

## Features

- Designed for 12V agricultural equipment
- Rugged ModICE® enclosure suitable for harsh environment
- 3 Analog sensor inputs for 0-5V, 0-10V and 4-20mA sensors
- 2 (optionally 3) CAN ports , ISO 11898-2 and 5
- 2 speed sensor digital inputs
- 2 general purpose digital inputs
- 4 solenoid valve high-side outputs
- All I/O protected to short circuit to power rails (Vbat and GND)



## Applications

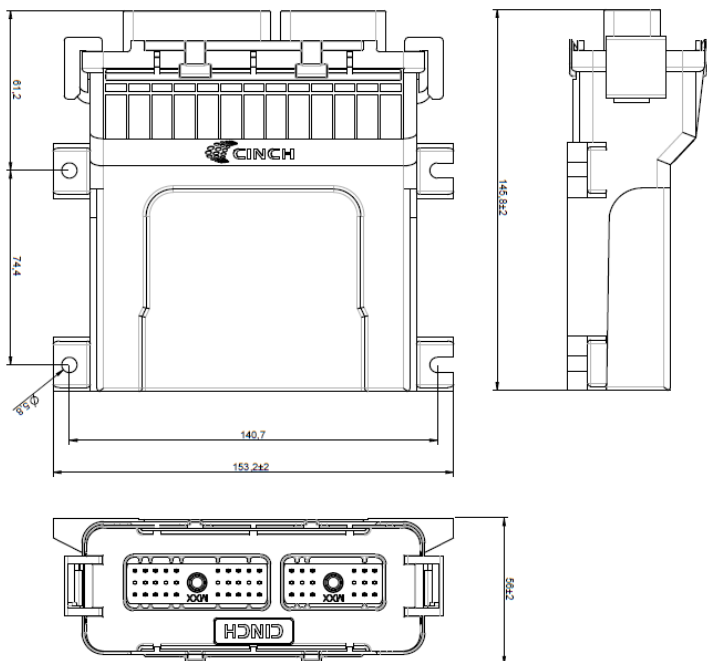
The PCS ECU (P/N 54T01068) has been developed in conjunction with the PCS200 system, but can be easily adapted for other agricultural and off-road vehicle applications.

Application example are:

- Control of seeding element in pneumatic precision planting machines
- Control of seed distributor in air-drills or small grain planters
- Control of fertilizer and microgranular spreaders in agricultural machines
- Control of Salt, fertilizer, grain spreaders

## Overall Dimensions

ModICE® SE Enclosure (18 + 30 I/O connectors) P/N 581 01 30 059



Dimensions in mm.

## Environmental Specifications

Operational Temperature:	-20°C...+75°C
Storage Temperature:	-40°C...+105°C
IP grade	ModICE® SE Enclosure fulfills IP67 / IP69K

## Electrical Specifications

EMC	The unit fulfills EN ISO 14982: 2000 standard (Agricultural and forestry machinery)
Supply voltage	9.5-16V
Supply current	Typical supply current (no external sensors connected): 250mA Typical supply current in low power mode: < 500uA.

## Processor and memory

Microcontroller Unit	C166V2 core (80 MHz clock)
Flash memory	576 KB flash + 2MB external flash
Ram	48 KB Ram + 512KB external RAM
Non volatile memory	8 KB Non-Volatile memory

## Input/output and communication

CAN	2 CAN bus lines (compliant ISO 11898-2 and 5. Up to 1 Mbit/s) CAN port 1 can be used for wake-up over CAN function.
LIN	1 LIN Physical layer 2.0 port <sup>1</sup>
Analog input	3 Analog sensor input, configured as follow: <ul style="list-style-type: none"> <li>• 0-5V (external regulated 5V supply for sensor supply, e.g. pressure sensor.)</li> <li>• 0-10V (unregulated 12V supply, load-dump protected)</li> <li>• 4-20mA ((unregulated 12V supply, load-dump protected)</li> </ul>
Digital input	2 Speed sensor inputs (up to 5 KHz). <ul style="list-style-type: none"> <li>• NPN, PNP or push-pull I/F (software configurable)</li> </ul> 2 general purpose sensor inputs <ul style="list-style-type: none"> <li>• NPN or PNP</li> </ul>
Outputs	4 Solenoid valve high-side outputs (1A max per channel) Application specific output to drive automotive alternator D+ signal

## Disclaimer

The present specifications are intended to be preliminary. Parameters and values indicated in the document might be subjected to changes. For further information, please contact: [mechatronics@roj.com](mailto:mechatronics@roj.com)

<sup>1</sup> Can be optionally replaced with a 3<sup>rd</sup> CAN interface or a RS485 port upon request.