BERGHOF
AUTOMATIONSTECHNIK
Unternehmen der ZUNDEL Holding

Intelligent I/O Control Module CDIO 16/16-0,5

Brief description

The CDIO 16/16-0,5 provides distributed intelligence for transparent automation solutions. In addition to its real-time processor technology, this module features 16 digital inputs plus 16 individually configurable digital I/Os on-board.

With a small space requirements the CDIO 16/16-0,5 is ideal for distributed solutions. Designed for in-line configurations, this module simply snaps to standard rails. If and as required for local extensions, up to 6 add-on modules can be mounted in line with the CDIO 16/16-0,5. The modular extension bus (E-Bus) is used for the associated connections. The control units thus set up are networked via the CANbus.

The module provides a full-fledged CANCAL master/slave implementation and a CANopen master implementation as a library for IEC 1131 and 'C'.

- Programming in 'C' oder IEC 1131
- 2 CAN Interfaces
- 16 digital Input ports
- 16 digital I/O ports for individual configuration

Selective power supply

I/O power is supplied via the signal-level connectors.

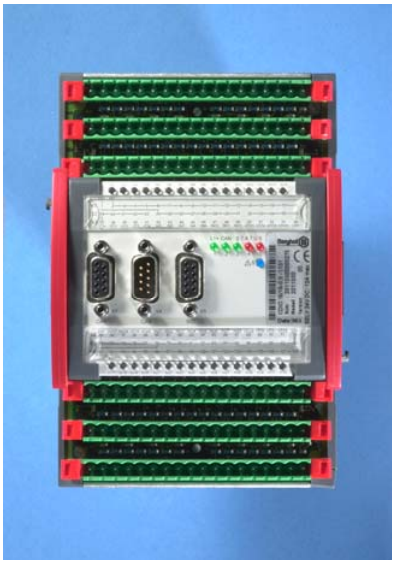
The I/O can be split into six groups to be supplied separately. The I/Os of each group can thus be cut off selectively from the power supply via external actuators. The signal level is $24V_{DC}$.

Field-level connections

The signal level 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 3 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.



Standard programming tools

Like all products of the Berghof CANtrol series, the CDIO 16/16-0,5 is programmed by means of a PC running Windows XP. You can use the programming software of your choice. Depending on your specific requirements, choose IEC 1131-3 compliant SPS programming in IL, LD, FBD or in the high-level language 'C '.

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	
	positive-switching	negative-switching	positive-switching	negative-switching
Name	CDIO 16/16-0,5	CDIO 16/16-0,5N	CDIO 16/16-0,5-1131	CDIO 16/16-0,5-1131N
Item no.	2011020	2011021	2011030	2011031
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 (e.g. QDIO, QAIO)			
Working temperature range	5° C to 50° C (non-moisture condensation) convection cooling provided			
CPU	MC 68332 / 25 MHz			
Flash EPROM / SRAM	2 MB / 1,25 MB			
Programmable software	IEC 1131-3 or 'C' standard language with real-time operating system			
EMC, class of protection, insulation testing, degree of protection				
Emitted interference	EN 50081-2, industrial sector			
Noise immunity	EN 50082-2, industrial sector			
Class of protection	III			
Insulation resistance	EN 61131-2; 500 VDC (test voltage)			
Degree of protection	IP20			
Supply voltage, power consumption				
Module electronics power supply (supply voltage)	SELV +24 V_{DC} max. 0,15 A (EN 61131-2)			
Power supply, digital I/Os	+24 VDC (EN 61131-2) subdivided into 6 groups			
Power concumption	at U_e= +24 VDC idling max. 300 mA; all I/Os activ approx. 10 A			
Electrical isolation	yes, between CAN bus and digital I/Os			
Digital inputs/outputs				
Number of inputs	16			
Number of inputs/outputs	16, individually configurables as inputs or outputs			
Short circuit or polarity reversal protection	yes in both cases, all digital outputs			
Connection method	vertical three-wire front wiring with push-on terminal strips of screw, spring or crimp connection Connector plug: 6 x 18 pole			
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	CAN bus, SIO, E-bus			
Programming	via CAN bus or RS 232			