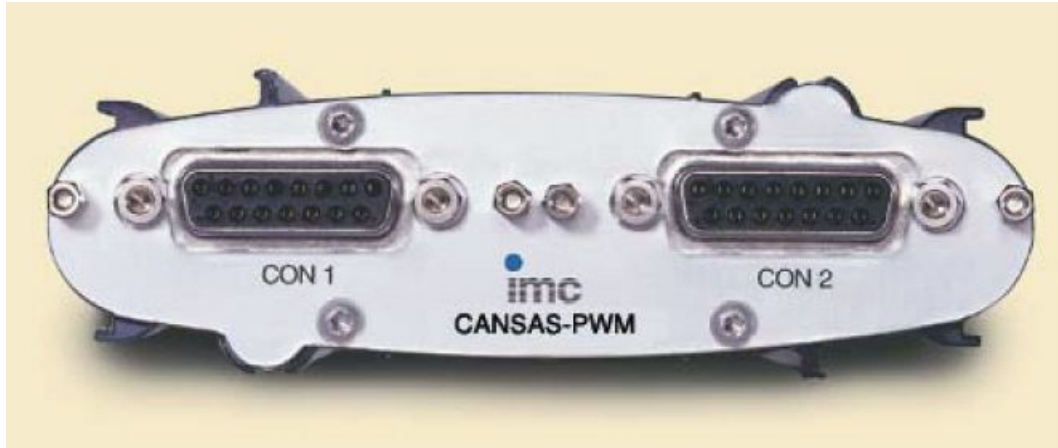


CANSAS-PWM8

Module for outputting **Pulse-Width-Modulated signals**



The output module **CANSAS-PWM8** generates pulse-width-modulated signals, either from values sent by the CAN-Bus, or from internally computed values.

Order code:	Article #
CANSAS-PWM8	1050121
CANSAS-K-PWM8	1050085
CANSAS-L-PWM8-V	1050229

3 different models available:

CANSAS-PWM8

Unventilated strand-cast aluminum housing (Short model, 2 x DSUB signal connection terminals)
35 x 111 x 90 (W x H x D in mm)
Weight typ. 300 g

CANSAS-K-PWM8

Unventilated cassette, 3U/16HP (Cassette model, 2 x signal connection terminals)
for installation in the 19"-subrack
CAN-Bus and supply are connected to the module via the 19" subrack
Weight typ. 900 g

CANSAS-L-PWM8-V

Unventilated strand-cast aluminum housing (Long model)
75 x 111 x 145 (W x H x D in mm)
Signal connection via 8 x ITT VEAM
Weight typ. 300 g

Refer also to the document "*CANSAS Installation and Assembly*" for information on the models and module racks.

Connections

- CAN-Bus connected via 2 DSUB-9 terminals; CAN IN (male), CAN OUT (female)
- Signal connection to the module: 2 x 15-pin DSUB terminal plug at model CANSAS-L-PWM8-V via 8 x ITT VEAM
- Power supply via Phoenix (MC1, 5/4STF-3,81) socket (CAN/Power-Plug) (not with Cassette model)

Power supply

- Supply voltage: 9..32 V DC via (4-pin) Phoenix plug or via CAN-Bus plug
- Automatic independent start upon application of supply voltage
- Power consumption < 4,0 W (typ.)

Operating conditions

- Operating temperature: -30°C...85°C condensation allowed
- Shock resistance 50 g pk over 5 ms

Included accessories

- Calibration certificate as per DIN EN ISO 9001
- Instruction manual
- With strand-cast aluminum housing: Connection terminal for power supply via Phoenix socket

Measurement characteristics

- 8 output channels with pulse-width-modulated signals
- For every channel, both TTL and open drain output modes are available

Special characteristics

- 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.
- The module can be set to expect a message with a certain identifier at periodic intervals and to revert to definable states if this message fails to arrive ("Guarding"). This ensures protection against an outage of the control signal emitter.
- The module's configuration can be exported by the software; this makes it possible to transfer configurations made by others by means of just the module.
- With the Long and Cassette models, the module can import slot data from the rack and pass it to automation software.

Optional accessories**Connection terminals:**

- **ACC/DSUB-PWM**, terminals for each 4-channel block

Additional options and accessories

- Depending on the model, the modules can be either attached together to form stacks or installed in racks; see the document "*CANSAS Installation and Assembly*" for more on these options.
- The connectors necessary for the signals are described in "*Signal Connection Terminals*".
- The modules can be configured for CAN-network applications either -by order- at factory, or by the customer using appropriate configuration software. The necessary software as well as cables and additional accessories are presented in the documentation "*Integrating CANSAS in CAN Networks*".

PWM8

Technical Specs (8 digital outputs)

Parameter	Value (typ. / max)	Remarks
Channels	8 (2 x 4 channels)	4-channel-group isolated to the other group as well as to supply and CAN-bus. No isolation within a group. Separate voltage supply for both 4-channel-groups.
Output configuration	Open-Drain output TTL-output	each channel has one open-drain and one TTL output.
PWM frequency	30 Hz to 10 kHz	common setting for each channel group
Time resolution of Measurement	33 ns	counter frequency 32 MHz (primary sampling rate)
Resolution	60 ns 90 ns 160 ns 290 ns 550 ns	10kHz to 500Hz 500Hz to 250Hz 250Hz to 120Hz 120Hz to 60Hz 60Hz to 30Hz
Duty cycle	0...100%	
Output level (max.)	TTL: 5 V Open-Drain: < 30 V	internal supply external supply
External usable supply	5 V/ 30 mA per plug (VCC_1_4 and VCC_5_8)	Additionally to supply of outputs
Output current	TTL (High-level): <10 mA TTL (Low- level): <10 mA Open-Drain (Low- level): <1400 mA	
Switching time	TTL: < 6/ 16 ns open-drain: < 10/ 20 µs	
CAN-Bus	defined as per ISO 11898	
Isolation:		to housing (Chassis)
CAN-Bus	±60 V	nominal; testing: 300 V (10 s)
supply	±60 V	nominal; testing: 300 V (10 s)
analog output	±60 V	nominal; testing: 300 V (10 s)
Supply voltage	9..32 V DC	
Power consumption	4 W (typ.)	@12 V, 23°C
Operating temperature	-30°C...85°C	
Connectors	2 x DSUB-15 8 x ITT VEAM 2 x DSUB-9 PHOENIX (MC 1,5/4STF-3,81)	outputs: PWM8, -K-PWM8 -L-PWM8-V CAN (in/out) supply
Dimensions (W x H x D)	35 x 111 x 90 mm 81 x 128 x 145 mm 75 x 111 x 145 mm	CANSAS-PWM8 CANSAS-K-PWM8 CANSAS-L-PWM8-V