

ICCS MICRO CAN

Controllers



ICCS Micro CAN is a small programmable controller with CAN communication in a compact relay design. It can be used as a stand-alone module or as an extension module to existing CAN bus systems.

Digital information and analogue voltages can be detected and processed. Alternatively overload protected high-side outputs with PWM capability or a relay output are available.

Applications

- Compact graphically programmable control unit for mobile applications
- Input extensions for CAN bus systems
- Output extensions for CAN bus systems
- Connection of digital and analogue sensors via the CAN bus

Technical data

General information	
Connector	9 pins DIN
Dimensions	30 x 30 x 40 mm
Weight	~35 g (High side), ~45 g (Relay)
Operating temperature	-40 °C to 85 °C (no full load at 85 °C)
Storage temperature	-40 °C to 85 °C
Ingress protection	IP53
EMC	E1
Operating voltage V _{supply}	9 to 30 V DC (High side version) 12 or 24 V DC (Relay version)
Pre-fusing	up to 15 A (depending on load)
Current consumption	30 mA
Processor type	Freescale HCS08 DZ60
Clock frequency	40 MHz
Flash memory	60 kB
RAM	4 kB
EEPROM	1 kB available for graphical programming

CAN bus	
acc. ISO 11898-2	High speed
acc. CAN 2.0 B	29 Bits extended address identifier
acc. CAN 2.0 A	11 Bits address identifier
Baud rate	20 kBit/s to 1000 kBit/s (125 kBit/s default value)

Inputs / outputs overview		
Qty	I/O type	Description
2	Analogue inputs	0 – 11.4 V DC 12 Bits
2	Digital outputs Relay output	High side outputs max 5 A or Changeover relay 10 A / 15 A
1	Open collector output or Analogue input	max 2 W or 0 – 11.4 V DC 12 Bit

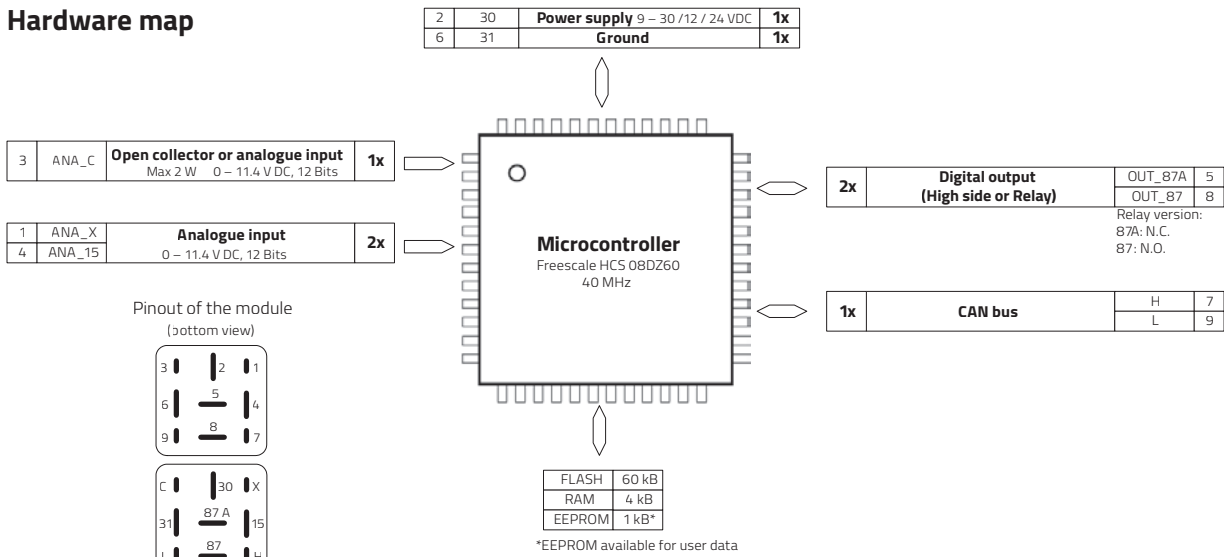
Inputs / outputs details	
Analogue inputs	
Input voltage max	V _{supply}
Measuring range	0 – 11.4 V DC
Resolution	12 Bit
Input resistance	22.6 kΩ
Input frequency	max 100 Hz
Digital outputs	
Load current high side version	max 3.5 A (2.5 A @ 80 °C) max 5 A (load only on one channel)
Load current relay version	10/15 A (O/C)
PWM outputs	
PWM frequency	max 1 kHz
Duty cycle	0 to 100 %
Resolution	0.1 %
Load current	max 3 A

Every analogue input is also usable as a digital input in the programming software

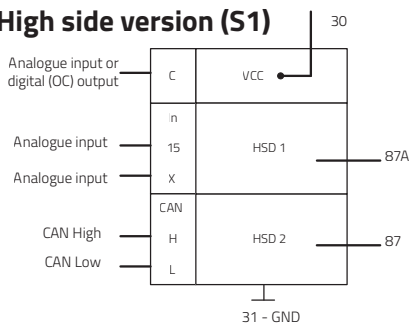
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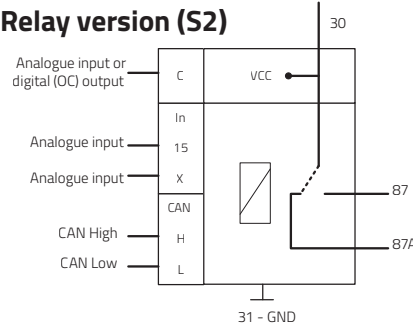
Hardware map



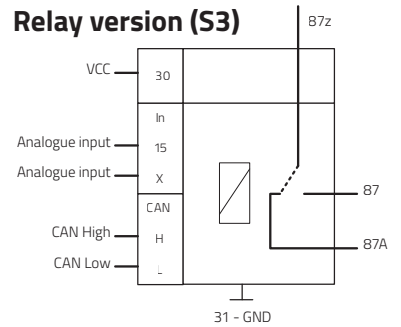
High side version (S1)



Relay version (S2)



Relay version (S3)



Pin assignment

Connector ICCS Micro CAN		
Pin	Description	Function
1	X	Analogue input 0 – 11.4 V
2	30	Vcc Main power supply 9 – 30 V / 12 V / 24 V
3	C	Analogue input 0 – 11.4 V or Open collector output
4	15	Analogue input 0 – 11.4 V
5	87 A	Digital output (High side) / Relay output N.C.
6	31	Ground
7	H	CAN bus High
8	87	Digital output (High side) / Relay output N.O.
9	L	CAN bus Low

Dimensions



Attention: The pin assignment for this module is different.
S1 (30) = S3 (87z)
S1 (C) = S3 (30)

Order information

Available references	Part number
ICCS Micro CAN S1 9-30 V 2 x HS PWM + OC	ICS-101036
ICCS Micro CAN S2 12 V + OC	ICS-100513
ICCS Micro CAN S3 12 V	ICS-98027
ICCS Micro CAN S2 24 V + OC	ICS-100478
ICCS Micro CAN S3 24 V	ICS-100869
ICCS Micro CAN S3 24 V + CAN resistor 120 Ω	ICS-100950

This item is a standard product, please consider the relevant datasheet notes. The user is responsible for the product's functionality in its purposed system environment. Technical content may be modified and changed by Würth Elektronik ICS GmbH & Co. KG without any notice.

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