

OFFERTA: #22B94MI

Vostro contatto:

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03 Ottobre 2014

Gentile Ing. Comolli,

Desidero, con la presente, attualizzare l'offerta LUNA Technologies di cui ci si tratteneva.

ITEM	QTY	MODEL	DESCRIPTION	PRICE EURO
#1	1	ODISI B 4.0	OPTICAL DISTRIBUTED SENSOR INTERROGATOR Provides one or more specific configurations and includes a 50 meter stand-off of the measurement device. Includes already one configuration described in Item #5 to #8	
#2	1	DS06001	ODISI accessory KIT	
#3	1	DS01001-5	Controller: Tower PC with CUDA Processor and LCD monitor	
#4	1	DS01002-4	Controller Power supply KIT for Region Europe	
#5	1	DS06017	Option CONFIGURATION 2 : 23.8 Hz data logging rate, 10 meter measurement length, 1.25 mm resolution	
#6	1	DS06018	Option CONFIGURATION 3 : 250 Hz data logging rate, 2 meter measurement length, 5 mm resolution	



#7	1	DS06022	Option CONFIGURATION 4 : 50 Hz data logging rate, 20 meter measurement length, 5 mm resolution	
#8	1	DS06016	Option Software for Creating and Keying Custom Sensors for use with ODiSI-B	
#9	1	DS01020	Option 16-channel Analog Output	
#10	1	DS01014	Option Hard-shell case with wheels and factory cut foam insert	
#11	1	DSS+T11	Option Set of : 5x STRAIN sensors 1 m, LC/APC, End Term.and 5x TEMPERATURE Sensor with Teflon Sleeving, 1 m, LC/APC, End Term.	
#12	1		TOTALE Item #1 a #11, SCONTO INCLUSO :	65 000

#### In opzione:

#13	1	DSEW01000	Option 24 month Warranty Starting from date of delivery. To be taken at purchase order	3 500
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### 1 \_ Condizioni di vendita :

\* Prezzi sono in EURO tasse escluse – IVA di 20 % da aggiungere.

\* Tempi di Consegna 6 a 10 settimane, fuori periodo di chiusura annuale

Garanzia
 12 mesi dalla data di consegna

\* Paese di origine USA

Pagamenti 30 giorni Data di Fattura.

Validita dell'offerta
 30 Novembre 2014

\* Trasporto CIF Milano



#### Recapiti DIMIONE Systems:

IVA: FR52 802 983 635 RCS d'EVRY 802 983 635 SIRET: 802 983 635 00011

Indirizzo: 1 Avenue du Général GOUTTIERE, 91800, BRUNOY, France

#### Dati BANCARI:

codice banca : 10207 sportello : 00101

conto: 21218945156

chiave: 43

Banque Populaire Rives de PARIS, agence de Quincy (00101)

IBAN: FR76 1020 7001 0121 2189 4515 643

codice Swift o BIC: CCBPFRPPMTG



# OPTICAL DISTRIBUTED SENSOR INTERROGATOR Model ODiSI-B 4.0



The Luna ODiSI-B delivers high speed, fully distributed strain and temperature measurements with millimeter spatial resolution.

#### **KEY FEATURES AND PRODUCT HIGHLIGHTS**

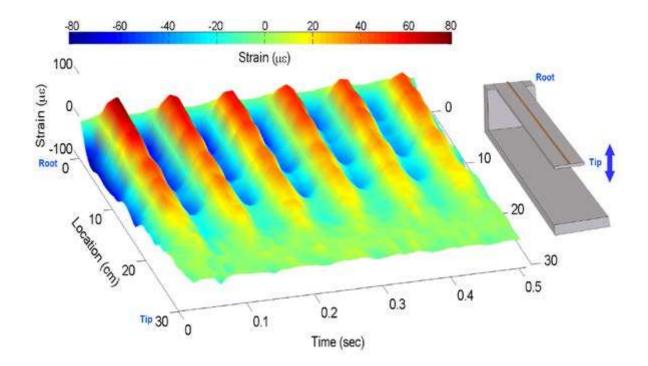
- · Industry-leading combination of measurement speed, range and repeatability with extraordinary spatial resolution
  - □ 23.8-250 Hz acquisition over entire fiber
  - ☐ Up to 30 Hz active display over 1 meter
  - ☐ Up to 20 meter sensing range
  - ☐ Measurement ranges of ± 10,000 µStrain, -268 to 900 °C
  - □ Repeatability of ± 5 µStrain, ± 0.4 °C
  - ☐ As small as 1.28 mm spatial resolution
- Inexpensive optical fiber sensors
- Thousands of sensing locations using a single optical fiber
- Interrogation of entire fiber and all sensing locations with a single scan
- Characterization of both temperature and strain at different points along a single fiber sensor

The Luna ODiSI-B saves time and cost, while adding new capability to sensing measurements with its unprecedented combination of high density sensing and dynamic acquisition over an optical fiber sensor. The ODiSI-B interrogates hundreds of sensing locations per meter on a single optical fiber simultaneously at a rate of up to 250 Hz. Reduce cost and better characterize your system by instrumenting many sensing locations with an unaltered, inexpensive optical fiber. With up to 20 meters maximum sensing length and down to 1.28 mm spatial resolution, the ODiSI-B is the paramount tool for your strain and temperature sensing applications.



#### **APPLICATIONS**

- · Load, fatigue, and mechanical testing
- · Composite manufacturing, engineering, and design verification
- · Embedded sensing
- · Model and simulation validation
- Thermal profile measurement
- · Structural Health Monitoring



The ODiSI-B recording the time response of the strain of a cantilever beam oscillating at its natural frequency. An optical fiber was bonded to the top surface. The system acquired distributed strain at 100 Hz with 2.56 mm sensor spacing.

PARAMETER			CIFICATION		UNITS			
Performance								
Standoff					meters			
Wavelength Accuracy1,2					pm			
Strain Range3			000		μStrain			
Temperature Range4,5			to 900		°C			
Mode of Operation 6 Standard		1	High-Speed	High-Resolution	Extended Length			
Maximum sensing Length	aximum sensing Length 10		2	10	20	meters		
Acquisition Rate 100			250	23.8	50	Hz		



Sensor Spacing	2.56	2.56		0.64	2.56	mm		
Gage Length	5.12	5.12		1.28	5.12	mm		
Strain Repeatability	±5	± 5		± 20	± 10	μStrain		
(Single-scan)								
Temperature	± 0.4	± 0.4		± 1.6	± 0.8	°C		
Repeatability								
(Single-scan)								
Electrical Trigger								
Acquisition TTL compatible								
Event				TTL compatible				
Physical								
Dimensions 14.42 x 13.60			x 6.55		in			
Weight 17.1					lb			
Power Consumption				W				

- 1 Calibration is performed internally using a NIST-traceable HCN gas cell.
- 2 Temperature and strain accuracies from spectral shift of Rayleigh scatter are 0.15 °C and 1.25  $\mu$ Strain, calculated using the default conversion coefficients 1 GHz = 0.8 °C = 6.58  $\mu$ Strain [Othonos and K Kalli, Fiber Bragg Gratings (Artech House, Boston, 1999)].
- 3 Based on an effective spectral range of +/-12000 pm.
- 4 Based on realistic physical limitations of typical optical fiber as observed by Luna. Actual performance range will depend on sensor type, coating, and bonding adhesive used in application.
- 5 Luna's standard temperature sensors are polyimide coated, low bend loss fiber and operate in a temperature range of -50 to 200 °C. Please contact Luna for information regarding non-standard sensors.
- 6 Base configuration includes one mode of operation. Additional modes are upgrade options.

### **CLASS 1 LASER PRODUCT**

Designs and specifications are subject to change without notice.

Please refer to www.lunainc.com to obtain the most current production information



#### **Touch to Locate**



Create points, segments, and/or point groups Automated peak detection with hot/cold touch Save points to use with other features

### Measurement vs. Length





#### Measurement vs. Time (formerly known as 1D Display)



Manually create custom points or segments

Load saved touch-to-locate points

View points along the sensor vs. time

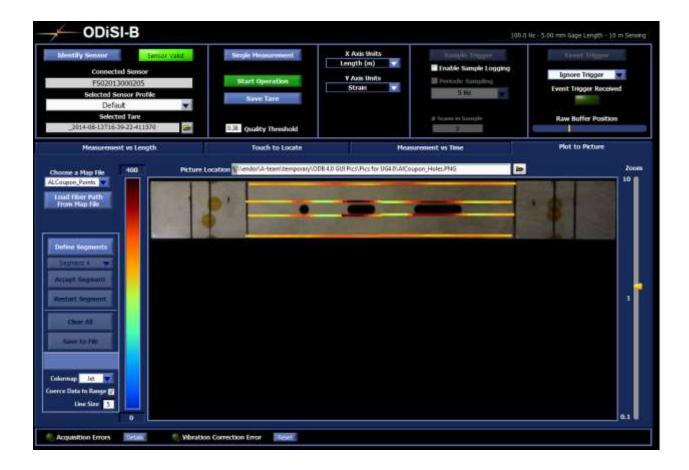
View all points within your segment vs. time

Data Streaming: Save at user specified acquisition rate (limited by screen update rate) directly to .txt

Integrates with Touch to Locate



Plot to Picture (formerly known as 2D Display)



Load your picture

Load your touch-to-locate segments

Draw your fiber path

View your measurement data plotted on your picture in real time

Integrates with Touch to Locate

#### **Data Streaming**

Log directly to text file at max screen update rate

Select max file size limit

### Post Processor with full feature integration

Map File Viewer

Measurement vs. Time

Plot to Picture

Note: This is separate interface and utility



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- 17. CONFIDENTIALITY. Each party shall treat all information received from the other party marked "Confidential" or reasonably obvious as to be confidential as it would treat its own confidential information.
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The Terms in place at the time of this agreement govern this agreement.

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