



Irys

Car Bodywork Contactless Coatings Inspection

Datasheet v1.0



Measurable configurations

Substrates	Ferrous and non-ferrous metals, fiber composite materials (CFRP/GFRP) and polymeric materials (thermoplastic materials, ...)
Types of paint	Metallic paints, non-metallic paints, two-phase paints, trilayer paints and paints with magnetic particles among other types of paints
Measurable areas	Flat and curved surfaces (bending radii up to 100mm, concave and convex).
Wetness condition	Dry, wet* and cured paint applications

*under certain conditions

Measurement parameters - Performance of the system


Thickness Accuracy*	~1 µm
Minimum Thickness***	10 µm
Number of layers**	Up to 5 layers
Sampled Area	4-mm spot size
Measurement Time per point***	Between 0.5 and 5 seconds
Measurement Head distance	Optimum working distance to the painted surface: 100 mm (± 20 mm). Further distances are possible if required.
Positioning Accuracy*	Robot-mounted sensor header positions with an error<0.2°. Normal incidence to the painted surface
Factory-environment proof	<ul style="list-style-type: none"> → Patented vibration compensation system that allows more accurate measurements → System compatible with typical factory ingress protection (IP54) → No need for recalibration stops

* standard values; dependent on paint type and its properties

**dependent on paint type and paint layer thickness

***dependent on paint type and number of layers

Hardware & connectivity

Dimensions (L×W×H)	<p>Sensor head: 380x300x105mm Supply unit: 61 × 58.1 × 33.2 cm</p> 
Approx. weight	<p>Sensor head: 5kg Supply unit: 46 kg</p>
Extension	Separation Sensor head and Supply unit: up to 15m
Communications	<p>Ethernet connection to communicate the system with PLCs in the factory using TCP/IP sockets. Remote control available for SW and FW updates</p>
Power requirements	110 / 240 VAC, 4 A-line power, 50-60 Hz
Operating temperature & altitude	20 °C (68 °F) – 27 °C (80,6 °F). Altitude up to 2000m
Operating humidity	<p>Relative humidity of less than 75%. Non-explosive and non-condensing atmosphere</p>

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