

HCM3100S, HYBRID I/O MODULE

The HCM3100S Hybrid I/O module is a smart controller and I/O module with a wide range of configurable inputs and outputs. The module consists of built-in controls and functions that may be activated and configured through a CAN bus.



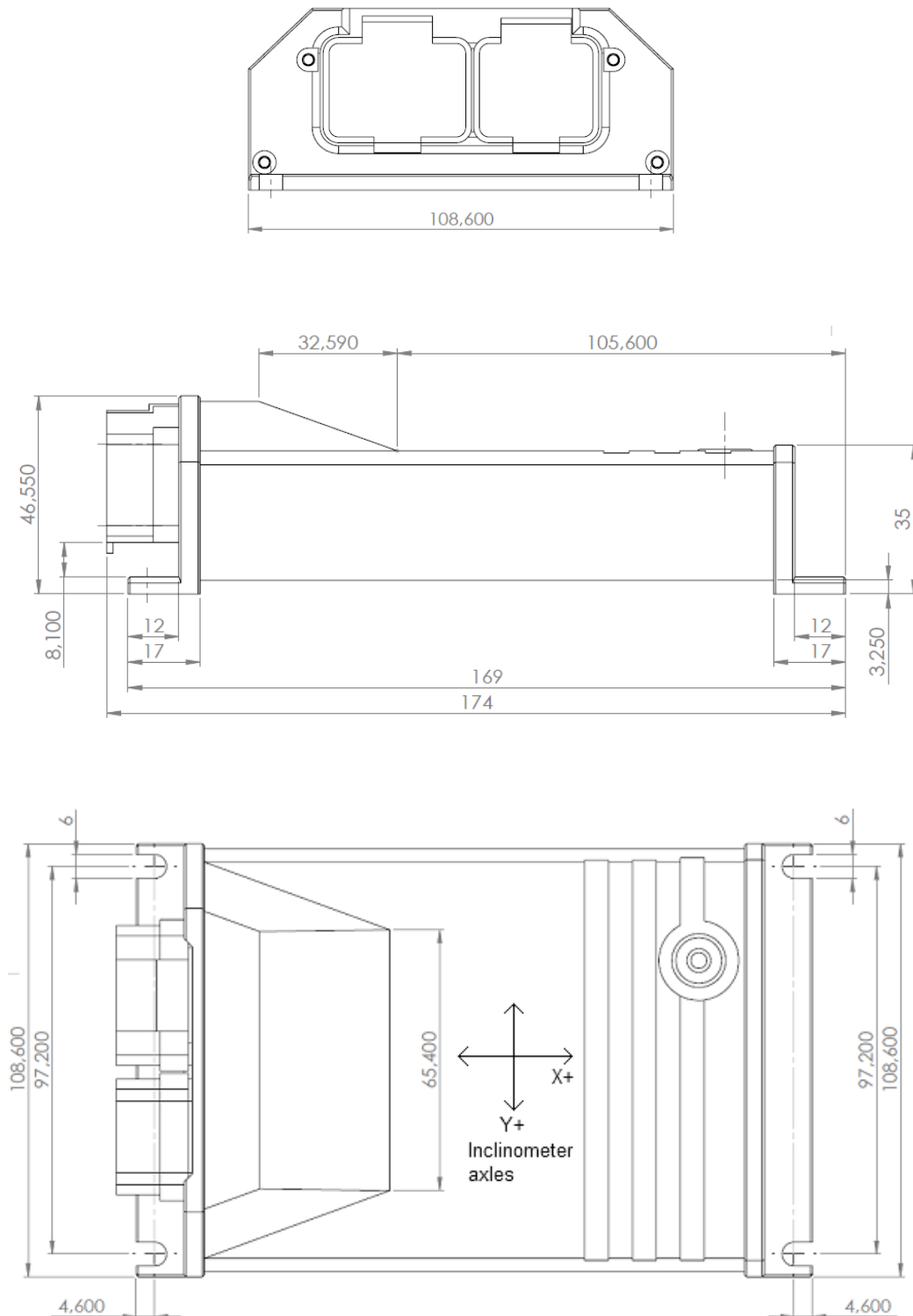
Cost-effective solutions and new innovative module architecture make it possible to exploit the advantages of smart control systems even for smaller scale machine and appliance manufacturers.

HCM3100S is CANopen compatible and thus can be easily connected to various machine control systems. HCM3100S is especially well suited to be used as measuring and user interface module with its large number of inputs.

Technical data	
Housing	Aluminium
Main dimensions (w x l x h)	109 mm x 169 mm x 47 mm
Weight	0,6 kg
Mounting	4 x M5
Housing protection	IP67
Connection	AMP Super Seal 26 pin + 34 pin connectors
Operating voltage	9 - 36 V
Operating temperature	-40 - +85 °C
Current consumption	< 100 mA (without external load)
EMC approved by	Commission Directive 2004/104/EC
CAN interface	CAN interface 2.0 B, ISO 11898
Baud rate	20 Kbits/s - 1Mbit/s (default 250 Kbits/s)
Address input	Node ID is set with pin X1/9 Factory default dec18 if module node ID pin not connected Adjustable via object dictionary/analog input
Analog / Digital Input	10 pcs 0 - 15,6 V / 0 - 52 mA (selectable with software) Current limitation at 22 mA input resistance 104 kΩ to GND / 300 Ω to GND
Digital / Frequency Input	10 pcs low < 3,5 V; high > 5 V max 32 kHz input resistance 10 kΩ to GND
Digital Input	4 pcs NAMUR inputs low < 3,5 V; high > 5 V active 5 mA load. 150 Ω to GND
Digital Input	4 pcs low < 3,5 V; high > 5 V input resistance 10 kΩ to GND
Digital Output / Input	16 pcs High side switch, max 2,7 A input resistance 10 kΩ to GND DI low < 3,5 V; high > 5 V

Technical data	
DO / DI / Proportional Outputs	8 pcs High side driver, max 2,7 A adjustable dither 62 Hz - 1 kHz input resistance 10 k Ω to GND DI low < 3,5 V; high > 5 V
Inclinometer (optional)	Angle of inclination $\pm 90^\circ$
Measurement range	Angle of inclination 0,1° (between $\pm 45^\circ$)
Measurement accuracy	

Housing dimensions:



Mounting:

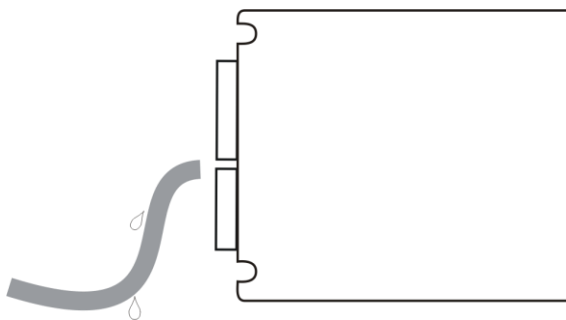
The HCM3100S is fixed to mounting panel with four M5 screws.

The module should preferably be mounted with connectors pointing downwards.

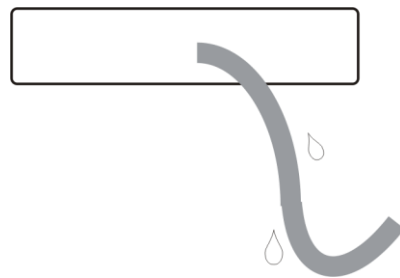
If the top-down position is not possible the two alternative mounting directions are either vertically or horizontally. With these alternate positions it is vital to leave some loose cabling hanging in a downward curve to prevent any moisture from accessing the module through the connectors.



Top-down position

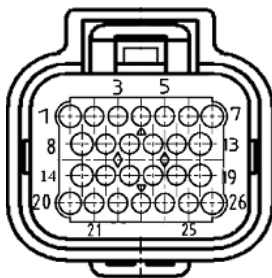


Vertical position and cable direction



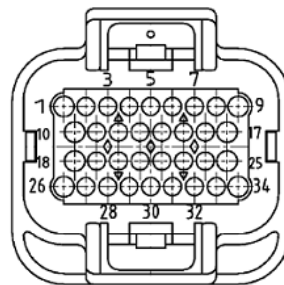
Horizontal position and cable direction

Connector structure:



X1

AMP 3-1437290-7

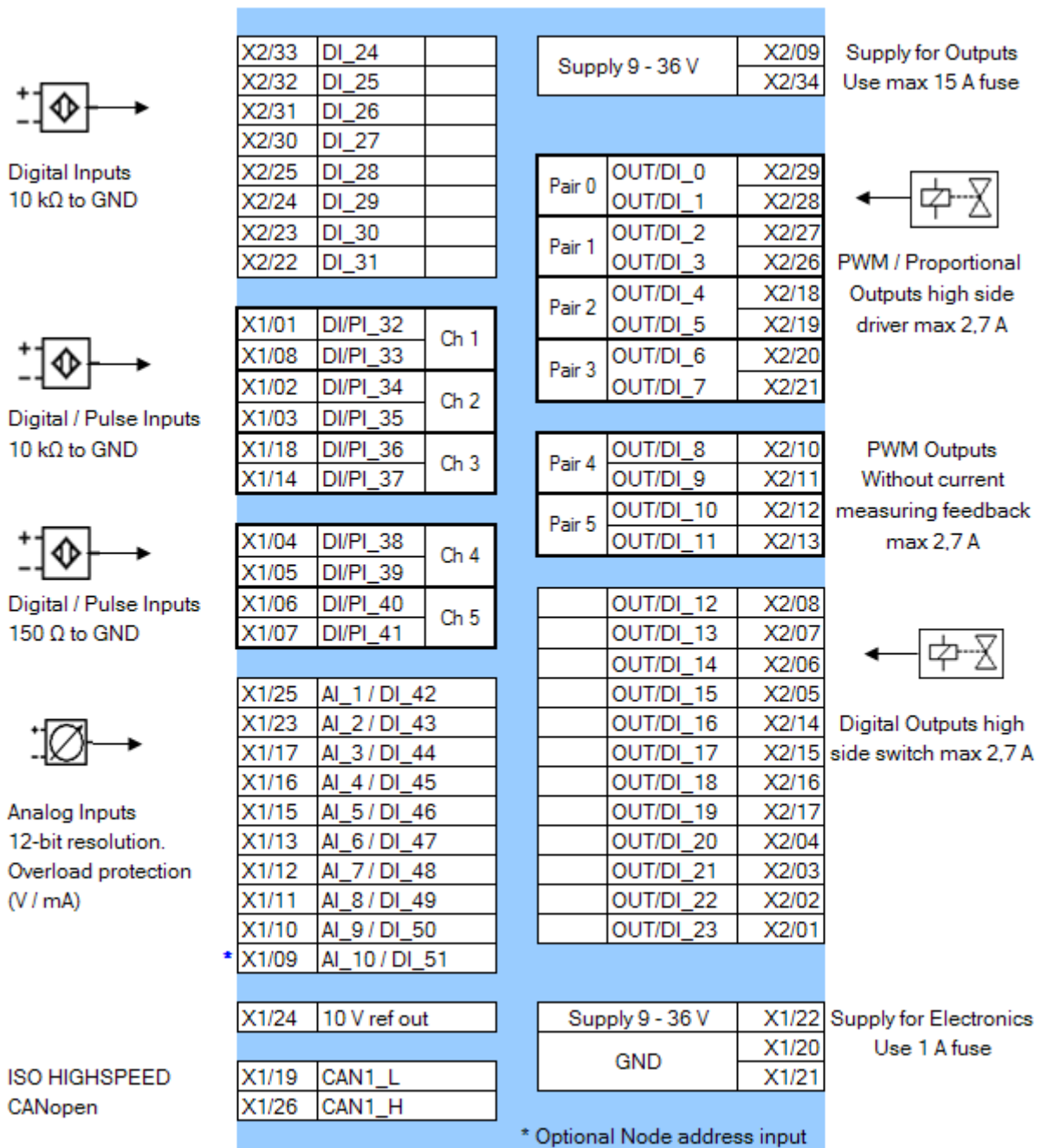


X2

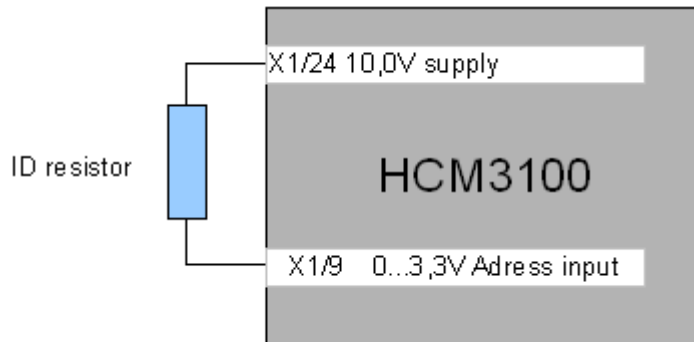
AMP 4-1437290-0

AMP Super Seal female contacts (0,75 - 1,25 mm²): AMP 3-1447221-3

Filler plug to blank spaces: Deutsch 0413-204-2005 (Must be installed to achieve waterproofness)

Block diagram:


Example use of external node-id resistor:



ID resistor	X1/9 / V	Offset
None	above 15,6	13
		11
0 ohm	10,00	9
85 ohm	7,94	7
270 ohm	5,59	5
850 ohm	3,66	3
None	0,00	1

Exertus reserves the right to change product details without prior notice.