

**EXTREME
RUGGED**

**inclinometers
& pendulums**



DIGITAL MEMS INCLINOMETER SYSTEM

MEMS digital inclinometer probe represents the most advanced evolution of Sisgeo inclinometer system.

Inclinometer probe is manufactured from AISI 316 stainless steel in one-piece in order to guarantee stability and waterproofing for long term operation.

On board advanced electronics (24 bit A/D converter for each axis) in combination with Archimede readout ensure accurate and precise measurements, minimizing troubles during operation.

The digital inclinometer system includes the biaxial MEMS probe, operating cable mounted on reel and the rugged Archimede readout.

**Externe rugged
and shock resistant**

High accuracy readings

On-board calibration

Waterproof MIL connectors

Light cable

Sunlight reliable display

Graph reports on site

Smartphone compatible



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ARCHIMEDE READOUT

ARCHIMEDE readout is a portable datalogger specifically designed for massive campaigns of inclinometer measurements in heavy operating conditions.

Archimede is a battery operated datalogger with a large graphic color backlight display housed in a crushproof, water-resistant plastic case. A convenient remote hand-switch allows one-man surveys.

Archimede could be supplied with a Bluetooth interface in order to sent stored data to the office by means of smartphone.

SMART Manager Suite is the software package designed by Sisseo that permits to manage Archimede directly on you PC, automatically update firmware and software and obtain on-line technical assistance.

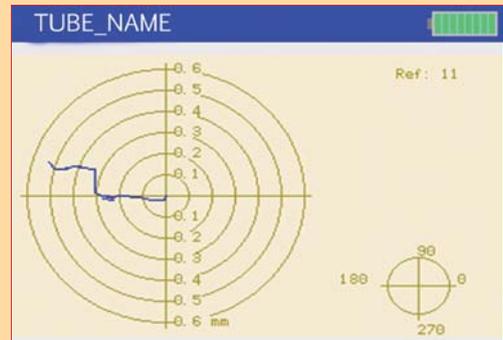
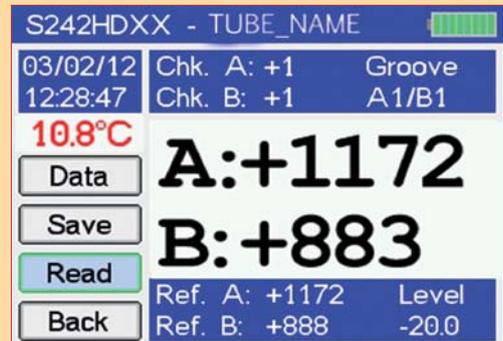


TECHNICAL SPECIFICATIONS

DIGITAL PROBE PERFORMANCES (with Archimede datalogger)

Model	OS242DV3000	OS241DH3000
Applications	vertical casing	horizontal casing
Technology	digitalized MEMS inclinometer	
Sensor type	biaxial	uniaxial
Measuring range	±30°	
Signal output	opto-isolated RS485 (half duplex)	
Protocol	RTU MODBUS	
A/D converter	sigma-delta 24 bit for each axis	
Resolution	0.01 mm (0.0013°)	
Sensor linearity ¹	better than ±0.03% FS	
Repeatability	±0.005% FS (±0.0015°)	
Temp. operating range	-30°C to +60°C	
Thermal factor sensitivity	self-compensated	
Shock resistance	20000 g	
Material	stainless steel	
Diameter	28 mm	
Length (without connector)	750 mm	845 mm
Wheel carriage	pair of wheels mounted on long-life sealed ball bearings	
Wheel diameter	32 mm	
Distance between wheel axis	500 mm	
Weight	2.0 kg	

¹ Calculated on calibration desk after ten complete cycle calibration testing



INCLINOMETER SYSTEM PERFORMANCES (with ±30° MEMS probe and ARCHIMEDE readout)

Readout value	20.000 sin alpha (other on request)	It is the amplified value of angle that can be read on the digital readout, expressed in sin alpha
Repeatability	±0.02mm x 500mm	It is the difference between two or more repeated readings taken at the same inclination
Reading resolution	0.01mm x 500mm	It is the smallest increment in angle resolution change that can be read on the readout display as 1 digit
System accuracy	± 2.00mm x 25 m	It is the system accuracy attainable during the measurements in field. It is expressed as lateral deviation over a length of 25 m of casing, correctly installed (vertical deviation within 3°)