CanCom

Mini-Multimodul
Analog/Digital/PWM-64 **V5.00**

4 A/D, 2+2 PWM

CE

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Specifikation	Specification		
Matningsspänning	Power supply	10-30	VDC
Spänningsrippel	Voltage ripple	<3	V t-t
CAN protokoll	CAN protocol	2.0B	150Kbit
CAN drivkrets	CAN driver	82C251	Philips
Antal utgångar	Number of outputs	2+2	PWM
I/O adress	I/O address	1-25	ID
Modulkontaktdon	Module connectors	Econoseal-18	AMP
Kabelkontaktdon	Cable connectors	Econoseal-18	AMP
Operativsystem	Operating system	CanCom	CanPro
CPU	CPU	98AZ60	Motorola
Flashminne	Flash memory	60	kB
Kapsling	Housing	Black Plastic	Lexan 940
Egenförbrukning	Internal consumtion	50	mA
Vikt	Mass	0.28	Kg
Mått (med kontakt)	Size (with connector)	79x72(110)x36	mm
Modulens miljöskydd	Module protection	IP67	IP67
Omgivningstemp.	Operating temp.	-30° - +50°	Celcius
PWM Utgångar	**PWM Outputs**		
Belastbarhet	Maximum load	2000	mA
Strömåterkoppling	Current fedback	100-1700	mA
Ramptid	Ramptime	0.0 - 9.9	s
Övertemp skydd.	Overtemp protected	+150	Celcius
Kortslutningsskydd	Short circuit protect	2,7	A
Återställning av skydd	Reset protection	Interupt power	>2s
Avbrottsdetektering	Open Circuit	Time	>1s
Återställning av skydd	Protection reset	Input signal to	Centervalue
Aktiveringstid	Response time	50	ms
Rippelfrekvens	shopperfrequency	30 - 200	Hz
Feldetektering	Error detection	>,< 1-254	bit
Spolresistans	Coilresistance	4-254	ohm
Analoga Ingångar	**Analog Inputs**		
Analoga ingångar	Analog input	0-5	V
Analoga ingångar	Analog input	8	bit
EMC	**EMC**		**89/336/EEC**
Emission	Emission	CISPR 25_2002	EN55081-2
Immunitet	Immunity	Industrial	EN55082-2
ISO 11452-4	Conducted (BCI)	100mA /80%	0.15-250MHz
ISO 11452-2	Radiated	50V/m 80%	250-2000MHz
EN61000-4-2	ESD	Air/Contact	8/4 KV
ISO/TR 10605	ESD	Air/Contact	14/7kV
ISO 7637-1	12V system	Pulse	4
ISO 7637-2 -3	24V system	Pulse	1a,1b,3a,3b
EN61000-4-8	Magnetic field	30A/m	50Hz

Connections C735

Contact details for C735

Lock washer
30-50089

18-pole contact
30-50090

Seal plug
30-50088

Contact element
30-50084
Cable sealing
30-50087
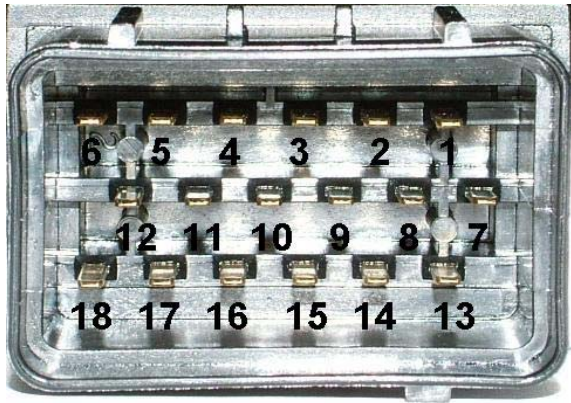
1. + Supply to the module 10-30VDC
2. PWM2A+
3. PWM2B+
4. PWM2A-
5. PWM2B-
6. + Reference, +5V (max 50mA)
7. – Supply to the module (GND)
8. PWM1A+
9. PWM1B+
10. PWM1A-
11. PWM1B-
12. - Reference (GND)
13. CANH
14. CANL
15. A/D 4 (even frequency input 0-255Hz) *
16. A/D 3 (even frequency input 0-255Hz) *
17. A/D 2 (balanced)
18. A/D 1 (balanced)

The mini-multimodule consists of one Analogue part
and one PWM-64 part.
When programming the PWM module chose PWM-64.
When programming the Analogue module chose Analogue module.
At delivery the Analogue module is programmed to ID24 and the
PWM-64 module is programmed to ID25. These IDs can be
changed with CanPro if desired.

From V43:
* To measure frequency on A/D3 and 4 the inputs 5 and 6
shall be set to Analogue in the module configuration.
The frequency from A/D 3 is sent out on
the Analogue module ID.
Port 5 shows the frequency on A/D 3,
port 6 shows the frequency on A/D4.
The signal input levels at frequency measuring is
<4V for low signal and 8-30V for high signal.
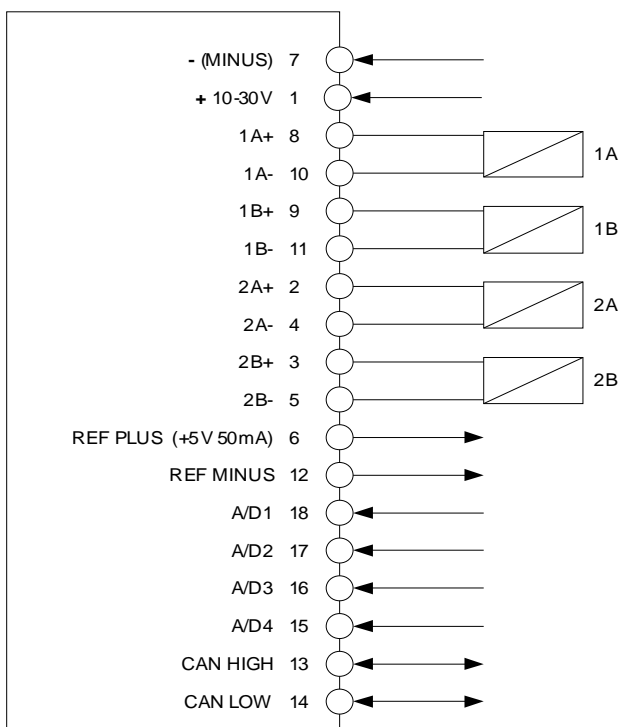
Bracket for DIN-rail or flat assembly

A/D 3 and A/D 4 can also be manouvered with an external
0-10V signal if a 33.2Kohm resistor is serial connected
with each A/D input.
Alternative 4-20mA / 0-20mA if a resistance of
250 ohm is connected between desired input and -
The CAN bus is terminated with
120 ohm inside the module

Specialflags:

3 DRIVER SELECTIONS:
The PWM module has the possibility to three driver selections controlled by the module´s internal flags 30,31,32. To make the flags work as driver choice flags, flag 30 must have the comment ABC. Otherwise the flags 30, 31 and 32 will work as ordinary flags.

If no conditions are fulfilled in any of the flags, the driver choice will automatically be set to driver A
If more than one flag have fulfilled conditions the driver choice will be set to driver A

Fulfilled conditions i flag 30 sets the driver choice to A
Fulfilled conditions i flag 31 sets the driver choice to B
Fulfilled conditions i flag 32 sets the driver choice to C

INC/DEC FUNCTION (2 pcs)
Use this function when it is desirable to get a value higher or lower with for example two push buttons or one alteration switch instead of using a joystick or potentiometer.
The default value can be selected freely (for example 127..).
This value can then be set higher, lower or immediatly
set back to 127 by using flags according to below.

The value in Analog port 7 & 8 can be controlled with flag 59-64
in the PWM-module if the port is set to "Analog in".

The flags works as follows:
Flag 59: Port 7 get higher.
Flag 60: Port 7 get lower.
Flag 61: Port 7 is set to the flags value (always have to be set, initiated by "Timer<0.5s")
Flag 62: Port 8 get higher.
Flag 63: Port 8 get lower.
Flag 64: Port 8 is set to the flags value (always have to be set, initiated by "Timer<0.5s")

The ramp time can be set with the value in the inc/dec flags with SET Constant value ("N") as last row in Flag 59,60,62,63. The value will get higher or lower with 1 each N * 25ms where N is the flag value.
For example: An increase from 127 to 255 with N=3 take 3 * 0,025 * 128 = 9,6 seconds.

PWM output 3 and 4
PWM output 3 and 4 that has no physical contact, but can be programmed as for example bus flags.

The **red LEDs** indicates if there is a signal to the solenoids from the module as in the picture above.

CAN LED indicates that the module receive CAN data from other CAN-ID that the module is expecting answer from.
RUN LED is flashing with a steady rate when the module is working normally. If the module is not having CAN contact with another necessary module, RUN will flash twice and the outputs are automatically shut down.

Port simulator:
8 flags can be sent to the CAN-bus for analysis, or to be used as global conditions.

To activate the function the PWM-64 module must have the comment ¤SIM,mm,ff
mm is the simulated CAN-bus ID and ff the start flag and 7 subsequent flags.
Always state two numbers for ID and Flag, e.g. ID1 Flag 5 is written ¤SIM,01,05
In the example below: ¤SIM,20,28 flag 28-35 will be sent to ID20 as port 1-8.

To be able to use the ports as conditions, a module need to be entered in the module
configuration, in this case ID20. Set chosen ports as inputs and add port comments if desired.

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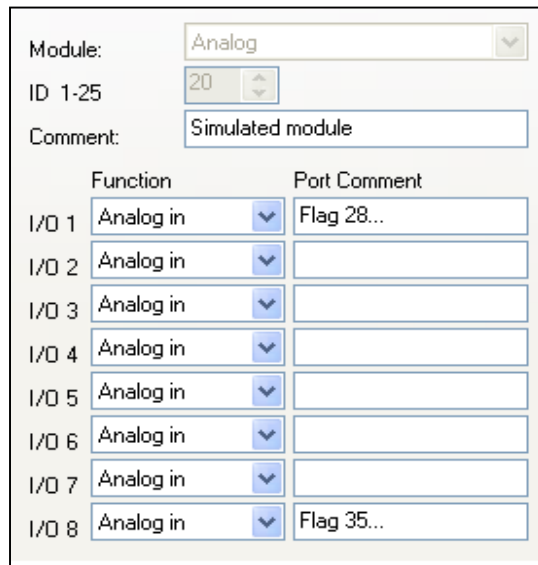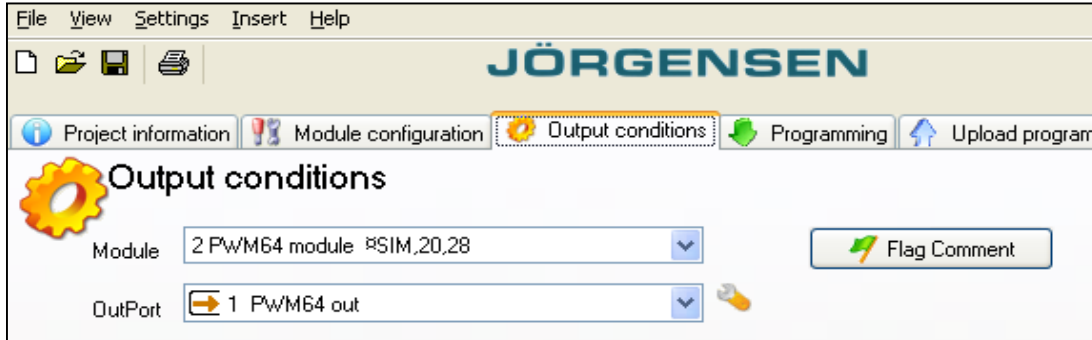
Declaration of Conformity according to the EMC directive 2004/108/EG

Försäkran om överensstämmelse enligt EMC direktivet 2004/108/EG

By signing this document the undersigned declares as manufacture that the equipment in question complies with the protection requirements of directive(s)

Genom att underteckna detta dokument försäkrar undertecknad såsom tillverkare att angiven utrustning uppfyller skyddskraven i rubricerade direktiv

CanCom Mini Multi module	

2004-104-EC AnnexVII	**BB Radiated RF emission**
2004-104-EC AnnexVIII	**NB Radiated RF emission**
EN 61000-6-2	**Industrial immunity**
ISO 11452-2 (95/54/EG)	**Conducted RF immunity**
ISO 11452-4 (95/54/EG)	**Radiated RF immunity**
ISO 7637-1 puls 4	**Conducted transients on power lines**
ISO 7637-2 puls 1-5	**Conducted transients on power lines**
ISO 7637-3 puls 3a, 3b	**Conducted transients on signal lines**
ISO 10605	**ESD (4kV contact, 8kV Air)**
EN 61000-4-8	**Magnetic field (50Hz 30A/m)**

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Jörgensen Industrielektronik AB
Järnvägsgatan 1   535 30 Kvänum Sweden
Phone +46 512 92229 Fax +46 512 92115
www.jorgensen-elektronik.se

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Morten Jörgensen