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CAN Mounting-Rail Module UNI

Universal amplifier supported by the Federal Ministry of Economics and Technology based on a resolution by the German Bundestag.

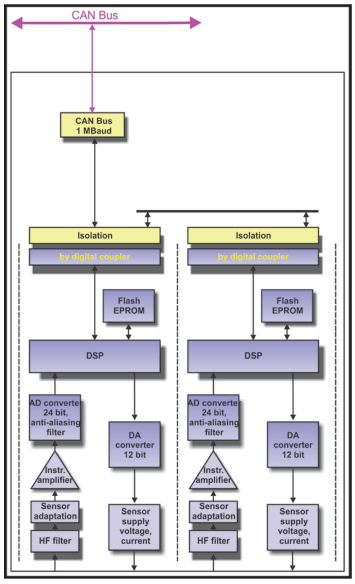
Characteristics

The SIQUAD ***CAN mounting-rail module Uni*** offers computer-controlled universal signal conditioning of various sensors. There is a 1- or 2-channel version available. It has 1 DSP per channel. Signal output is digital via CAN. Protocol is CAN 2.0B. Parameter setting is done with the software DaSoft via a USB-to-CAN interface. Signal filtering can be configured from 3..3000 Hz at 20 kS/s sample rate.

Technical Data

General	Accuracy	see sensors
	Channels/unit	2, isolated
	AD converter	24 bit / channel
	Sample rate	max. 20 kHz
	Band width	max. 5 kHz
	Digital output	CAN
	Input protection	± 100 V, ESD IEC 1000-4-2
	Supply voltage	9..36 V DC
	Sensor supply	0.5, 1.0, 2.5, 4.5 V (50 mA), 24 V (40 mA) opt. external n.i. up to 40 V (max. 250 mA)
	Environmental temperature	0..+50 °C
Strain gauge bridges	Range	0.5, 1, 2, 4, 5, 10, 25, 50 mV/V
	Accuracy	± 0.03 %
	Sensor supply	0.5, 1, 2.5, 4.5 V (> 120 Ω)
	Type of bridge 4-wire/6-wire	Full/half bridge (> 120 Ω), quarter bridge (120 Ω, 350 Ω)
Voltage	Range	0.1, 0.2, 0.5, 1, 2, 5, 10, 20, 50, 80 V
	Accuracy	± 0.05 %
	max. input voltage	80 V
	Impedance	100 kΩ (> 5 V range)
	Diff. input	yes
Signal current	Range	± 20 mA, 4..20 mA
	Accuracy	± 0.1 %
Current transmitter	Sensor supply	24 V (max. 40 mA)
Potentiometer 3-wire conn.	Range	6.25, 12.5, 25, 50, 100%
	Accuracy	± 0.1 %
	Sensor supply	2.5 V
Thermo couples J,K (others opt.)	Range	±100, ±200, -200..+500, -200..+1000 °C
	Accuracy	± 0.1 % (without CJC)
Pt100	Range	±100, ±200, -200..+500, -200..+1000 °C
	Accuracy	± 0.1 %
ICP® sensors	Range	1, 2, 5, 10 V
	min. input frequency	appr. 7 Hz
	Accuracy	± 0.1 %
	Sensor supply	4 mA, 22 V
Frequency analog	Range	5, 10, 20, 50, 100, 200, 500 Hz, 1, 2, 5, 10, 20 kHz
	Accuracy	± 0.05 %
	Input voltage	± 0.02.70 V
Frequency digital	Range	5, 10, 20, 50, 100, 200, 500 Hz, 1, 2, 5, 10, 20, 50, 100, 200, 500 kHz
	Accuracy	± 0.05 %
	Input voltage	TTL / CMOS (≥ 3.5 V)
Torque meter, Telemetry (Discriminator)	Range	Free entry of mid frequency and stroke, max. 100 kHz
	Accuracy	± 0.05 %
	Input voltage	TTL / CMOS (≥ 3.5 V)
Incremental encoder	Range	Variable, set by no. of pulses
	Accuracy	± 0.05 %
	Input voltage	TTL / CMOS
	Direction sense/sync	without, static, dynamic / with sync, without sync
PWM sensors	Range	100 Hz, 1 kHz, 10 kHz
	Accuracy	± 0.2 %
	Input voltage	TTL / CMOS (≥ 3.5 V)

Block Diagram



Dimensions

22,5 x 110 x 115 mm, (WxHxD)

Ordering Code

SCC1 - 1. - 2.

1.	**Model with screw terminals**	
	Uni2	2 Universal channels (standard)
2.	**Option measuring channels/output**	
	1AOSK	1 universal channel, 1 analog output
	1CO	only 1 universal channel via CAN

Thermocouples have to be connected via an adapter cable with integrated CJC.