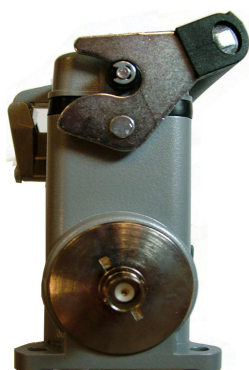




Performance level: b  
IP65



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 I/O	Number of I/O	56	I/O
I/O adress (låst)	I/O address (fixed)	13-21 alt 4-12	CAN-ID
Modulkontaktidon	Module connectors	G4A5M	Hirschmann
Kabelkontaktidon	Cable connectors	G4W1F	Hirschmann
I/O kontaktidon	I/O connectors	DIN EN 175 301-801	
Operativsystem	Operating system	CanCom	CanPro
CPU	CPU	MC9s12DG256	Freescale
Flashminne	Flash memory	256	kB
Kapsling	Housing	Grey	Aluminium
Egenförbrukning	Internal consumption	80	mA
Vikt	Mass	1130	g
Omgivningstemp.	Operating temp.	-30 - +50	Celcius
Omgivningstemp.Radio	Operating temp.Radio	-10 - +50	Celcius
Antenn kontakt	Antenna connector	BNC	
Mått (HxLxB)	Size (HxLxW)	110x144x58	mm
Utgångar		Output	
Antal utgångar	Number of outputs	24	Digital
Belastbarhet	Maximum load	4000	mA / IO*
Övertemp skydd.	Overtemp protected	+150	Celcius
Kortslutningskydd	Short circuit protect	6	A
Återställning av skydd	Reset protection	Interupt power	Automatic
Aktiveringstid	I/O response time	20-80	ms
* Max 20A totally for the module			
Ingångar		Inputs	
Antal ingångar	Number of inputs	24+8	Digital+Analog
Ingångs resistans (DI)	Input resistance (DI)	6,6	kohm
Ingångs resistans (AI)	Input resistance (AI)	28	kohm
ingång aktiv "0"	Input activated "0"	<3	VDC
Ingång aktiv "1"	Input activated "1"	>6	VDC
Buss uppdateringstid	Bus update time	5-50	ms
Tid mellan inläsningar	Input capture	20-80	ms
Frekvensingång	Frequency counter	0-255	Hz
<b>EMC: 72/245/EEC, 2009/19/EC, (2004/104/EC, 2005/83/EC, 2006/96/EC)</b>			
Emission CISPR 25	Emission CISPR 25	30-1000MHz	Broad, Narrow
Immunitet:	Immunity:	2004 / 104 / EC	
ISO 11452-4	Conducted immunity	100mA /80%	20-100MHz
ISO 11452-2	Radiated	50V/m 80%	100-2000MHz
ISO 10605	ESD	Air/Contact/ind.	8/4 KV
ISO 11452-2	Radiated immunity PM	100V/m	800-2000MHz
ISO 7637-2	24V system	Pulse	1,2a,2b,3a,3b,4

## **CanCom®** Multimodul 64 V23

The module is moulded in a stable aluminium housing. The result is a hermitically sealed module that is resistant against the hard stresses in mobile environment that includes moisture and vibrations.

The module is programmed with **CanPro** V4.31 or later.

- CAN bus connection for programming and connection to other **CanCom®** products.
- 8 Analogue inputs 0-5V  
+5V supply (pin D1) (max 20mA)  
– connection in pin C1  
Note: Do not connect the reference output to an external voltage!
- 24 digital inputs of which 8 can be used for measuring frequency 0-255Hz.
- 24 digital outputs of which 2 can be used as one H-bridge.
- For article no. 80-56000 and 80-56001:  
Built-in radio receiver, radio frequency 433,92 or 418 MHz  
Radio manoeuvring from e. g. HT-12 hand transmitter or with **CanCom®** 721 card and Bluetooth via external receiver.  
BNC antenna connection.

Overview of functions for different article numbers:

Article no.	Radio	ID 1-7	ID 4-10	ID 4-12	ID 8-14	ID 13-19	ID 13-21	ID 15-21
80-56000	x						x	
80-56001	x			x				
80-56050			x					
80-56051						x		
80-56055		x						
80-56056					x			
80-56057								x

# IN / OUT puts on **CanCom®** Multimodule ID 1-7

Article no: 80-56055

## Module ID1 – Digital IN:

Port:	Module pin:
1	C11 (Frequency counter)
2	C12 (-“-)
3	C13 (-“-)
4	C14 (-“-)
5	D11 (-“-)
6	D12 (-“-)
7	D13 (-“-)
8	D14 (-“-)

## Module ID 2 – Digital IN:

Port:	Module pin:
1	A3
2	C2
3	C3
4	C4
5	C9
6	C10
7	C15
8	C16

## Module ID 3 – Digital IN:

Port:	Module pin:
1	B3
2	D2
3	D3
4	D4
5	D9
6	D10
7	D15
8	D16

## Module ID 4 – Analogue IN:

Port:	Module pin:
1	C5
2	C6
3	C7
4	C8
5	D5
6	D6
7	D7
8	D8

## Module ID 5 – Digital OUT:

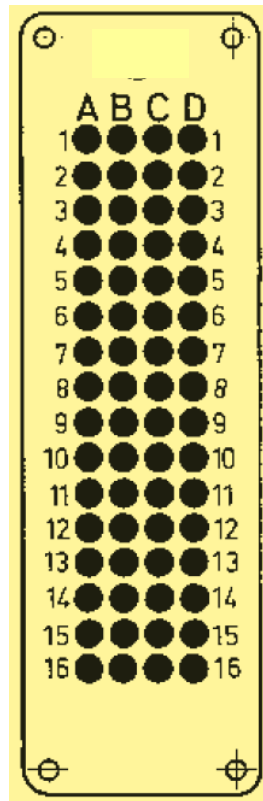
Port:	Module pin:
1	A9
2	A10
3	A11
4	A12
5	A13
6	A14
7	A15
8	A16

## Module ID 6 – Digital OUT:

Port:	Module pin:
1	B9
2	B10
3	B11
4	B12
5	B13
6	B14
7	B15
8	B16

## Module ID 7 – Digital OUT:

Port:	Module pin:
1	A5 (H-bridge)
2	B5 (-“-)
3	A6
4	B6
5	A7
6	B7
7	A8
8	B8



## Supply and GND:

Supply analogue input (5V)	D1 (max 20mA)
GND (-)	C1
Power supply +10-30V	A1,B1
GND (-)	A2,B2

## CAN:

CAN High	A4
CAN Low	B4

# IN / OUT puts on **CanCom®** Multimodule ID 4-10/12

Article no: 80-56050 and 80-56001

## Module ID 4 – Digital IN:

Port:	Module pin:
1	C11 (Frequency counter)
2	C12 (-“-)
3	C13 (-“-)
4	C14 (-“-)
5	D11 (-“-)
6	D12 (-“-)
7	D13 (-“-)
8	D14 (-“-)

## Module ID 5 – Digital IN:

Port:	Module pin:
1	A3
2	C2
3	C3
4	C4
5	C9
6	C10
7	C15
8	C16

## Module ID 6 – Digital IN:

Port:	Module pin:
1	B3
2	D2
3	D3
4	D4
5	D9
6	D10
7	D15
8	D16

## Module ID 7 – Analogue IN:

Port:	Module pin:
1	C5
2	C6
3	C7
4	C8
5	D5
6	D6
7	D7
8	D8

## Module ID 8 – Digital OUT:

Port:	Module pin:
1	A9
2	A10
3	A11
4	A12
5	A13
6	A14
7	A15
8	A16

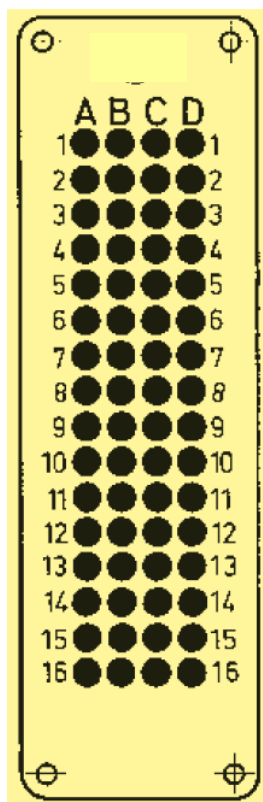
## Module ID 9 – Digital OUT:

Port:	Module pin:
1	B9
2	B10
3	B11
4	B12
5	B13
6	B14
7	B15
8	B16

## Module ID 10 – Digital OUT:

Port:	Module pin:
1	A5 (H-bridge)
2	B5 (-“-)
3	A6
4	B6
5	A7
6	B7
7	A8
8	B8

## Module ID 11, 12 – Radio (Only for articelnr: 80-56001)



## Supply and GND:

Supply analogue input (5V)	D1 (max 20mA)
GND (-)	C1
Power supply +10-30V	A1,B1
GND (-)	A2,B2

## CAN:

CAN High	A4
CAN Low	B4

# IN / OUT puts on **CanCom®** Multimodule ID 8-14

Article no: 80-56056

## Module ID 8 – Digital IN:

Port:	Module pin:
1	C11 (Frequency counter)
2	C12 (-“-)
3	C13 (-“-)
4	C14 (-“-)
5	D11 (-“-)
6	D12 (-“-)
7	D13 (-“-)
8	D14 (-“-)

## Module ID 9 – Digital IN:

Port:	Module pin:
1	A3
2	C2
3	C3
4	C4
5	C9
6	C10
7	C15
8	C16

## Module ID 10 – Digital IN:

Port:	Module pin:
1	B3
2	D2
3	D3
4	D4
5	D9
6	D10
7	D15
8	D16

## Module ID 11 – Analogue IN:

Port:	Module pin:
1	C5
2	C6
3	C7
4	C8
5	D5
6	D6
7	D7
8	D8

## Module ID 12 – Digital OUT:

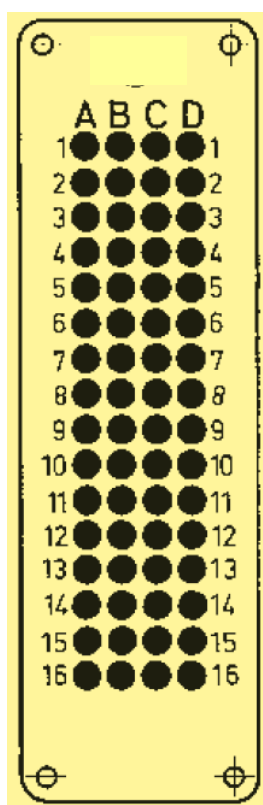
Port:	Module pin:
1	A9
2	A10
3	A11
4	A12
5	A13
6	A14
7	A15
8	A16

## Module ID 13 – Digital OUT:

Port:	Module pin:
1	B9
2	B10
3	B11
4	B12
5	B13
6	B14
7	B15
8	B16

## Module ID 14 – Digital OUT:

Port:	Module pin:
1	A5 (H-bridge)
2	B5 (-“-)
3	A6
4	B6
5	A7
6	B7
7	A8
8	B8



## Supply and GND:

Supply analogue input (5V)	D1 (max 20mA)
GND (-)	C1
Power supply +10-30V	A1,B1
GND (-)	A2,B2

## CAN:

CAN High	A4
CAN Low	B4

# IN / OUT puts on **CanCom®** Multimodule ID 13-19/21

Article no: 80-56000 and 80-56051

## Module ID 13 – Digital IN:

Port:	Module pin:
1	C11 (Frequency counter)
2	C12 (-“-)
3	C13 (-“-)
4	C14 (-“-)
5	D11 (-“-)
6	D12 (-“-)
7	D13 (-“-)
8	D14 (-“-)

## Module ID 14 – Digital IN:

Port:	Module pin:
1	A3
2	C2
3	C3
4	C4
5	C9
6	C10
7	C15
8	C16

## Module ID 15 – Digital IN:

Port:	Module pin:
1	B3
2	D2
3	D3
4	D4
5	D9
6	D10
7	D15
8	D16

## Module ID 16 – Analogue IN:

Port:	Module pin:
1	C5
2	C6
3	C7
4	C8
5	D5
6	D6
7	D7
8	D8

## Module ID 17 – Digital OUT:

Port:	Module pin:
1	A9
2	A10
3	A11
4	A12
5	A13
6	A14
7	A15
8	A16

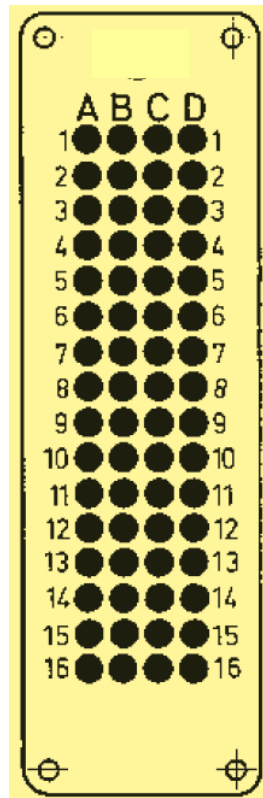
## Module ID 18 – Digital OUT:

Port:	Module pin:
1	B9
2	B10
3	B11
4	B12
5	B13
6	B14
7	B15
8	B16

## Module ID 19 – Digital OUT:

Port:	Module pin:
1	A5 (H-bridge)
2	B5 (-“-)
3	A6
4	B6
5	A7
6	B7
7	A8
8	B8

## Module ID 20, 21 – Radio (Only for articelnr: 80-56000)



## Supply and GND:

Supply analogue input (5V)	D1 (max 20mA)
GND (-)	C1
Power supply +10-30V	A1,B1
GND (-)	A2,B2

## CAN:

CAN High	A4
CAN Low	B4

# IN / OUT puts on **CanCom®** Multimodule ID 15-21

Article no: 80-56057

## Module ID 15 – Digital IN:

Port:	Module pin:
1	C11 (Frequency counter)
2	C12 (-“-)
3	C13 (-“-)
4	C14 (-“-)
5	D11 (-“-)
6	D12 (-“-)
7	D13 (-“-)
8	D14 (-“-)

## Module ID 16 – Digital IN:

Port:	Module pin:
1	A3
2	C2
3	C3
4	C4
5	C9
6	C10
7	C15
8	C16

## Module ID 17 – Digital IN:

Port:	Module pin:
1	B3
2	D2
3	D3
4	D4
5	D9
6	D10
7	D15
8	D16

## Module ID 18 – Analogue IN:

Port:	Module pin:
1	C5
2	C6
3	C7
4	C8
5	D5
6	D6
7	D7
8	D8

## Module ID 19 – Digital OUT:

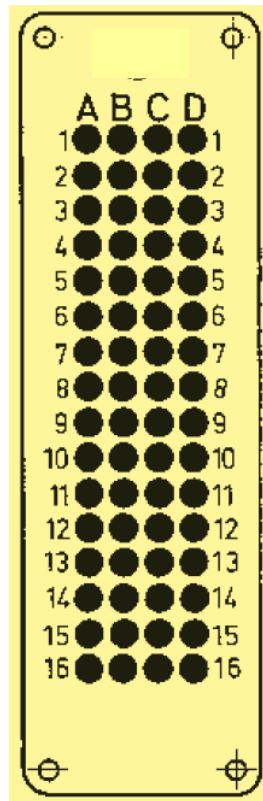
Port:	Module pin:
1	A9
2	A10
3	A11
4	A12
5	A13
6	A14
7	A15
8	A16

## Module ID 20 – Digital OUT:

Port:	Module pin:
1	B9
2	B10
3	B11
4	B12
5	B13
6	B14
7	B15
8	B16

## Module ID 21 – Digital OUT:

Port:	Module pin:
1	A5 (H-bridge)
2	B5 (-“-)
3	A6
4	B6
5	A7
6	B7
7	A8
8	B8



## Supply and GND:

Supply analogue input (5V)	D1 (max 20mA)
GND (-)	C1
Power supply +10-30V	A1,B1
GND (-)	A2,B2

## CAN:

CAN High	A4
CAN Low	B4

### Analogue inputs

Analogue inputs 0-5V x 8bit

When connecting a 120 kΩ resistor in series with the analogue input you will have 0-255 bits at 0-26V.

### Digital inputs

Digital inputs 6-30V

### Radio

The radio is programmed with the following id:

Article no: 80-56000 - ID 20 and 21 ( in the ID-box in CanPro).

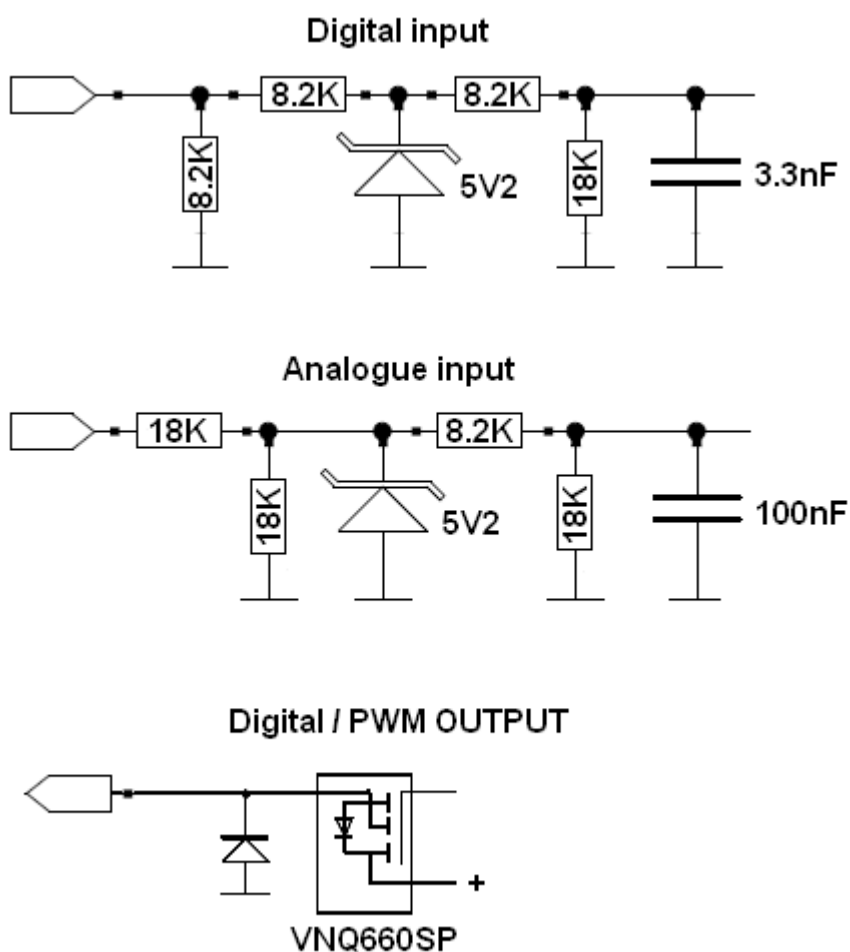
Article no: 80-56001 - ID 11 och 12 ( in the ID-box in CanPro).

NOTE: If the radio is used, then the radio id must be used in any condition for the module.

Otherwise it can be strange values in the analyse in CanPro.

Data to the Multi module from the CAN connector with the above ID

has priority before data that comes from the radio input.



Power supply and CAN signals are connected to the 4-pole Hirschmann connector

- 1 CAN HI
- 2 CAN LOW
- 3 + 10-30VDC (+ Can also be connected to the 64 pole connector)
- 4 - (- Can also be connected to the 64 pole connector)



General information about the module

- All digital ID has 64 internal flags each.
- Load, Max 4A / output, but not over 20A totally for the whole module.
- The outputs are protected against overload and short circuit.
- If an output may be subjected to an externally applied voltage, e.g. by an external push button, connect a diode that prevents current from flowing into the output.
- Fuse max 20A.
- Make sure that the module is mounted in such a way, that water can not get into the connector.

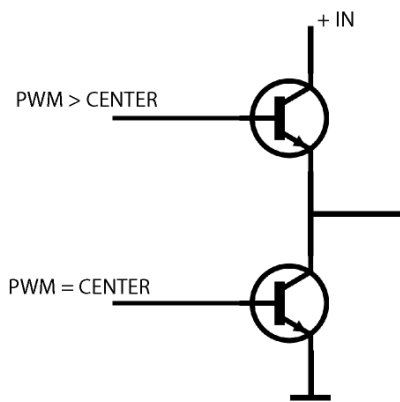
**+ 10-30V in pin A1 and B1 in the 64 pole contact.**

**- in pin A2 and B2 in the 64 pole contact.**

(The modules housing is galvanic insulated.)

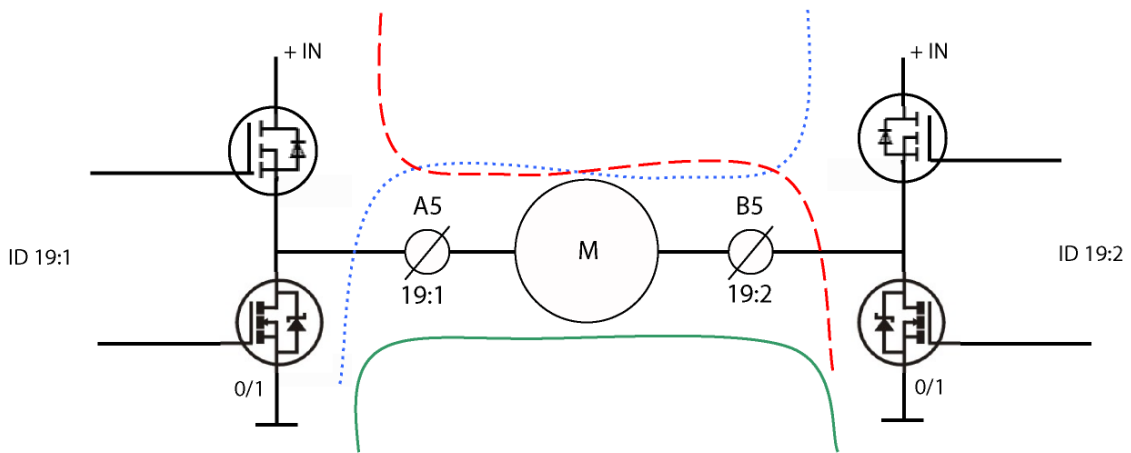
Push-Pull outputs

Push-Pull output means that you either give or lowers the voltage.



H-bridge

A5, B5 Pins connected to the H-bridge is connected to ground (GND) when the output is off. An DC-motor can then be connected between those pins in order to run in different directions depending on which output is on (19:1 or 19:2).



.....	19:1 = 0, 19:2 = 1
-----	19:1 = 1, 19:2 = 0
————	19:1 = 0, 19:2 = 0

## SPECIAL FEATURES

### Function SIM (simulate module)

For article number 80-560xx

The function SIM can be used to send out eight flags from each digital ID on the bus with optional ID. There can be a maximum of 6 simulated ID, one per ID. To active the SIM function use CanPro. This function is only available in CanPro 4.28 or later.

Example:

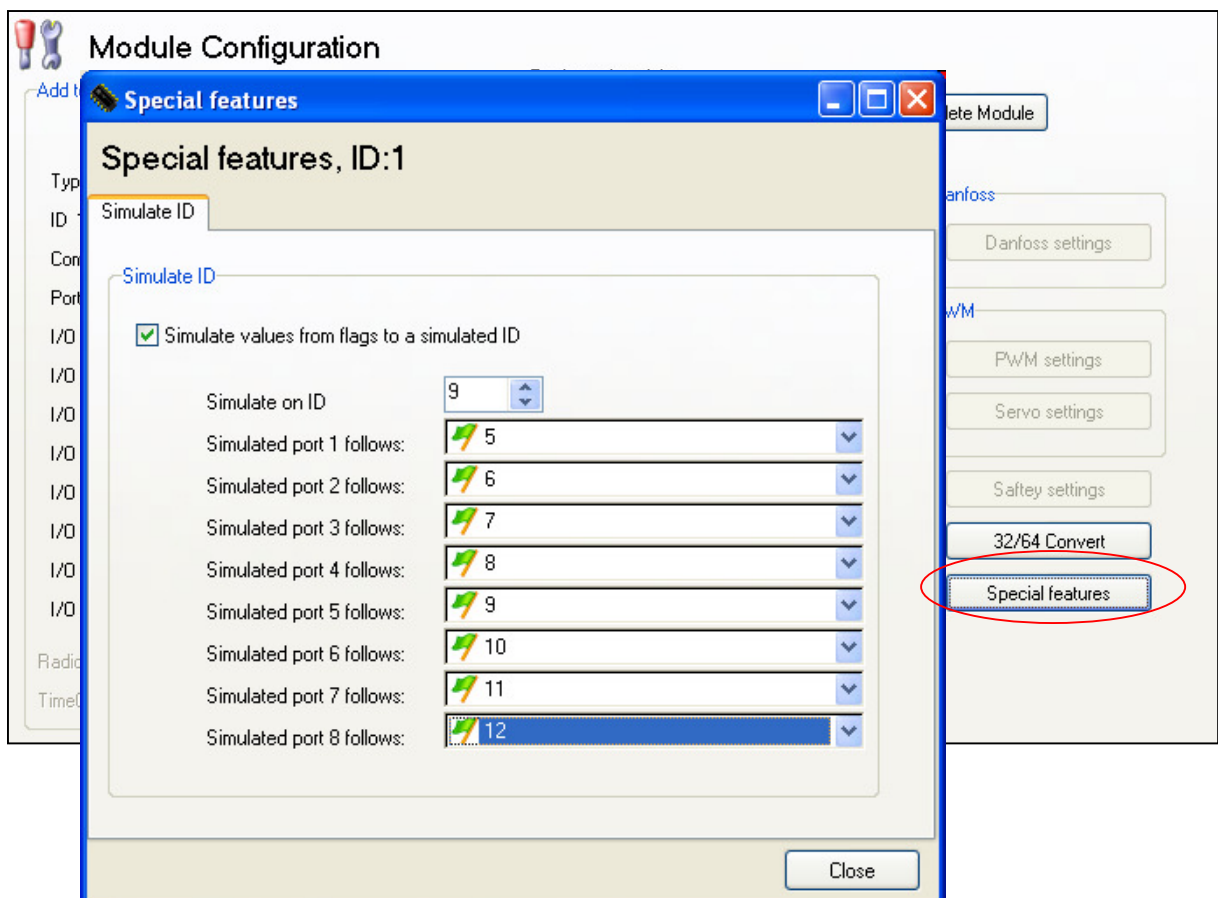
Flag 5 and forward you want on ID 9.

In CanPro: choose digital 64 module and click on special features in the corner at the bottom right. Choose the tab Simulate ID.

Then you put the simulated modules ID to 9 and choose flag 5-12 for port 1-8.

Then flag 5-12 will be sent out on ID 9 port 1-8.

Flags can be chosen freely between 1 and 64.



## SPECIAL FEATURES

### Function Increase / Decrease (PWM64)

For article number 80-560xx with PWM

The function INC/DEC can be used to change a value up and down, by just having push buttons. The module will remember this value until it is restarted.

Example:

A concrete mixer want to rotate the concrete at a certain speed. They have one button to increase the speed and one button to decrease the speed of rotation. The third button is used to stop the rotation.

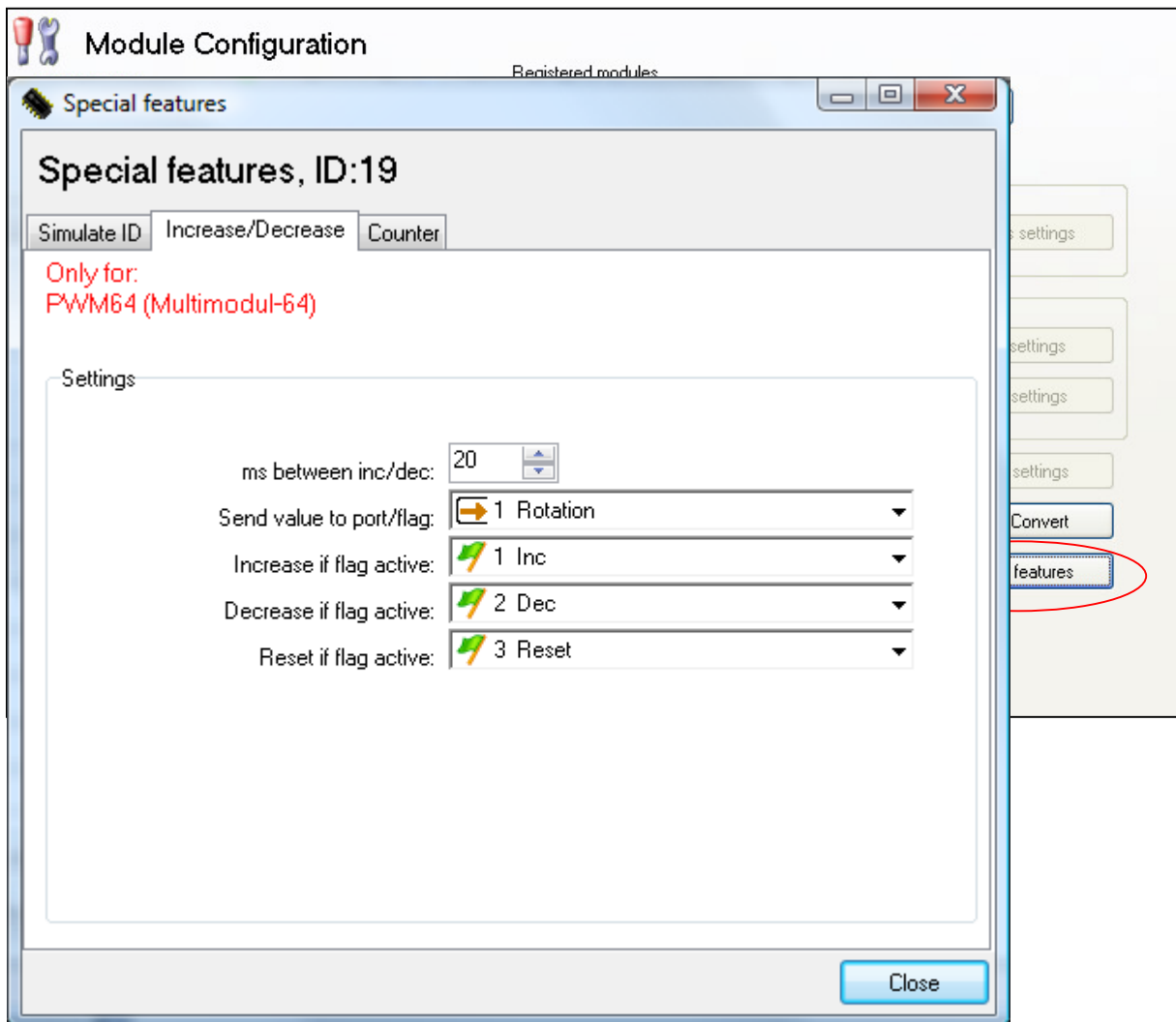
Statements for the flags:

Flag1: Button 1= 1 (inc)

Flag2: Button 2= 1 (dec)

Flag3: Button 3= 1 (stop)

Flags can be chosen freely between 1 and 64.



## SPECIAL FEATURES

### Function COUNTER (Digital64 and PWM64)

For article number 80-560xx

The function Counter can be used to count how many times a signal has been activated. First you select what flag that will trigger the counter to increase. This flag will also get the value of the counter. Then you select a flag that will reset the counter. Last you select how high the counter can count. When the maximum value is reached the counter will stay on the maximum value.

Example:

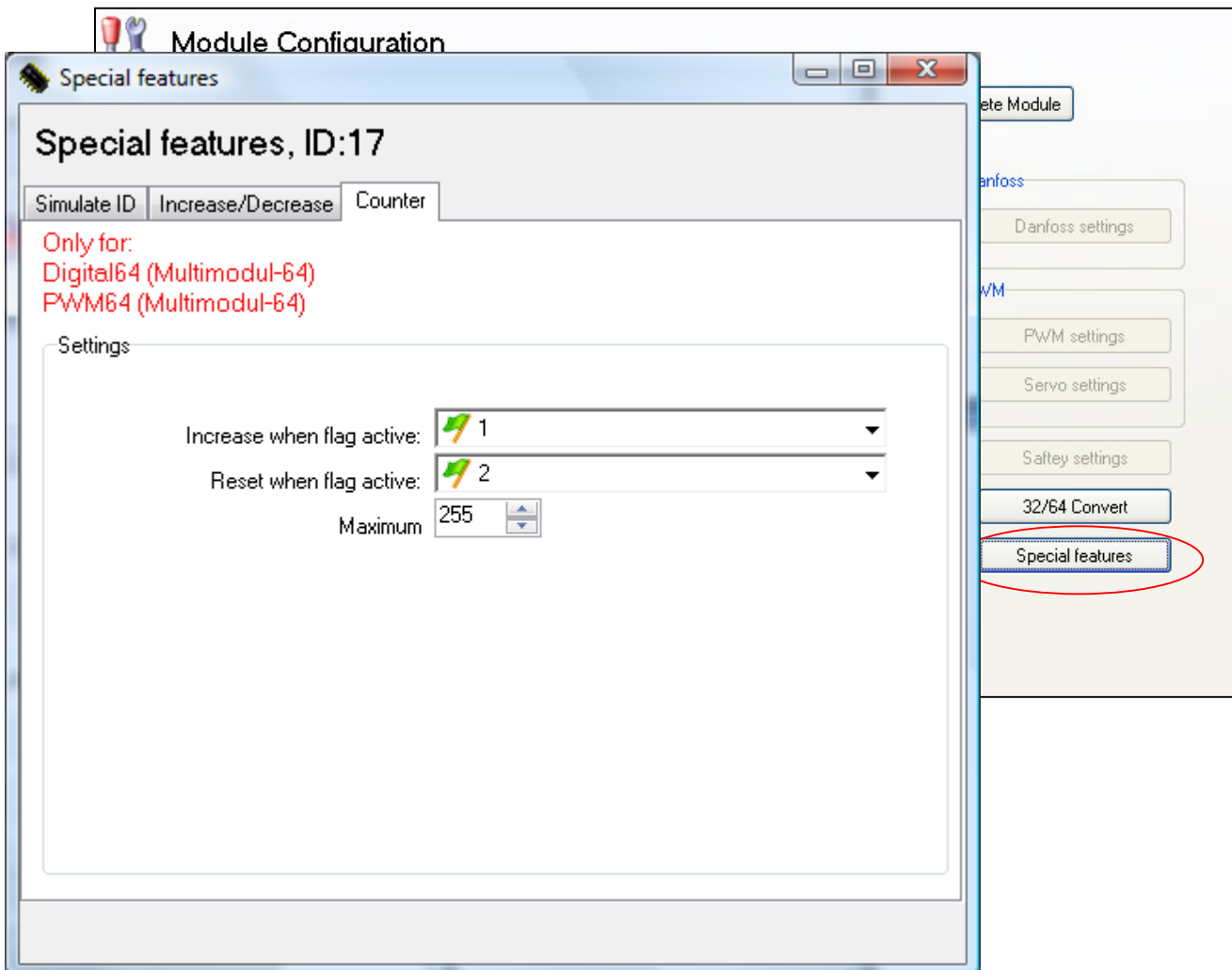
In the example below, the counter will increase each time flag1 is active.

The counter will reset as soon as flag2 is active.

The value of the counter is saved in flag1.

The counter can be useful in sequence programs or to count

Flags can be chosen freely between 1 and 64.





**Declaration of Conformity according to the EMC directive:  
Försäkran om överensstämmelse enligt EMC direktivet:**

**Type approval test according to council directive 72/245/EEC last amended by 2009/19/EC (includes 2004/104/EC, 2005/83/EC and 2006/96/EC) and type approval test according to UN ECE Regulation No. 10 Rev3:2008.**

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* Multimodul 64**

CISPR 25:2002	Radiated RF emission NB,BB	30-1000 MHz
ISO 11452-4	Conducted immunity	20-100 MHz 100mA/80%
ISO 11452-2	Radiated immunity	100-2000 MHz 50V/m 80%
	Radiated immunity PM	800-2000 MHz 100V/m
ISO 10605	ESD Air	+/- 4KV, +/- 8KV
	ESD Contact	+/- 4KV
	ESD Indirect	+/- 4KV, +/- 8KV
ISO 7637-2:2002	Transient immunity and emission	Pulse 1,2a,2b,3a,3b,4



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10.09.2009

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