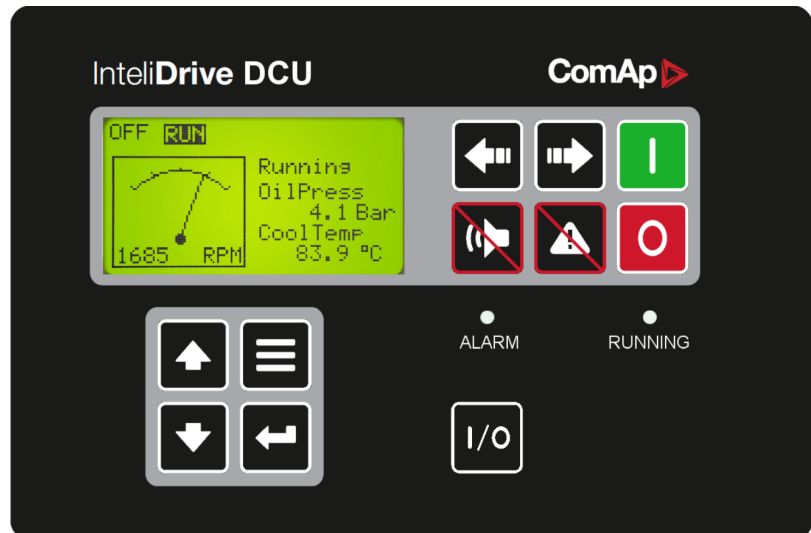


## InteliDrive DCU Industrial



Order code: ID2DCUINBAA

LT version Order code: ID2DCUINBLA

# Datasheet

## Embedded Certified Engine Controller for Industrial Applications

### Product description

- > Specialized engine controller for Industrial applications variable speed (AS) or single speed (SS)
- > Provide control, monitoring and protection diesel/gas engine and application side as well
- > Communication with up to 10 CAN J1939 (or similar like KWP2000) devices at same time

### Key features

- > Support of machinery with multiple CAN devices (ECU, ACM, SCR etc.)
- > Engine controller for land-based applications powered by engine driven compressors and pumps
- > Event driven History up to 4 000 records
- > Speed control for Tier4Final/Stage V engines
- > Plug&Play support of InteliVision display family of ComAp IV5, IV8, IV12T
- > Configurable large PLC interpret with [TechnicalTerms.PLC Editor] and monitor
- > 14 binary inputs, 14 binary outputs, 8 analog inputs
- > Over 100 binary inputs and outputs are available via CAN modules
- > 3 level password protection

- > Configurable Modbus Registers, Modbus RTU and Modbus TCP support for easy integration into the complete control system
- > Load sharing for propulsion engines
- > Integrated load and clutch control
- > Virtual shared inputs and outputs via CAN
- > Running hours meter, number of starts counter
- > Communication capabilities including RS232, RS485, Modem, Modbus, Internet, Ethernet
- > Remote monitoring via Modbus, TCP/IP, AirGate
- > Cloud-based monitoring and control via WebSupervisor
- > Front panel sealed to IP65
- > Available also in low temperature (LT) version

### Application overview

- > Single/Variable speed engine operation
- > Pump/Compressor application

# Technical data

## Power supply

Power supply range	8-36 V DC
Current consumption (depends on supply voltage)	0.34 A at 8 V DC
	0.12 A / 24 V DC
	0.09 A / 36 V DC
Galvanically isolated from controller body	YES
Battery voltage measurement tolerance	2 % at 24 V
RTC battery lifetime	Up to 10 years (20°C)

*Note: RTC battery flat causes wrong Date&Time information only.*

## Operating conditions

Operating temperature	-20 °C to +70 °C
Storage temperature	-30 to +80 °C
Humidity	95 % non-condensing (EN 60068-2-30)
Flash memory data retention time	10 years
Protection front panel	IP 65
Standard conformity	
Electromagnetic Compatibility	EN 61000-6-2 ed.3:06
	EN 61000-6-4:07+A1:11
	IEC 60533, Ed. 2; 1999-11
Vibration	5-25 Hz, $\pm 1.6$ mm
	25-100 Hz, a = 4 g
Shocks	a = 200 m/s <sup>2</sup>
Heat radiation	9 W

## Dimensions and weight

Dimensions	183 × 123 × 47 mm
Weight	800 g

## Binary inputs

Number of inputs	14
Input impedance	4.7 k $\Omega$
Input range	0-36 V DC
Switching voltage level	0-2 V DC close contact
Voltage level	8-36 V DC
Minimal input duration	110 ms

## Binary open collector outputs

Number of outputs	14
Maximum current - outputs BO1, BO2	1 A
Maximum current - outputs BO3 - BO14	0.5 A (2 A per group)
Maximum switching voltage	36 VDC

## RS232 interface

Maximal distance	10 m
Speed	up to 115.2 kBd

## D+ function

Max. D+ output current	300 mA
Guaranteed level for signal Charging OK	90% of supply voltage

## Speed pick-up input

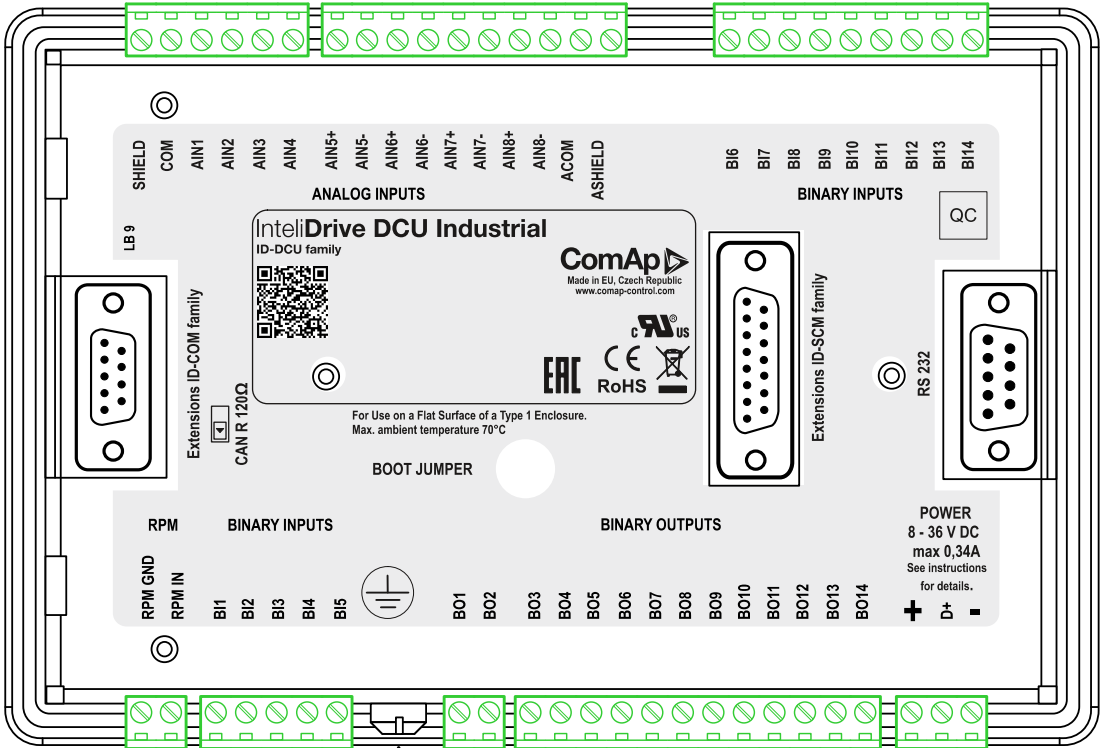
Type of sensor	magnetic pick-up (connection by shielded cable is recommended)
Input impedance	10 k $\Omega$
Input voltage range	2 Vpk-pk to 50 Veff
Minimum measured frequency	4 HZ
Maximum measured frequency	10 kHz (min. input voltage 6Vpk-pk)
Frequency measurement tolerance	1.5 %

## Analog inputs (Not electrically separated)

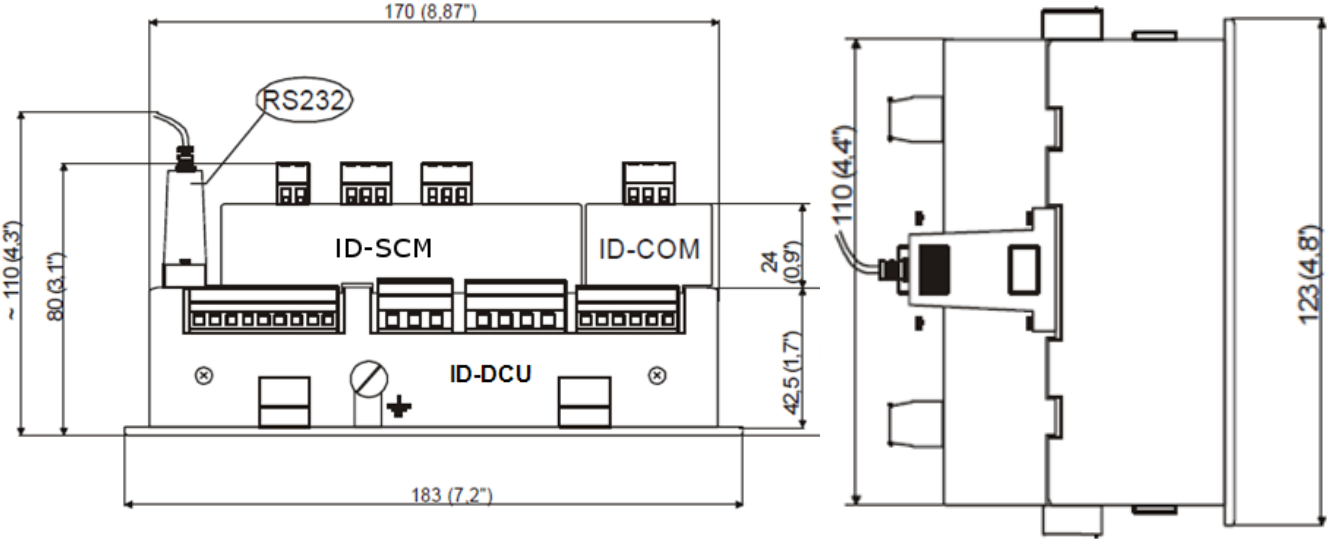
<b>Group 1 AI1 – AI4</b>	
Number of inputs	4 unipolar
Resolution	10 bits, max 4 decimals
Jumper selectable range	V, $\Omega$ , mA
Maximal resistance range	2500 $\Omega$
Maximal voltage range	4.0 V
Maximal current range	0-20 mA
Input impedance	180 $\Omega$ for mA measuring
Input impedance	> 100 k $\Omega$ for V measuring
Resistance measurement tolerance	$\pm 2$ % $\pm 2$ $\Omega$ out of measured value
Voltage measurement tolerance	$\pm 1$ % $\pm 1$ mV out of measured value
Current measurement tolerance	$\pm 1$ % $\pm 0,5$ mA out of measured value
<b>Group 2 AI5 – AI8</b>	
Number of inputs	4 bipolar
Resolution	Up to 16 bits
Jumper selectable range	V, $\Omega$ , mA, thermo coupler
Maximal resistance range	2500 $\Omega$
Maximal voltage range	$\pm 1000$ mV / 100 mV / 5 V
<i>Note: The maximal input voltage offset is in the range from -2 to +5 V DC against controller minus power supply when AI5 to AI8 is used for differential voltage measuring.</i>	

Maximal current range	$\pm 0-20$ mA active
	0-20 mA passive
Input impedance	50 $\Omega$ for mA measuring
Input impedance	>100 k $\Omega$ for V measuring
Resistance measurement tolerance	$\pm 0.5$ % $\pm 2$ $\Omega$ out of measured value
Voltage measurement tolerance	$\pm 0.5$ % $\pm 1$ mV out of measured value
Current measurement tolerance	$\pm 0.5$ % $\pm 0.5$ mA out of measured value

# Dimensions, terminals and mounting



Grounding Terminal



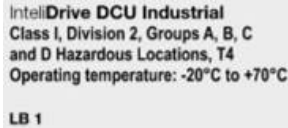


## Available extension modules

Product	Description	Order code
ID-SCM, ID-SCM1	Speed Control Module	<a href="#">ID-SCM</a> , <a href="#">ID-SCM1</a>
ID-COM	Communication Module with CAN and RS485/J1587 interface Communication Module with CAN1/CAN2/J1587 interface	<a href="#">ID-COM</a> <a href="#">CM2J1708BZB</a>
IGS-PTM	Analog/Binary Input/Output Module	<a href="#">IGS-PTM</a>
IS-AIN8	Analogue Input Module	<a href="#">IS-AIN8</a>
IS-AIN8TC	Module for Thermocouple Measurement	<a href="#">IS-AIN8TC</a>
IS-BIN16/8	Binary Input/Output Module	<a href="#">IS-BIN16/8</a>
I-AOUT8	Analog Output Module	<a href="#">I-AOUT8</a>
IGL-RA15	Remote Annunciator	<a href="#">EM2IGLRABAA</a>
Inteli AIN8	8 Analog Input Channels and 1 RPM/Impulse Input Module	<a href="#">I-AIN8</a>
Inteli AIN8TC	8 Analog Channels Module	<a href="#">I-AIN8TC</a>
Inteli IO8/8	Binary Inputs/Outputs and Analog Outputs Module	<a href="#">I-IO8/8</a>
Inteli AIO9/1	Analog Input Output Module	<a href="#">I-AIO9/1</a>

## Related products

Product	Description	Order code
InternetBridge-NT	3G Communication Module with Cellular/Ethernet Connection 4G EU market 4G USA+Canada market 4G Japan market	<a href="#">IB-NT</a> <a href="#">CM2IB4GEBFB</a> <a href="#">CM2IB4GABFB</a> <a href="#">CM2IB4GJBFB</a>
InteliVision 5	5.7" colour display unit with buttons (can be equipped by backlit buttons and Marine certification)	<a href="#">INTELVISION 5</a> <a href="#">INTELVISION 5 CAN</a> <a href="#">INTELVISION 5 CAN Backlit</a>
InteliVision 8	8" colour display unit (can be equipped by Marine certification)	<a href="#">INTELVISION 8</a> <a href="#">InteliVision 8 Marine</a>
InteliVision 12Touch OEM	12" touch colour display (OEM is equipped by Marine certifications)	<a href="#">RD1IV12TBZH</a> <a href="#">(RD112OEMBZH)</a>
I-CB	ECU Communication Bridge	<a href="#">I-CB/CAT DIESEL</a> <a href="#">I-CB/CAT GAS</a> <a href="#">I-CB/DEUTZTEM</a> <a href="#">I-CB/MODBUS</a> <a href="#">I-CB/MTU</a> <a href="#">I-CB/MTU ECS</a> <a href="#">I-CB/MTU SIAM4000</a>

## Certificates and standards

<ul style="list-style-type: none"> <li>&gt; EN61000-6-2 ed.3/2006</li> <li>&gt; EN61000-6-4:2007/A1:2011</li> <li>&gt; UL 6200</li> <li>&gt; C1D2</li> </ul>	  
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