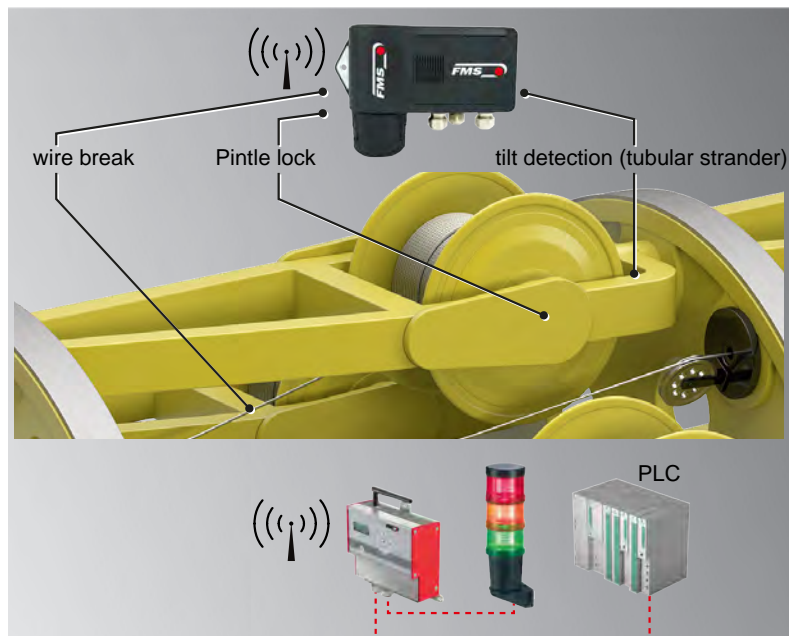


FMS Telemetry Systems

FMS-cradleGUARD™ Reliable safety-monitoring of all cradles

- Improved Machine Safety**
 Reliable transmission of time and safety critical signals VDC
- Fast Troubleshooting, short Downtimes**
 Explicit text messages on which cradle the fault lies, saves time and money
- Easy to retrofit**
 Compact package, no slip-rings required, battery life of several months, optional 24 VDC
- Universally applicable, up to 42 Cradles**
 3 independent inputs for pintle lock status, wire break detection, cradle tilt switch, etc.

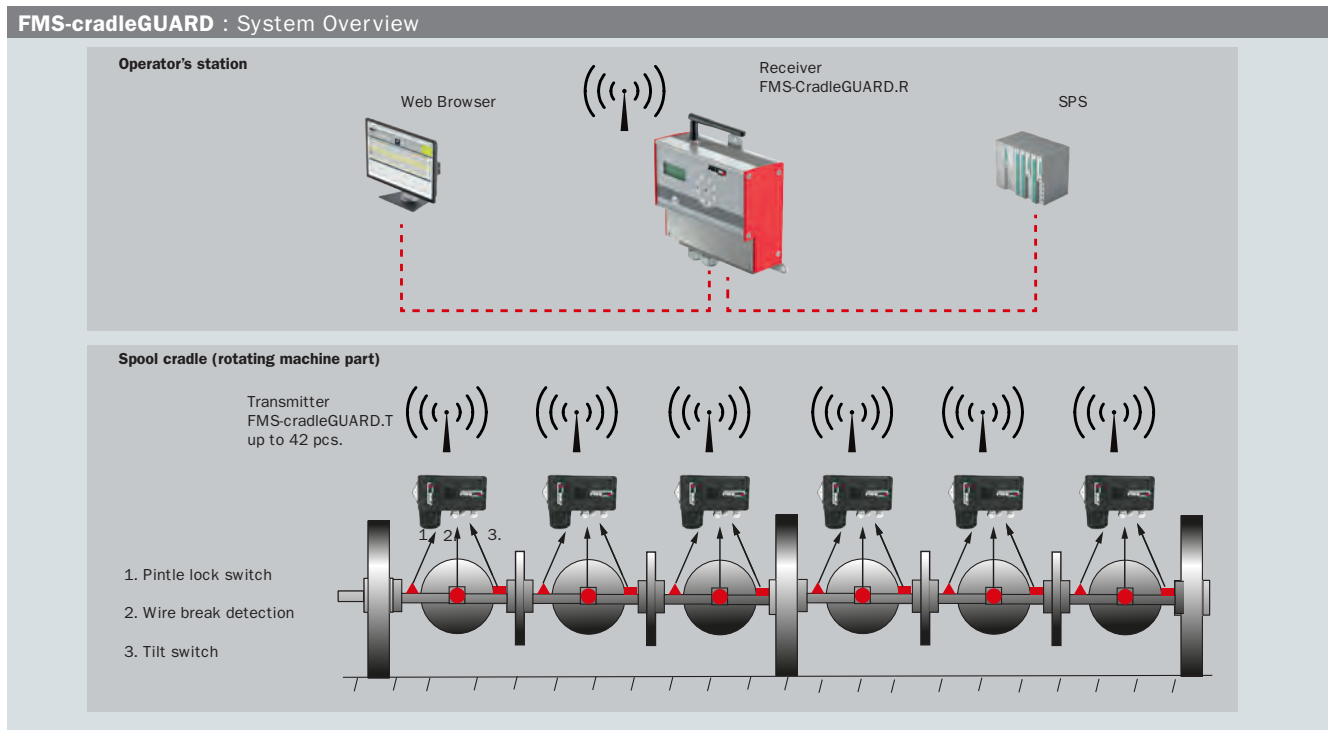


FMS-cradleGUARD

The FMS-cradleGUARD Telemetry System was developed to improve safety and decrease downtime on older machinery. The current use of slip rings to obtain signals relating to the pintle lock status and cradle tilt are maintenance intensive and with the limited information provided contribute to production downtime. They are more frequently a source of error rather than a contribution to machine safety! With the FMS-cradleGUARD, the safety relevant signals are transmitted directly from the payoff cradle to the operator's station. The explicit indication of the faulty cradle allows for fast, reliable trouble shooting, and therefore the ability to put the machine back into production as quickly as possible. Industrially proven, rechargeable batteries power the transmitting module on the machine.

Functional description

The FMS-cradleGUARD consists of only two components: A transmitter module (FMS-cradleGUARD.T) and a receiver module (FMS-cradleGUARD.R). The Transmitter Module is mounted at the cradle and includes the power supply (industrial 12 VDC batteries or 24 VDC power supply), connection terminals for up to 3 switches, and the radio module. Radio frequencies are individually selected to provide operational safety. The Receiver Module is mounted near the operator's station and indicates the status of the signals from each transmitter module in a clear text message on its large display. Integrated relay outputs can be used to connect to a PLC or to a remote alarming signal. System set up, including the assignment of the transmitter modules to specific cradles, can be performed using the integrated web browser and a connection to a PC. The optional FMS-cradleGUARD software can provide online status indication as well as full system configuration.



FMS-cradleGUARD : Main Components

Receiver module FMS-cradleGUARD.R
 Near the operator's station, receiving data from the transmitter module

Transmitter module FMS-cradleGUARD.T
 Mounted on the cradle, terminal block for switches and radio chip

Batteries and charger
 With quick release, in industrial quality



- Clear text indication of error in the display
- 4 freely configurable relay outputs
- Configuration via web browser



- 3 inputs NPN or PNP and NC / NO, freely configurable
- Power supply from rechargeable batteries, optional 24 VDC (18 to 36 VDC)



- 12 VDC, 3 Ah
- depending on the operation mode, a battery life of several months can be achieved

FMS-cradleGUARD.R : ETSI Radio-Certification	
Test scope	Article 3.2 of Directive 1999/5/EC (R &TTE Directive)
Certification	ETSI EN 300 440-2 V1.5.1 (2009-03); ETSI EN 300 440-1 V1.3.1 (2009-03)
FMS-cradleGUARD.T : FCC Certification USA, Canada	
Test scope	Class A digital device, pursuant to Part 15 of the FCC Rules
Certification	FCC Registration #: 0020311882
FMS-cradleGUARD.T : CAB Radio-Certification for Japan	
Magnitude of Test (Coverage)	Low power data communi. FXD; Art. 38 -24, Paragraph 1 of radio law
Certification	Article 2, Clause 1 Item 19, Certification ID #: 202WWSM10126721

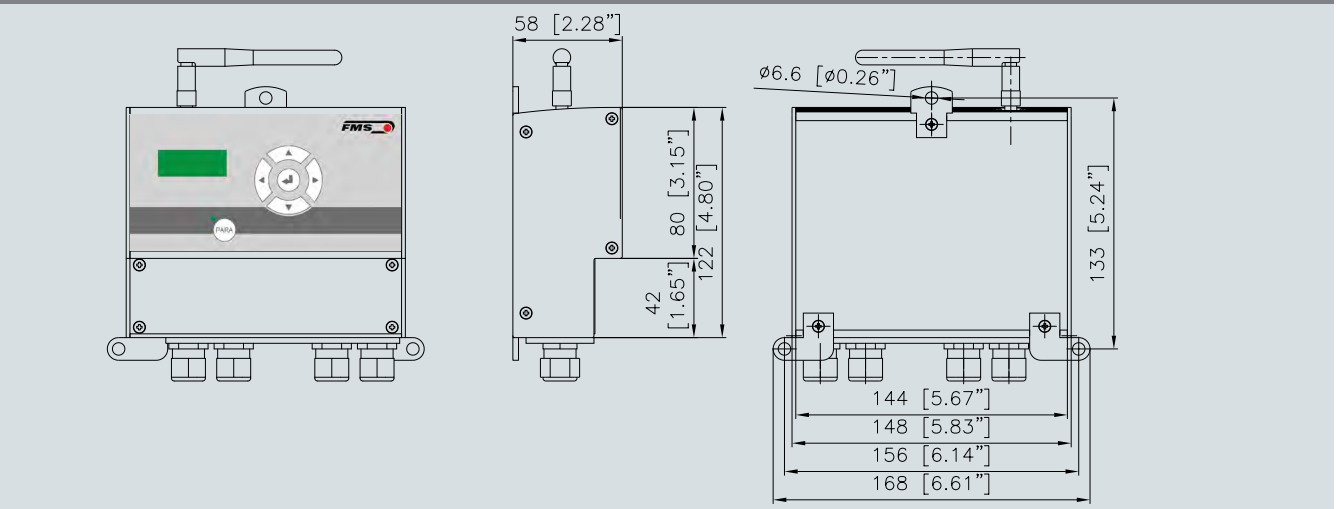
FMS-cradleGUARD.R : Technical Data

Display	LCD 2 x 8 Digits (5 mm)
Propagation delay	0.84 to 8.4 sec., adjustable
Interface	Ethernet via web browser (Internet Explorer 7 or higher)
Radio interface	2.44 GHz
Relay outputs	4 relay contacts DC: 24 V / 0.5 A / 12 W; AC: 24 V / 0.5 A / 62.12 VA
Power supply	24 VDC (18 bis 36 VDC) / 10 W (max. 0.5 A)
Temperature range	0 to 50 °C (32 to 122 °F)
IP protection rating	IP 52
Weight	0.65 kg (1.43 lbs.)

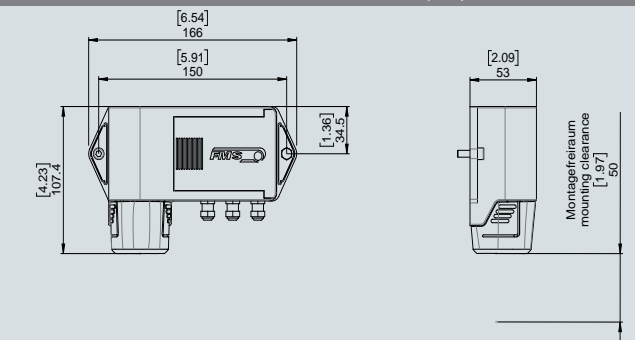
FMS-cradleGUARD.T : Technical Data

Power supply	Industrial battery, 12 VDC, 3 AH, optional 24 VDC (18 to 36 VDC)
Radio interface	2.44 GHz
IP protection rating	IP 50
Weight	0.8 kg (1.8 lbs.)

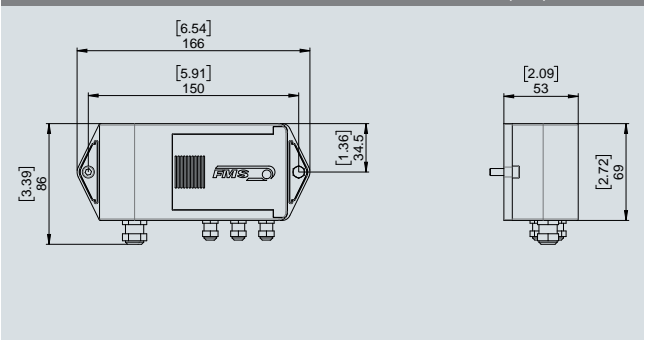
Receiver FMS-cradleGUARD.R : Dimensions mm (in.)



FMS-cradleGUARD.T : Dimensions mm (in.)



FMS-cradleGUARD.T.24VDC : Dimensions mm (in.)



FMS-cradleGUARD : Scope of supply

- FMS-cradleGUARD receiver module ● FMS-cradleGUARD transmitter module(s) ● industrial batterie(s) ● industrial charger(s)

FMS-cradleGUARD : Not in scope

- switches (incl. cable) ● installation material

FMS-cradleGUARD : Accessories

- Ethernet cable (please indicate length) ● installation and start up support (our specialist will support you on request) ● 24 VDC power supply (for FMS-cradleGUARD.R receiver module)

FMS-cradleGUARD : Typical Application



Other Products : Wire & Cable Industry

Telemetry System RTM X42

Strand tension monitoring in stranders



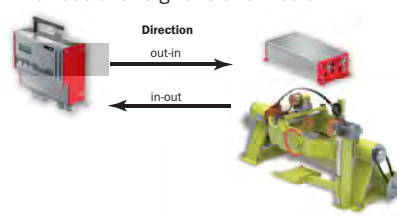
System Extensions for RTM X42

Tension monitoring and control



Telemetry System RTM MP

Bi-directional signal transmission



About us

FMS Force Measuring Systems AG is the market leader in the field of web tension measurement, control and specialist for web guiding solutions. For the wire industry we are the only manufacturer offering a complete range of technologies for force measurement, data processing and radio transmission of signals.

Our in house developed products are used in the manufacturing industry, converting, metals, paper, textiles, as well as in cable and wire rope production. Utilising the latest technology, high quality components and a firm understanding of customer applications, FMS supports customers worldwide in the effort to maximize the productivity of their machines. Since 1993, our highly qualified employees have been creating high-end solutions for machine builders and plant operators. As an owner-managed company, we pride ourselves on being personal and approachable with the ability to make decisive moves fast.

World Headquarters: FMS Force Measuring Systems AG

Aspstrasse 6 • 8154 Oberglatt (Switzerland) • Phone + 41 44 852 80 80 • Fax + 41 44 850 60 06
 info@fms-technology.com • www.fms-technology.com