



SIRRAH®

Sway & Skew Sensor for crane hoisting system



PRESENTATION

SIRRAH® is a sensor giving angle positions of a hoisting system fitted with one or several infrared transmitters : to use for sway and skew measurement.

The associated infrared beacon transmits I.R. modulated energy waves, which enables a good measure whatever the distance. The safety measure is total.

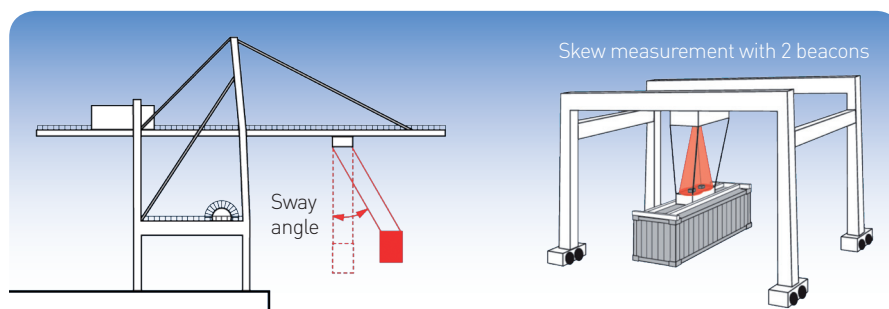
Three utilisation modes are possible :

- Functioning with an active beacon : sway measurement.
- Functioning with two active beacons : sway and skew measurement.
- Functioning with three active beacons : sway and skew measurement with a high accuracy.

SIRRAH® is improved to work on:

- overhead travelling cranes of small height: sway measuring and load positioning on ground (versions SI08 & SI10)
 - outside handling applications on container quay crane (versions SI19 & SI20).
- It is waterproof and insensitive to the ambient infrared.

It is supplied factory-integrated in protective housing including connection box (power supply and communication).

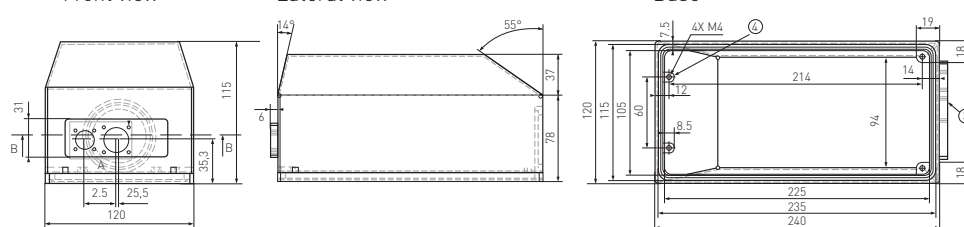


Sensor

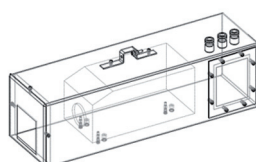
Front view

Lateral view

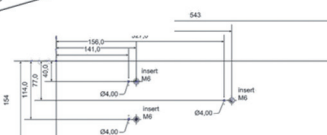
Base



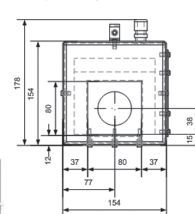
Protective housing



Bottom view



Front view



All dimensions are in millimeters

ORDERING INFORMATION

SI08 Sensor +/-7° (220VAC,RS422)
SI08-P Sensor +/-7° (220VAC, Profibus)

SI10 Sensor +/-6° (220VAC,RS422)
SI10-P Sensor +/-6° (220VAC, Profibus)

SI19 Sensor +/-9° (220VAC,RS422)
SI19-P Sensor +/-9° (220VAC, Profibus)

SI20 Sensor +/-8,8° (220VAC,RS422)
SI20-P Sensor +/-8,8° (220VAC, Profibus)

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SPECIFICATIONS

REF	SI08	SI10	SI19	SI20
Detector type	Optical			
Infrared light source	880 nm LEDs beacon			
Working modes	Mode 1 : mono-beacon for sway measurement Mode 6 : bi-beacon for sway and skew measurement Mode 7 : tri-beacon for sway and skew measurement ; high accuracy			
Numerical Resolution	1/1000°			
Measurement frequency	200 Hz in mode 1 ; 66Hz in mode 6 ; 50 Hz in mode 7			
Output frequency	Programmable by the outside calculator			
Average of measures	Programmable by the outside calculator			
Working temperature range	-20°C to +50°C			
Storage temperature range	-40°C to +70°C			
Protection rating	IP 66			
Weight	2,6 kg			
Display	One green LED for on service One red LED for out off service			
Serial line communication	RS422 PROFIBUS			



Non contractual document. All specifications subject to change without notice.

	SI08			SI10			SI19			SI20		
View angle	±7°			±6°			±9°			±8,8°		
Associated beacon	BMU-01A BMU-02A			BMU-01A BMU-02A BMU-05A			BMU-01A BMU-02A			BMU-01A BMU-02A		
Max. number of associated beacons	3			3			1			3		
Power supply	110-220 VAC			110-220 VAC			110-220 VAC			110-220 VAC		
Working range	Up to 25 m			Up to 35 m			Up to 60 m			Up to 60 m		
	Degrees	At 5m in mm	At 35m in mm	Degrees	At 5m in mm	At 35m in mm	Degrees	At 5m in mm	At 35m in mm	Degrees	At 5m in mm	At 35m in mm
Sensor resolution at 50 Hz	20/1000	1,8	9	5/1000	0,5	3	10/1000	2	10	5/1000	0,5	3
Sensor Resolution at 2 Hz	4/1000	0,5	2,5	1/1000	0,1	<1	3/1000	1	5	1/1000	0,1	1
Long distance non linearity												
*At the sensor center		6	30		1	3		4	20		2	10
*On 50% of the field		20	120		3	20		25	120		12	60

