CBM Predictor - Data Sheet

Functional Specifications

Predictor model overview

Serie 100	*Vibrations applications with internal sensors including POP and Leak*
Model 101	PSV POP and Leak
Model 102	ESDV/PSDV valve leak
Model 103-109	Reserved for future use
Model 110	Pipe vibrations 2Hz – 500 Hz
Serie 200	*Temperature measurements with external sensors*
Model 201	Heat trace temperature measurements
Model 202	process medium temperature measurements
Serie 300	*Pressure measurements with external sensors*
Serie 400	*Vibrations applications with external sensors*

Design Features

Wireless connects to wireless routers with Bluetooth® Low Energy (BLE) wireless technology
Housing with cover: LNP STAT-KON PFD04, a compound based on PA 6 resin containing Glass Fiber, Carbon Powder. Added features include Electrically Conductive, Heat Stabilized.
Ultra-low power consumption, lifetime battery
Secure field programmable

Self-Calibration

The CBM Predictor monitors the equipment continuously while in low power consumption mode and will switch to full communication mode on request, on pre set time intervals or triggered by the abnormal condition.

Physical Specifications

Environment

The complete assembly will withstand saline and humid atmosphere
Operating temperature: Minus 20 deg C to plus 70 deg C

Electrical Connections / Battery

Not replaceable, non-rechargeable, Intrinsically Safe Lithium-Thionyl Chloride battery
Eight to twelve-year battery life at reference conditions

Field Data Communication

All data communication is wireless via BLE 5 including upload of configuration data and operation system upgrades. The Device can also communicate via BLE4 with more mature handheld devices.

Materials of Construction

Housing base and housing cover
PA6 resin

Antenna

Integral in electronic circuit design

Mounting
Device to be attached directly on the equipment to be monitored or thermowell depending on the design
Saddle strap
Stainless hose clamp type to fit any diameter valve body (for PSV and SDV)
Weight - 150g

FCC and IC

This device complies with Part 15 of the FCC Rules. Operation is subject to the following conditions: This device may not cause harmful interference. This device must accept any interference received, including interference that may cause undesired operation.

Reference environmental and electrical specification

Hazardous Locations Certificates
Explosion protection II 1G Ex ia IIC T4 Ga, T ambient -20 deg C to +70 deg C
Europa: ATEX Directive (2014/34/EU) CAM B
Applied Standard : EN 60079-0:2018; EN60079-11:2012
Certificate DNV Presafe 20 ATEX 403841, IECEx DNV 21.0105
Environmental protection
Environmental protection according to IEC standard 60529 to IP 67
Electro Magnetic Compatibility (EMC)
ETSI EN 301 489-01 V2.2.3 (2019-11)
ETSI EN 301 489-17 V3.1.1 (2017-02)
ETSI EN 300 328 V2.2.2 (2019-07)
Vibration Effect
Tested per the requirements of IEC60770-1 field or pipeline with high vibration level (10-60 Hz 0.21 mm displacement peak amplitude / 60-2000 Hz 3g).

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