

LIRIS – Preventative System Solution

- ✓ Multicriteria Optical Strand with integrated mini station
- ✓ Function "18 in 1" (Until 18 conclusive information)
- ✓ No connection cable
- ✓ Autonomy until 5 years

LIRIS the **Autonomous Optical Strand** is a measurement system particularly innovating, allowing for a cumulated deformation measure, without dead time.

It transmits data with a **radio connection**.




Its distinctive asset is to be free of:

- Cable link
- Any power supply

Its length is 2 meters.



LIRIS is available in **3 modes of preventive monitoring**, from the one shot measurement point until the permanent surveillance with periodical visits.

 <p>WHITE</p>	<p>ON SITE</p>	<p>ONE MINUTE CAPTURE</p>	<p>COMPARATIVE CHECK</p>	<p>Real-Time information on site. Check against comparative data.</p>	<p>CHECK</p>
 <p>CHROMIUM</p>	<p>ON SITE</p>	<p>ONE MINUTE CAPTURE</p>	<p>LAST 24H STORAGE</p>	<p>Last 24 hours of data available on site. Inquire into prospective structural issues.</p>	<p>INQUIRE</p>
 <p>BLUE</p>	<p>ON SITE</p>	<p>REPORT</p>	<p>LAST 6 MONTH STORAGE</p>	<p>Last six months of data available on site and out site. Regular reports.</p>	<p>STATEMENT</p>

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Applications



MEASURING RANGE

Optical strand

Sensor length :	2 m
Measuring path:	10 mm
Resolution:	0,001 mm
Accuracy error with constant temperature:	$\pm 0,002$ mm
Measuring frequency:	Up to 50 Hz
Repeating accuracy:	1 %
Response speed:	Infinite (dead time = zero)
Temperature range:	-20 to 60
Temperature sensitivity:	3×10^{-6} m/K
Stability, fatigue behaviour:	>300 million measuring cycles without degradation of metrological properties
Electromagnetic compatibility of the Optical part:	Insensitive and neutral
Service life:	Ca. 100 years
Splicebox:	Dimensions [L x D x H] : [100 x 40 x 15] mm Material : Aluminium. Protection : IP67

Mini-station

Station Box :	Dimensions : [230 x 40 x 60] mm Weight : 600 g Material : Anodized aluminium Protection : IP 67
EMC :	IOS qualification « Industrial and Residential equipments ».
Radio link :	Utilization of the ISM bands (*): 433,92 MHz/ 868 MHz/ 915 MHz (*) Industrial, Scientific and Medical.
European Norm : (Incl. Russia and Africa)	ETSI EN 300-220
American Norm : (North & South)	(FCC) CFR 47 Part 15
Transmission Power :	10 mW as antenna output
Reception Sensitivity :	-100 dBm
Power :	Special battery integrated to the box lid of the Station Box,
Autonomy :	5 years (under utilization conditions).
Serial Mounting with OSMOS BUS : (Available in end of 2012)	Up to 125 LIRIS per line, communication and supply of each stations every 1 km maximum. For important lengths if OSMOS BUS and/or important numbers of serial LIRIS, please contact us

Storage

In Blue configuration

Dynamic storage capacity : 12 minutes with 50 Hz or ~170 events of 5 seconds.

In Blue configuration

Static storage capacity : 6 months, with 1 recording per hour.

Trigger Types : Static and dynamic

Radio modem

Power supply :	Via USB
Communication Port :	USB ou RS 232
Antenna connection :	Type mini SMA
Transmission power :	10 mW
Receive sensitivity :	-100 dBm
EMC :	IOS qualification « Industrial and Residential equipments ».

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