

INGESYS

RC3

Train Control & Management System



INGESYS RC3 is Ingeteam's control platform applied to the control and monitoring (TCMS) of rolling stock in the railway sector.

The INGESYS RC3 integrates the main automation functions required in a train: Vehicle Control Unit (VCU), remote I/O units (RIO), web application (HMI), remote monitoring unit (RCM) and interconnection and integration elements of the different communication buses in the train.

TCMS

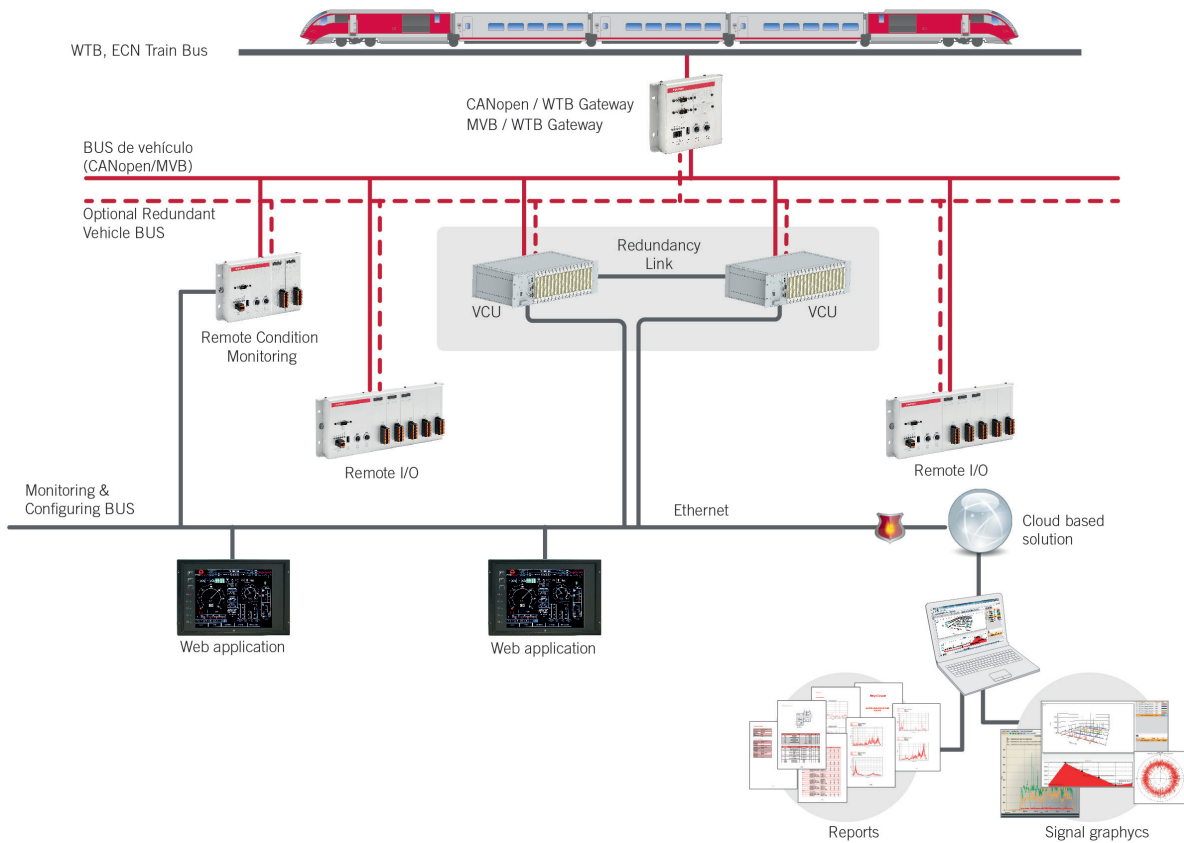
Main characteristics

- It Incorporates the VCU, HMI, RIO, RCM and communications gateways functionalities
- Compliance with EN50155 and EN45545-2 standards
- IEC61131, C/C++, MATLAB/SIMULINK programming tools
- Modelling and simulation tool of the train control application based on MATLAB®/SIMULINK® BASED MODELLING AND SIMULATION TOOL
- 19' rack mounting
- High availability based solutions with HotStandby processor redundancy, redundant communication networks and power supply redundancy
- Most common communication buses and protocols in the railway sector: WTB, MVB, CAN, ETHERNET/IP, TRDP, RS485, etc.
- Designed in accordance with cybersecurity standards (IEC 62443)
- Advanced maintenance and monitoring functions
- 30 years of product availability, guaranteeing repair and maintenance service for an additional 10 years

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Ingeteam

	Technical Features
Characteristics	Linux on ARM dual-core processor Wide range of power supplies IO modules (digital, analogue, temperature, fast inputs) Communication modules Rolling stock communication protocols (CAN, Ethernet IP, TRDP, MVB, WTB,...) Distributed I/O architecture Cybersecurity module
Programming	IEC61131-3 standard languages C/C++ MATLAB®/SIMULINK®
Advanced diagnostics	Event and data logging module Viewer of historical data and active alarms Event viewer Remote access for parameterisation and diagnostics via secure web services
Remote management	Remote management of vehicles Cloud or On Premises centralised management Train-to-Ground communication
High availability	Soft and Hot Standby Redundancy Redundant power supply and I/O topologies Communications redundancy Hot swappable modules (HotSwap)
Standards	EN 50155 Standards [Class OT4 (-40°C to +70°C)]. EN 45545-2



The technical data in this catalogue is subject to change without prior notice. FY82IPT01_0924