**AICON**
3D Systems

# MoveInspect XR8

## Hardware

| | |
|---|---|
| Sensor resolution | Two 8 megapixels XR cameras |
| Protection class | IP51 |
| Illumination | Internal infrared illuminations, independent from environmental lighting |
| Operating temperature | + 5°C to + 45°C room temperature (without condensation) |
| Operating humidity | 10 - 90 % |
| Sensor size | 1,200 mm x 240 mm x 130 mm |
| Sensor weight | 11.5 kg |
| MI.Probe weight without Extender | 850 g |
| Control unit | Syncbox for up to 2 XR8 sensors (cascadable), external synchronization, power supply 90 - 240 V or 12 V (on request) |
| Processing unit | High-end notebook (industrial pc possible) with Microsoft® Windows® 7 (64 Bit) and Microsoft® Windows® 10 (64 Bit) |
| Accessories | Transportation box, MI.Probe with equipment and transportation box, calibration tool, tripod with bag, coded and uncoded targets |
| Warm-up time | Highest accuracy after 30 minutes at the latest |

### MoveInspect XR8 warm-up curve



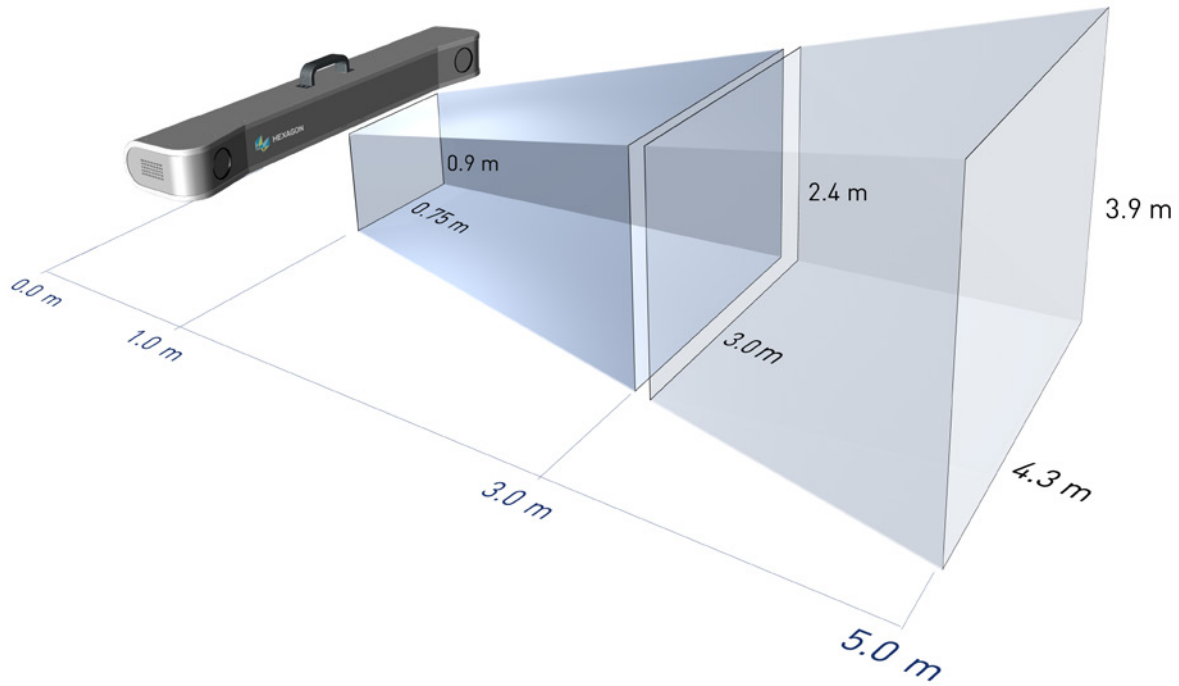*X-axis: Storage temperature [°C], Y-axis: Warm-up time [min]*
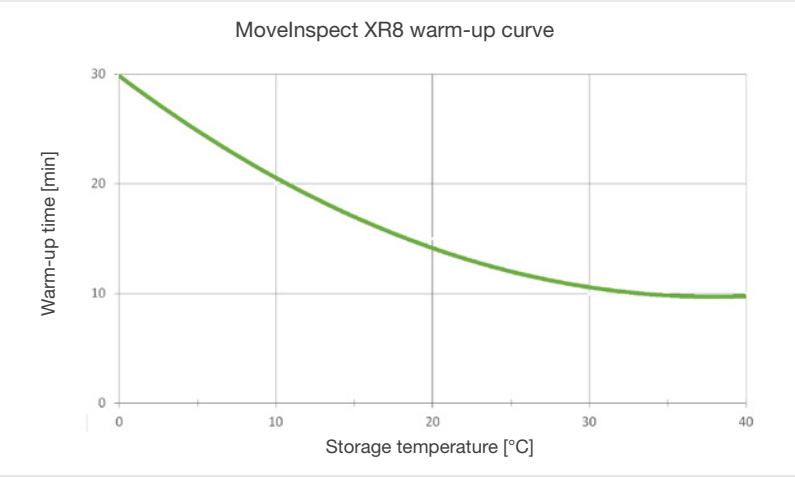
## Software

| | |
|---|---|
| Interfaces | Interfaces i.a. to 3D inspection software like PolyWorks®, Spatial Analyzer®, PC-DMIS (in preparation), Metrolog, PowerInspect, Geomagic® Control™, BuildIt<br><br>Realtime interface for transfer of 3D and 6DoF coordinates |
| Measuring modes | Probing, tracking |

| Accuracy | 2D [b] | 3D [c] |
|---|---|---|
| Specified range [a] | 1 - 3 m, at measuring volume of 6.7 m³ | |
| Extended range | 3 - 5 m, at measuring volume of 23.3 m³ | |
| Single point accurancy 2σ [a] | 5 µm + 5 µm/m [b] | 5 µm + 20 µm/m [c] |
| Volumetric accuracy 2σ [a] | 20 µm + 20 µm/m [b] | 20 µm + 30 µm/m [c] |

Subject to change without notice. Version: 03/2017

## ASME B89.4.22-2004
Two main parameters are distinguished: single point accuracy (repeatability) and volumetric accuracy (absolute length deviation on an artifact). The indicated numbers are equal for tracking and probing within the specified range A-B.

## Single point measurement / precision
This value represents a measure of the system's repeatability: single points are measured (whether in tracking or probing) within the volume based of 50 measurements of identical target and the maximum deviation from the mean is given

## Volumetric accuracy
This value represents the absolute accuracy of the system. The artifact, which is realized as a DAkkS calibrated scale bar, is placed inside the measurement volume at discrete positions, 10 Positions of the artifact (reference scale) in 2 distances from camera beam. The maximum deviation against the calibrated length of the artifact is then a measure of the volumetric accuracy (length deviation).

## Certified and extended range:
Numbers indicated in the specification are only valid for the specified range.

[a] Test procedure following ASME B89.4.22-2004 with 500 mm artifact
[b] In plane, parallel to sensor
[c] In depth