

PM-DiagBox

Turnout Acquisition Device : control equipment.

PM-DiagBox

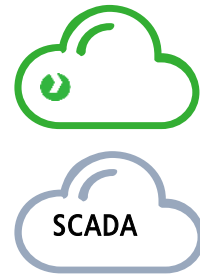
The PM-DiagBox is part of Turnout Vossloh Acquisition Device (Turnout VAD) and V-MON, monitoring solution for maintenance rail infrastructure. It measures all the physical characteristics of point machines – both electromechanical and hydraulic – and is suitable for new installation or retrofitting. The PM-DiagBox have a long-range ground bus, it can be installed to several kilometers to his gateway.

The PM-DiagBox is a smart open acquisition device which can be used by all our customers even if the existing system does not have a VOSSLOH motor.

It combines different types of inputs allowing it to communicate with a wide panel of commercially available sensors measuring hydraulic pressure, current, vibration and more. Alternatively, an all-in model integrates the necessary sensors.



It can function as a standalone module thanks to embedded storage or integrated in the network thanks to standard communication protocols such as MQTT or OPC-UA and can be connected directly to the customer's SCADA system or to the VOSSLOH V-MON server.



The PM-Diagbox can operate independently, i.e., without a server. The operator can therefore retrieve this data via a simple PC directly online or, if the PM-Diagbox is connected, from the network.



Cybersecurity



Hydraulic pressure



Power Consumption



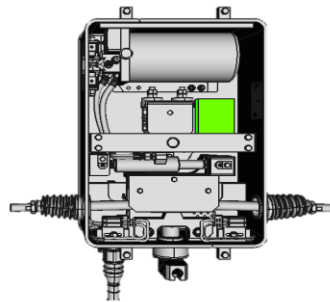
Vibrations & shocks



Temperature



Humidity



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Smart & Integrated

Main specifications

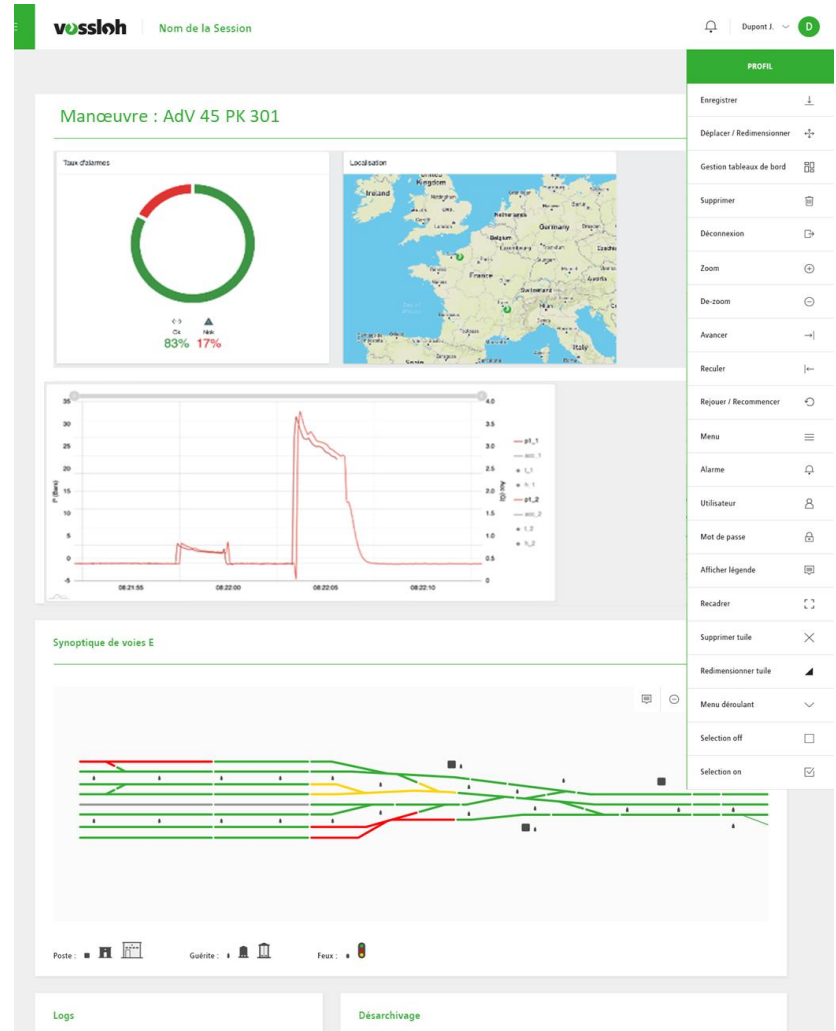
New structure	Installation fully integrated into the point machine
Existing structure	External mounting on point machine using various systems : screw, strap, glue etc. Standard internal mounting: DIN Rail
Cyber Security	Can be used on a private network
Communication	Secure maintenance mode Gateway to Ethernet protocol: MQTT and OPC-UA
Local memory	5.000 measurements

Railway requirements

New and existing installations	Factory integration or supplied as a kit for on-site mounting
Operating temperature range	From -40 °C to +80°C
Resistance	IK9 impact rating / IP67 waterproofing / Railway EMC protection

Functions

Monitoring	Vibrations, shocks, positioning Temperature, humidity Power consumption Hydraulic pressure
Integrated Intelligence	Edge computing



Complete curve transmission to the customer SCADA system or VOSSLOH analysis server.

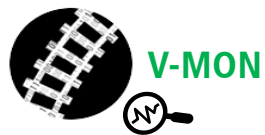
Data transmission via the Canbus Gateway can allow ethernet, 4G or optic fiber communication support



PM-DiagBox
V-MON: Vossloh Monitoring
Solution

The PM-DiagBox is part of the Turnout VAD and a product of the V-MON range.

V-MON is an extensive range of rail infrastructure monitoring solutions for maintenance teams.



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