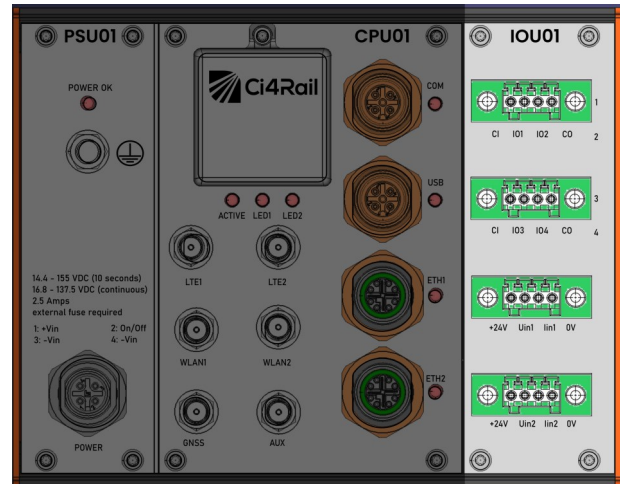


Binary & analogue input/output extension unit (ModuCop) for edge applications in rail & busses

Features

- 1 slot (7 HP) extension unit for ModuCop Edge Computer
- 2x2 digital inputs / outputs (selectable) via 4-pin spring terminal;
- 0..110V (nom), common ground
- 2x1 analogue input via 4-pin spring terminal
- Selectable voltage (+/-10V) or current (4..20mA) type
- 24V supply to external sensor
- Galvanic isolation of all inputs and outputs
- EN 50155 compliant (integrated in ModuCop)



Introduction

The binary and analogue I/O unit **IOU01** extends the functionality of the modular and flexibly expandable Edge Computer ModuCop MEC. Fully integrated in ModuCop, IOU01 provides four cost sensitive binary inputs / outputs as well as two analogue inputs in addition to the various interface offerings of the base computer MEC.

IOU01 enables ModuCop to connect to even more vehicle interfaces and is intended to be used in applications with the need of reading status of binary signals, controlling switching elements by its binary outputs or connecting analogue sensors. For comfortable installation IOU01 offers 24V (DC) supply power via its analogue inputs..

Software configurability offers highest flexibility for usage of binary inputs/outputs as well as voltage or current operation mode for analogue inputs. .

IOU01 is powered by ModuCop integrated power supply and controlled by ModuCop CPU unit.

IOU01 is fully supported by Ci4Rail's Linux Microservices Platform, running on ModuCop.

Applications

- Condition-based / predictive maintenance
- Board computer
- Fleet optimization
- Ticketing System
- Security Gateway
- Anomaly detection systems

Software

Fully supported in and integrated in Linux Microservices Platform (LMP)

Secure SW update for IOU01 integrated Micro Controller.

Specifications

Input/Output	S101-IOU01-
Binary Input/Output	2x2 IN/OUT via 4p spring terminal
Binary I/O characteristics	0..110V DC (nom) - common ground
Binary I/O configuration	Operation mode configurable by software
Analogue Input	2x1 AI via 4p spring terminal
Analogue In characteristics	voltage (+/-10V) or current (4..20mA)
Analogue In configuration	Operation mode configurable by software
Analogue In external supply	24V DC, (TBD mA)
Galvanic isolation	500V DC / 5 Groups
Power Input	Via ModuCop System
Mechanics	
Dimensions	1 Slot (ModuCop System) Width: 35.3 mm Depth: 61.2 mm Height: 111.5 mm
Installation	ModuCop Extension Slot
Environmental*	
Operating Temperature	-40...+70°C / 85°C (10min) (EN 50155:2017 - OT4 + ST1)
Storage Temperature	-40...+85°C (EN 50155:2017)
Humidity	95% (EN 50125-1:2014)
Altitude	3000 m max. above sea level (EN 50125-1:2014, class AX)
Shock / Vibration	EN 61373:2010; Cat. 1; Class B
EMC Emission / Immunity	Rail Applications: EN 50121-3-2:2016; EMV 06 (2.0) Class S1; EN 301 489-1 (V2.2.3) Automotive Applications ECE R10 Rev.5
Safety	EN 50155:2017; EN 50153:2014+A1:2017; EN 50124-1:2017; EN 62368-1:2016; EN ISO 13732-1:2008
Fire&Smoke	Rail Applications: EN 45545-2:2013 + A1:2015; HL3 Automotive Applications: ECE R118
Useful Life	20 years (EN 50155:2017, class L4)
Pollution Degree	PD2 (EN 50124-1:2017)

* All environmental data apply for proper installation in ModuCop Edge Computer.

Order Information

The product can only be ordered as integrated I/O extension unit in ModuCop Edge Computer.

Please [contact](#) us for your specific configuration.

Accessories

N/A
