Sontheim

IGI 16

Incremental encoder interface

We live electronics!

IGI 16

IGI16 is designed for capturing positioning data according to CiA specification for CAN networks. The device possesses the shortest conversion times and a high process reliability. That makes it the best choice for continuous operation in complex machine networks.

Key Features

- **16 incremental encorder inputs with up to 32 bit resolution**
- **CAN interface with 4-pole phoenix clamp**
- **24 V DC supply with 3-pole phoenix clamp**
- **Baud rate and module address configurable via HEX switch**
- **Complies with the CANopen specification according to CiA**

Housing

The compact aluminium housing contains a top hat rail mount and a front cover with all interfaces for better overview in the control cabinet. The technician will note the convenience while working at the bus cabling.

Incremental encoder

Overall, the IGI has 16 incremental encoder interfaces. Five of them are directly connected to counters. The sixth can be switched to D3 to D13. Inc A and B possess a resolution of 32 bit. All others work with a standard 16 bit resolution. Each encoder uses an impulse quadruplication for 20,000 impulses at 5,000 steps per turn.

LEDs and switches

All inputs can be monitored with the help of LEDs at the clamps. In addition to that, you can configure the baud rate with a HEX switch at the front cover – easy and comfortable.

Technical Data

CPU	16-bit microcontroller
CAN	interface according to ISO 11898 galv. isolated Connection with 4-pole phoenix clamp or optionally with RJ45 plug
Connecton system	D-Sub9 plug
Setting	of baud rate via HEX switch
Dimensions (l×w×h)	241 mm × 120 mm × 48 mm
Weight	800 g
Protection class	IP20, EMC-requirements according to CE
Storage temperature	–30 °C up to +70 °C
Operating temperature	0 °C up to +60 °C
Humidity	90 % non-condensing
Power supply	24 V DC ±20 %

Inputs	
Number of inputs	16× for incremental encorder
Meter size	Inc A: 32 bit Inc B: 32 bit Inc C: 16 bit Inc D1: 16 bit Inc D2: 16 bit Inc D3 up to D13: 16 bit multiplexed
Fehlermodus	with watchdog error every 60 ms transmission of an error frame
Betriebszustandsanzeige	LEDs (red) for short circuit on Inc side LEDs (green) for multiplex-input RUN-LED (green) for identifier-reception ERROR-LED (red) for watchdogerror 24 V LED (green) for supply voltage

Pin assignment

CAN

1	CAN H (high)
2	CAN L (low)
3	CAN GND
4	Erde

Incremental Encoder

1	GND
2	/B
3	GND
4	/A
5	24 V
6	24 V
7	GND
8	B
9	/A

HEX-Switch baud rate (in Kbit/s)

0	10
1	20
2	50
3	125
4	250
5	500
6	1000

Signal processing

Besides its inputs the IGI16 offers a powerful microcontroller that handles the data acquisition of sensors and the processing of any CAN data.

CAN interface

The integrated CAN interface is designed in accordance to DS 301 and 401 for a flexible use in different places and tasks in the CAN bus network. All Sontheim CAN interfaces comply to ISO 11898.

Order information

V96630200	IGI – Incremental Encoder Interface 16 channel

Mobile Automation

Industrial Automation

Diagnostics

Connectivity

We are looking forward to your enquiry!

Sontheim Industrie Elektronik GmbH

Georg-Krug-Straße 2
D-87437 Kempten
Phone: +49 (0) 831 575900-0
Fax: +49 (0) 831 575900-72
Email: info@s-i-e.de

Sontheim Electronic Systems L.P.

201 West 2nd Street
Davenport, IA 52801, USA
Phone: +1 563 888 1471
Email: info@sontheim-esys.com

www.s-i-e.de