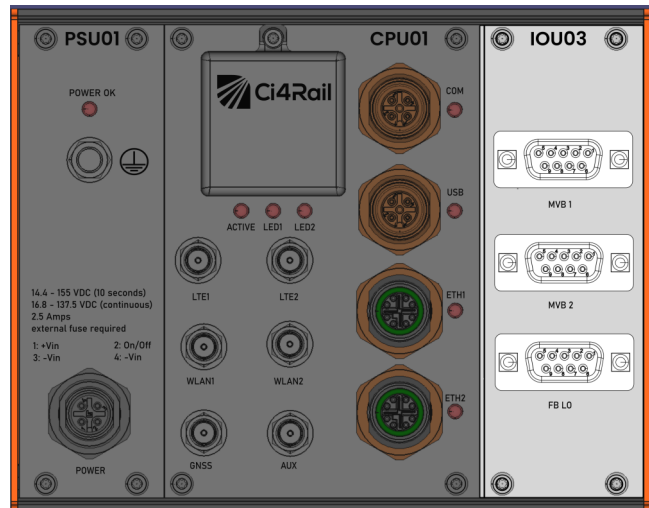


Non-retroactive MVB / CAN sniffer extension unit (ModuCop) for edge applications in rail & buses

## Features

- 1 slot (7 HP) extension unit for ModuCop Edge Computer
- 1x MVB listen only via 2x 9-pol Dsub (male / female)
- 1x CAN listen only via 1x 9-pol Dsub (male)
- Alt. 1x RS485 listen only (shared with CAN interface connector)
- Data acquisition through capacitive coupling
- Galvanic isolation
- EN 50155 compliant (integrated in ModuCop)



## Introduction

The MVB/CAN sniffer unit **IOU03** extends the functionality of the modular and flexibly expandable Edge Computer ModuCop MEC. Fully integrated in ModuCop, IOU03 allows non-retroactive data acquisition from TCN networks as MVB and CAN for the purpose of condition based monitoring, predictive maintenance or even TCN anomaly detection.

IOU03 offers two read-only MVB interfaces to connect to both redundant channels allowing least influential connection to existing network infrastructures by its capacitive coupling technology.

For installations with CAN as TCN network, IOU03 offers one read-only CAN interface (capacitive coupling) to acquire CAN TCN messages.

IOU03's onboard microcontroller allows local configuration and filtering to select desired message types, IDs etc. which offloads ModuCop host CPU dramatically.

IOU03 is powered by ModuCop integrated power supply and controlled by ModuCop CPU unit.

IOU03 is fully supported by Ci4Rail's Linux Microservices Platform, running on ModuCop.

## Applications

- Condition-based / predictive maintenance
- TCN anomaly detection systems
- Fleet optimization
- Security Gateway
- Board computer

## Software

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

Selection and filtering of data acquisition through service modules, accessible from application space.

Secure SW update for IOU03 integrated Micro Controller.

## Specifications

Input/Output	S101-IOU03-
MVB	MVB Read-only dual channel A/B via 9p DSub (plug) MVB Read-only dual channel A/B via 9p DSub (socket) Connected through according to EN 61375-3-1 standard
MVB data rates	Up to 1 Mbit/s
CAN	CAN read-only via 9p DSub (plug)
CAN data rates	Up to 1 Mbit/s
RS485	Alt. to CAN interface RS485 read-only via 9p Dsub (plug)
RS485 data rates	Up to 256 kBuad
Galvanic isolation	500V DC / 3 Groups (MVB/CAN/Shield)
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

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

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

## Accessories

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N/A

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