imc CANSAS-DO8R, DO16R

8 or 16-channel module, respectively, with digital outputs as relays

Data Sheet Version 1.10

The CANSAS-DO8R or CANSAS DO16R module provides 8 or 16 relays, respectively, each with an opener and a closer contact. The switching state after starting is defined permanently (“ON“).

General characteristics of imc CANSAS modules

Operating conditions:
- extended temperature range, including humidity / condensation
- mechanically robust

CAN interface:
- configurable baud rate up to 1 MBit/s
- galvanically isolated

Synchronization:
- simultaneous sampling of all module's channels
- synchronizing of multiple imc CANSAS modules and with global CAN logger both via dedicated SYNC signal or based on CAN messages

Power supply and operation:
- galvanically isolated
- wide input voltage range
- supply via CAN cable possible
- automatic self start upon power-up

Onboard signal processing:
- "virtual channels"
- integrated signal processor (DSP) for online processing: data reduction, filtering, scaling, statistics etc.
- programmable multi function status LED (front panel)

Housing and Connectors:
- variety of different housings and connections

Software

Configuration:
- with imc CANSAS Software (free of charge)
- Supports the CANopen® protocol according "*CiA® DS 301 V4.0.2*" and "*CiA® DS 404V1.2*"; 4 TPDO (Transmit Process Data Objects) in INT16, INT32, and FLOAT. The supported capabilities, more standards and the settings which can be edited via CANopen® are described in the "CANSAS CANopen®" documentation.
- Capable of automatic start upon power up with preloaded configuration; also available pre-configured ex-factory.
- The module's current configuration can be extracted and exported by the software; this makes it possible to transfer configurations made by others by means of just the module.
- The "-L" and "-K" models, when installed and operated in the 19" subrack backplane, can automatically identify their slot position within the rack and pass this information on to automation software.
- The module can send a CAN-Bus message at intervals ("heartbeat“). This periodic message can serve the purpose of monitoring whether the correct module is being used with the correct configuration.

Measurement operation:

- simple measurement operation with imc CANSAS*pro*
  using CAN interface such as imc CAN-USB or any other 3rd party PC CAN interface
- Data logger operation
  Software: imc STUDIO or imc DEVICES
  Hardware: imc measurement systems with CAN interface such as imc BUSDAQ, imc CRONOS series (CRC, CRFX, CRSL, CRPL), imc C-SERIES, imc SPARTAN
- any 3.rd party CAN data logger systems

Overview of available variants

Order Code	article number	housing	signal-plug	option
CAN/DO8R	1050014	aluminum housing	DSUB	
CAN/L-DO8R-V	1050144	aluminum housing	Litton Veam	
CAN/L-DO8R-Ph	1050226	aluminum housing	Phoenix	
CAN/L-DO16R	1050057	aluminum housing	DSUB	
CAN/K-DO16R	1050093	cassette		

Housing types: imc CANSAS - classic

	CANSAS	CANSAS-L	CANSAS-K	CANSAS-SL
General				
Housing type	Alu profile	Alu profile	cassette	sealed
Size (W x H x D, mm)	W x 111 x 90	W x 111 x 145	W x 128 x 145	W x 113 x 152
Weight (typical: UNI8)	800g	800g	450 g	900 g
Stackable	●	●		●
Subrack mounting		●	●	
Subrack slot recognition		●	●	
DIN-rail mounting kit	●	●		
Versatile mounting kit	●	●		●
Operating conditions				
Extended temp. range, incl. condensation	●	●	●	●
Shock and vibration rating	50g pk (5 ms)	50g pk (5 ms)	50g pk (5 ms)	MIL STD810F
IP rating	IP40	IP40	IP20	IP65
Connectivity				
CAN connector (in / out)	2 x DSUB-9	2 x DSUB-9	2 x DSUB-9	2 x DSUB-9 or 2 x LEMO
Power input connector	PHOENIX	PHOENIX	PHOENIX	LEMO.1B
Control LED (front)	●	●	●	●

Operating conditions for Alu profile and cassette

- Operating temperature: -40°C to 85°C condensation allowed
- Shock resistance 50 g pk over 5 ms

Included accessories

- Function Test Certificate
- Instruction manual (Getting started)
- Suitable power input plug:
  PHOENIX plugable terminal block (aluminum profile housing)

Optional accessories

DSUB-15 plugs

• ACC/DSUBM-REL4	DSUB-15 plug for relay outputs	1350176

ITT Veam Connectors

• CAN/UNIST-7-3	ITT Veam plug for 1 channel, all measurement modes; cable diameter 3 mm	1050059
• CAN/UNIST-7-6	ITT Veam plug for 1 channel, all measurement modes; cable diameter 6 mm	1050060

Mounting brackets for fixed installations of CANSAS modules with Alu profile housing

• CAN/BRACKET-90	mounting bracket 90°	1050319
• CAN/BRACKET-DIN-S	mounting bracket for DIN-Rail	1050324
• CAN/BRACKET-DIN-M	mounting bracket for DIN-Rail	1050325

Report set of function test for each module

Technical Specs - DO8R, DO16R

Data Sheet Version 1.10

Parameter	Value	Remarks
Relais	8 16	DO8R DO16R
Contact-Configuration	toggle	"IN" = "ON" (logical signal 1) "IN" = "OFF" (logical signal 0)
Power-Up Default	OFF	defined state at module startup: logical 0
Relay specs		
Switching voltage	max. 125 V (AC) max. 110 V (DC)	
Switching current	max. 1 A at 30 V (DC) max. 0.3 A at 125 V (AC) min. 10 µA at 10 mV (DC)	 min. current flow required to maintain low contact resistance
Switching power	max. 30 W at 30 V (DC) max. 37.5 W at 125 V (AC)	
Switching time	<30 ms	

General	Value	Remarks
Isolation:		to CHASSIS
CAN-Bus	±60 V	nominal; testing: 300 V(10 s)
Power supply input	±60 V	nominal; testing: 300 V(10 s)
CAN-Bus	defined by ISO 11898	
CANopen® mode	"CiA® DS 301 V4.0.2" and "CiA®DS 404V1.2" supports 1 RPDO in INT16, INT32, and FLOAT	

Parameter	Value	Remarks
Supply voltage	10 V to 50 V DC	
Power consumption	4 W (typ.)	12 V supply, 23°C
Operating temperature	-40°C to 85°C	

Terminal connections	Value	Remarks
Terminal connections	2x DSUB-15 4x DSUB-15 8x ITT VEAM PHOENIX terminal block	outputs : DO8R -L-DO16R -L-DO8R-V -L-DO8R-Ph, K-DO16R
rear side	2x DSUB-9 PHOENIX (MC 1,5/4STF-3,81)	CAN (in/out) supply
Dimensions (W x H x D)	35 x 111 x 90 mm 55 x 111 x 145 mm 75 x 111 x 145 mm 81 x 128 x 145 mm 75 x 111 x 145 mm	CANSAS-DO8R CANSAS-L-DO16R CANSAS-L-DO8R-Ph CANSAS-K-DO16R (8TE) CANSAS-L-DO8R-V
Weight	300 g	