CanCom Digital/Analogue

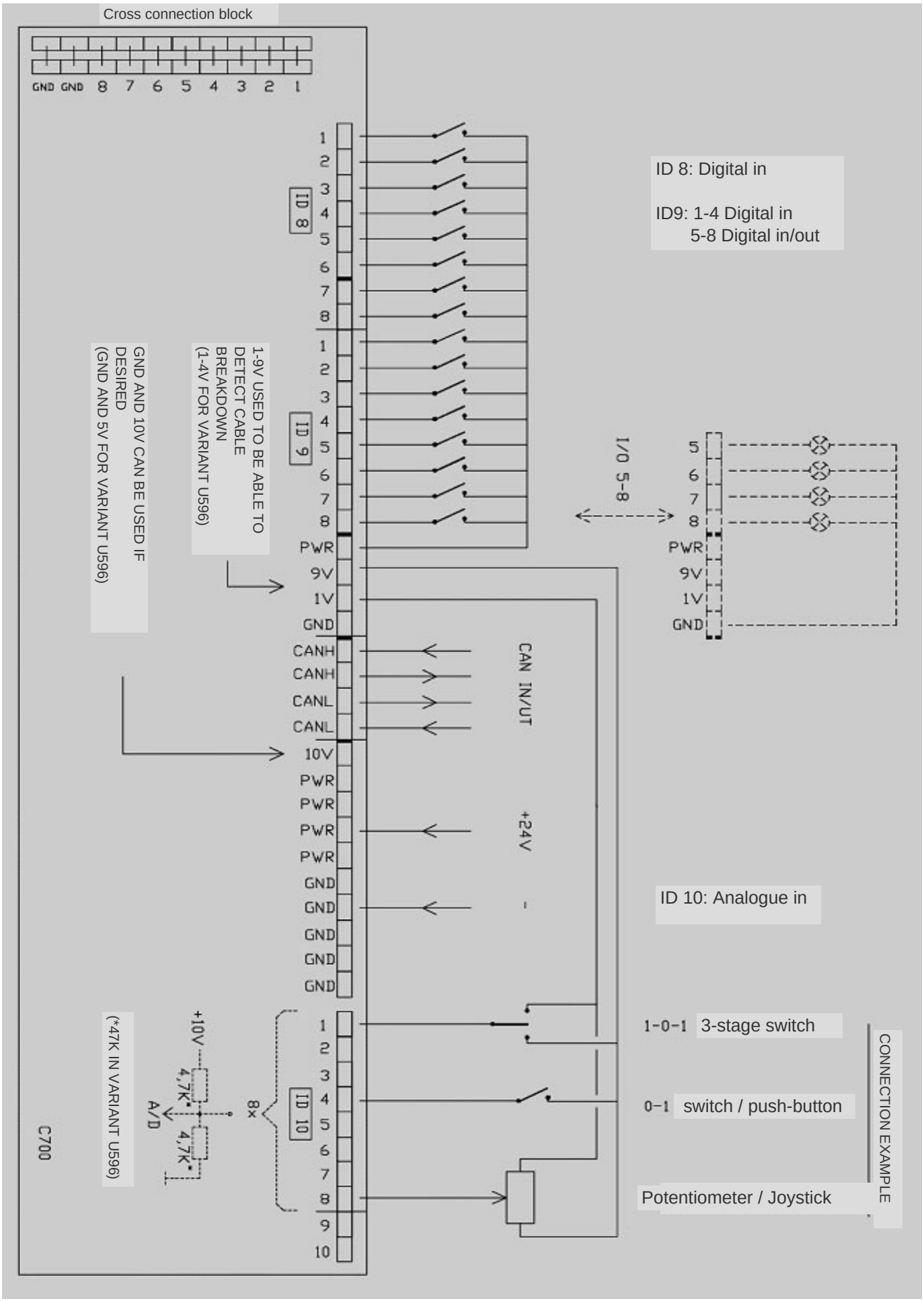
JÖRGENSEN

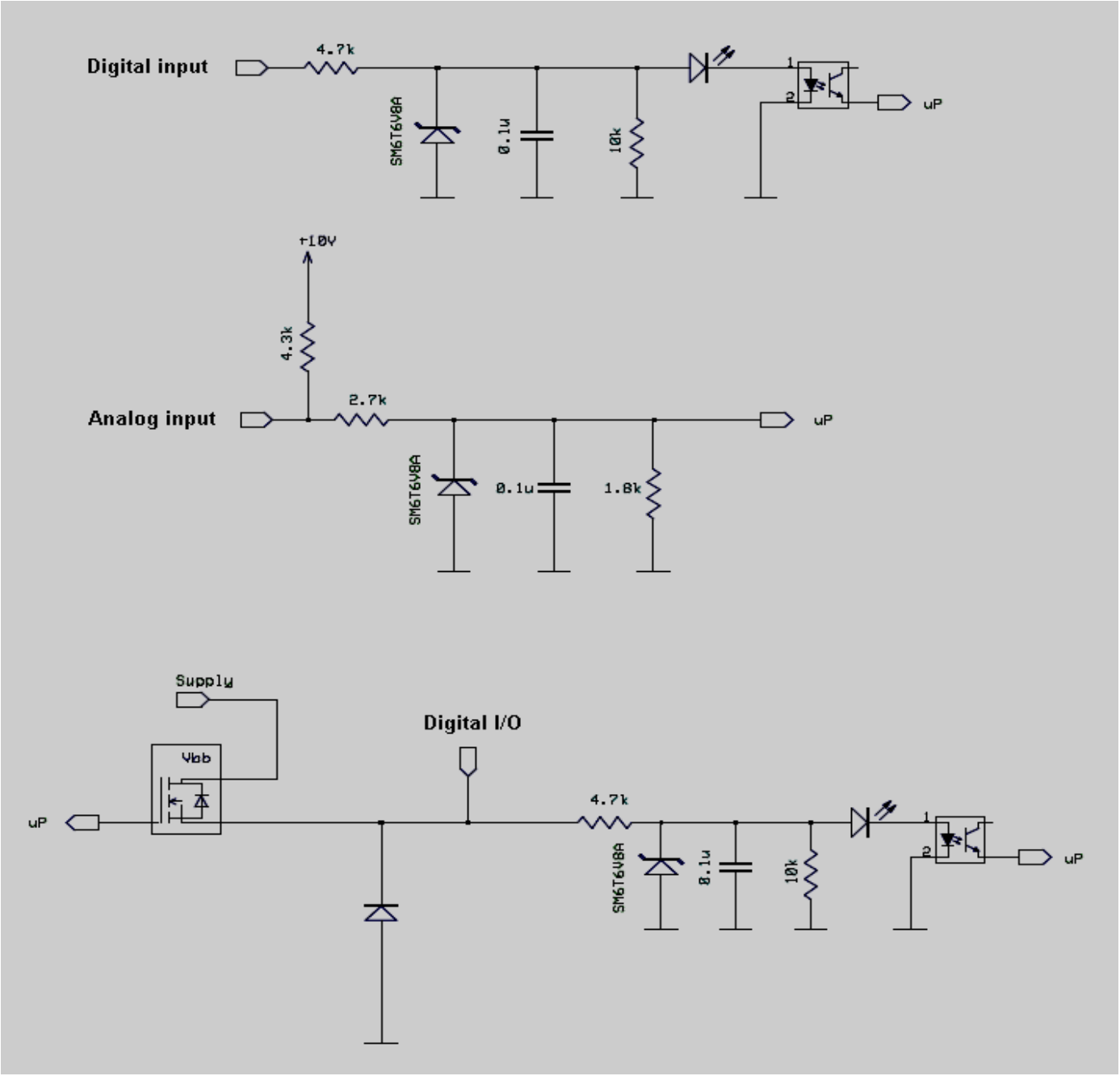
Multimodule C700 v7 CE Issue 2

Specifikation			
Power supply		14-30 (10-30V*)	VDC
Voltage ripple		<3	V t-t
CAN protocol		2.0B	150Kbit
CAN driver		82C251	Philips
Digital I/O		4	0/1
Digital inputs		12	0/1
Analogue inputs		8	8 bit 0-10V*
Connectors	for plug-in 6,8,10	screw term.	3.81mm pitch
Can ID		8,9,10	Fixed CAN ID
Operating system		CanCom	CanPro
CPU		98AZ60	Motorola
Flash memory		60	kB
Housing		Black mould	Plastic
Internal consumtion		60	mA
Mass		0,3	Kg
Dimension	LxWxH	320x60x15	mm
Operating temp.		-40 - +70	Celcius
Output			
Maximum load	PNP	1	A / output
Overtemp protected	(internal in chip)	150	Celcius
Short circuit protect		2,7	A / output
Reset protection	(for PNP output stage)	Interupt power	>2s
I/O response time	Analogue/digital	<25	ms
Inputs			
Inputs	opto coupler	Isolated	Opto
Input activated "1"	LED indicator	> 5.5V	VDC
Frequency counter	(only on lowes dig.ID)	0-255 (0-999)**	Hz
Input resistance	Digital Input	4,7	Kohm
Input resistance	Analogue input	4,7 (47*)	Kohm
Bus update time	Analogue Input	25	ms
Bus update time	Digital I/O	50	ms
EMC			
Emission	95/54EC:1995	Annex 7 and 8	
Immunity	ISO 11452-5	10KHz-200MHz	150V/m
Immunity	ISO 11452-2	200MHz-1GHz	150V/m
Immunity	ISO 11452-2	1GHz-4.2GHz	125V/m
Immunity	ISO 11452-2	4,2GHz-18GHz	50V/m
ESD	EN 61000-4-2: 1995	Air/Contact	8/4 KV
24V system	ISO 7637-2	Pulse	1,2,3a,3b,4,5
12V system	ISO 7637-3	Pulse	3a, 3b

* Power supply 10-30V, Analogue inputs 0-5V for type U596

** Only applicable for lowest ID, port 4 (info on page 4)


Cross connection block
GND GND 8 7 6 5 4 3 2 1
ID 8
ID 9
ID 10
1-9V USED TO BE ABLE TO DETECT CABLE BREAKDOWN (1-4V FOR VARIANT U596)
GND AND 10V CAN BE USED IF DESIRED (GND AND 5V FOR VARIANT U596)
PWR
9V
1V
GND
CANH
CANH
CANL
CANL
10V
PWR
PWR
PWR
PWR
GND
GND
GND
GND
GND
CAN IN/UT
+24V
-
I/O 5-8
ID 8: Digital in
ID9: 1-4 Digital in
5-8 Digital in/out
ID 10: Analogue in
1-0-1 3-stage switch
0-1 switch / push-button
Potentiometer / Joystick
CONNECTION EXAMPLE
+10V
4,7K*
A/D
4,7K*
8x
(*47K IN VARIANT U596)
C700



Special function on first digital ID:

The inputs on the first ID has a frequency counter function.

There is a invidual lowering function for the eight counter inputs.
The function is activated with ¤FDIV,x,t in the port comment for the lowest ID.
The Frequency is divided by x and integrated with the time t.

x and t is set to an integer between 0-255.
x is the divisor for the frequency 1-255 (0 is not a valid value).
t is the integration time 0-255 which corresponds to 0-25,5 seconds.
The integration time means that "the average calculation" differs in time depending on the difference in frequency between two different measurements.
Integration happens continuously with 100ms (10Hz).

If you choose analog out in the analogue ID, the output can be used as a bus flag.
(Condition is executed in the analogue ID.)

From version 5 it is also a rescaling function for frequency on port 4 available. The function is activated with a setup string in the port comment for port 4 with the formula ¤x1,x2,y1,y2 where x is input (0-999 Hz) and y is output (0-255). The values must be written with 3 digits.

Example 1:
An input with frequency between 220 and 680Hz is to be rescaled to a value between 127 and 1.
Write "¤220,680,127,001" in the comment box.

Example 1:
An input with frequency between 220 and 680Hz is to be rescaled to a value between 240 and 180.
Write "¤220,680,240,180" in the comment box.

RUN och COM indication

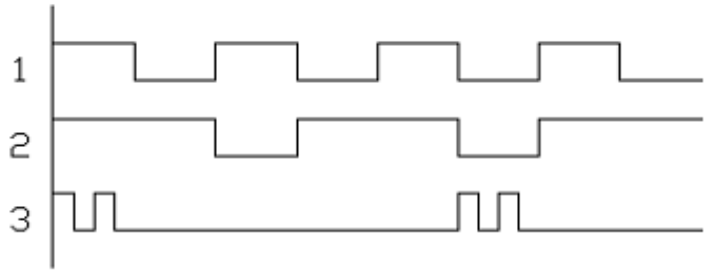
COM
- COM LED flashes if expected data is received from the CAN-bus.

RUN
- RUN LED shines with a steady light when the operating system is loaded, but no ID are programmed.
- RUN LED flashes when current CPU is programmed (COM LED flashes also).
- RUN LED do not shine when programming is in progress, but not in current CPU (COM flashes also).

1. When all ID are programmed and everything is OK, RUN LED flahes with period time 0.4s lit and 0.4s off. See figure curve 1.

2. If some ID (but not all i the CPU) are programmed and OK, RUN LED flashes with period time 1.2s lit and 0.4s off. See figure curve 2.

3. If any ID requests input from the CAN-bus is missing (timeout) the outputs are shut down and RUN LED flashes with a period time of 2s, 0.1s lit, 0.1s off, 0.1s lit, 1.7s off. See figure curve 3.



Indication of in- and outputs
These LEDs are lit when the I/O is activated.

Indication for LD21
This LED indicates that there is 5 volt. If this LED is off the board is overloaded.

Lowest ID
DI 1
DI 2
DI 3
DI 4
DI 5
DI 6
DI 7
DI 8

Middle ID
DI 1
DI 2
DI 3
DI 4
I/O 5
I/O 6
I/O 7
I/O 8

Power (LD21)
(5V on PCB)

RUN

COM

Highest ID
AD 1
AD 2
AD 3
AD 4
AD 5
AD 6
AD 7
AD 8
NC
NC

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 Multimodule C700

95/54EC:1995	**Radiated RF emission**
95/54EC:1995	**Radiated RF immunity**
ISO-11452-5	**Radiated RF immunity**
ISO 11452-2	**RF immunity Stripline**
ISO 7637-2 puls 1,2,3a,3b,4,5	**Conducted transients on power lines**
ISO 7637-3 puls 3a, 3b	**Conducted transients on signal lines**
EN 61000-4-2	**ESD (4kV contact, 8kV Air)**

CE

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