



FARO® 8-Axis Edge FaroArm® & ScanArm

Taking your FARO Edge FaroArm measurement speed and ergonomics to a greater level

The FARO® 8-Axis Edge system combines the portable Edge FaroArm (or ScanArm) with a functionally integrated, yet physically separate, 8th axis.

The 8th axis is a complete rotational axis that provides a natural extension of FaroArm capability. It plugs directly into the Edge FaroArm and results in a seamlessly integrated, high-accuracy additional axis.

Parts can be rotated in real-time relative to the Arm – meaning no difficult reaching around the object and no need to move the Arm to different locations during the measurement process.

This results in improved measuring speed, reach, and user-friendliness, offering an easy-to-use solution that allows users to focus on the actual measurement and not on the measurement processes.



Benefits

High Measurement Speed

Capturing of necessary features with only small movements of the Arm / ScanArm and reduced need to reposition the device around large objects results in up to 40% reduction in the time it takes to scan a part or assembly.

Extended Measurement Volume

A single device set-up allows users to reach and digitize features that would normally require multiple device locations, or a longer-reach arm.

Ultimate in Ergonomics

Limiting the amount of movements of the operator around the part or the assembly allows complex and large objects to be easily and quickly digitized. The operator can focus on the measurement of the part with no worries about uncomfortably reaching around the part or assembly.

Operator Effectiveness

The operator is now able to focus with minimal distraction and effort on the measurement of the part since the part is seamlessly rotated to the optimum orientation.

Workspace Optimization

The 8-Axis Edge allows complete measurement and scanning activities to be performed within a minimal footprint. Limited space required for device placement ensures optimized usage of the available work area.

Performance Specifications

Contact

Measurement Range	Repeatability ¹	Accuracy ²	Accuracy ³	FaroArm Weight
	7 Axis	7 Axis	8-Axis System	7 Axis
1.8m 6ft	0.024mm 0.0009in	±0.034mm ±0.0013in	±0.034mm ±0.0013in	10.7kg 23.6lb
2.7m 9ft	0.029mm 0.0011in	±0.041mm ±0.0016in	±0.041mm ±0.0016in	10.9kg 24.1lb
3.7m 12ft	0.064mm 0.0025in	±0.091mm ±0.0035in	±0.091mm ±0.0035in	11.3kg 24.9lb

FaroArm test methods - (Test methods are a subset of those given in the B89.4.22 standard.)

¹Single point articulation performance test (Max-Min)/2: The probe of the FaroArm is placed within a conical socket, and individual points are measured from multiple approach directions as specified by ASME the B89.4.22-2004 standard. Each individual point measurement is analyzed as a range of deviations in X, Y, Z. ²Volumetric maximum deviation: Determined by using 20 traceable lengths measured at locations and orientations throughout the working volume of the FaroArm as specified by the ASME B89.4.22-2004 standard. This test is a method for determining articulated arm accuracy. Accuracy and repeatability specified at Full Field of View (FOV); High Accuracy mode specified at reduced FOV. ³System accuracy: determined by probing a single sphere from multiple orientations and represents the maximum deviation of sphere position.

Laser Line Probe Specifications

Accuracy:	±25µm (±0.001")
Repeatability:	25µm, 2σ (0.001")
Stand-off:	115mm (4.5")
Depth of field:	115mm (4.5")
Effective scan width:	Near field 80mm (3.1") Far field 150mm (5.9")
Points per line:	2,000 points/line
Minimum point spacing:	40µm, (0.0015")
Scan rate:	280 frames/second, 280fps x 2,000 points/line = 560,000 points/sec
Laser:	Class 2M
Weight:	485g (1.1lbs.)

Accuracy and repeatability specified at Full Field of View (FOV); High Accuracy mode specified at reduced FOV.



Typical Industries

Aerospace | Automotive | Metal Fabrication | Molding/Tool & Die | Woodworking | Plastics | Toy Manufacturing

Applications

Alignment | Dimensional Analysis | CAD-Based Inspection | First Article Inspection | Incoming Inspection | In-Process Inspection | On-Machine Inspection | Part Inspection | Final Inspection | Part Certification | Prototype Part Scanning | Reverse Engineering | Tool Building & Setup | Mold and Die Inspection

Hardware Specifications

Operating temp range:	10°C - 40°C (50°F - 104°F)
Temperature rate:	13°C/5min. (5.4°F/5min.)
Operating humidity range:	95%, non-condensing
Power supply:	Universal worldwide voltage 100-240VAC 47/63Hz

Certifications: Meets OSHA requirements, NRTL Listed (USA and Canada), Complies with 47 CFR § 15 and 21 CFR § 1040.10. Complies with the following EC Directives: 2014/30/EU - EMC; 1999/5/EC - R&TTE; 2011/65/EU - RoHS2; 2012/19/EU - WEEE. 2006/66/EC - Batteries and Accumulators; 2009/125/EC - Ecodesign requirement. Conforms to the following standards: EN 50581; EN 61010-1/CSA-C22.2 No. 61010-1; EN 61326-1; EN 60825-1; ANSI Z136.1; IEEE 802.11 b/g; IC RSS-210; ETSI EN 300 328 and ETSI EN 301 489-1 (WLAN and Bluetooth); UN/DOT 38.3; Japanese Ordinance of MPT No. 37, 1981 (MIC classification WW). Patents: 5402582, 5611147, 5794356, 6366831, 6606539, 6904691, 6925722, 6935036, 6973734, 6988322, 7017275, 7032321, 7043847, 7051450, 7069664, 7269910, 7735234, 7784194, 7804602, 7881896, RE42055, RE42082

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Contract Holder