	via CANbus, RS 232 or Ethernet interface		
Ethernet interface			
Protocols	TCP/IP and UDP/IP		
Connector	RJ45		
Transmission rate	10 MB/s		