



# Datasheet

## FREEDOM ARM

6-axis portable CMM for touch probes

- 6-axis portable arm includes:
- mounting ring with base plate
  - protective dust cover
  - transit storage case
  - calibration bar (SELECT models only)
  - ISO 10360-12 calibration certificate
  - 15 months warranty
  - USB interface for tactile probes
  - wireless interface for tactile probes
  - rechargeable battery
  - accessory kit includes:
    - $\varnothing$ 3, 5, 15mm tactile probes
    - calibration sphere
    - accessory case



Model shown:  
FREEDOM select

### TECHNICAL DATA | Portable Arm

	Max. Reach	Weight <sup>2</sup>	Length E UNI	TOUCH PROBE ACCURACY <sup>1</sup>		
				Size P SIZE	Position L DIA	Form P FORM
<b>FREEDOM classic 20</b>	2.23 (87.8)	7.8 [17.2]	0.040 (0.0016)	0.013 (0.0005)	0.042 (0.0017)	0.026 (0.0010)
<b>FREEDOM classic 25</b>	2.73 (107.5)	8.1 [17.9]	0.046 (0.0018)	0.020 (0.0008)	0.053 (0.0021)	0.038 (0.0015)
<b>FREEDOM classic 30</b>	3.23 (127.2)	8.4 [18.5]	0.067 (0.0026)	0.029 (0.0011)	0.071 (0.0028)	0.054 (0.0021)
<b>FREEDOM classic 35</b>	3.73 (146.9)	8.7 [19.2]	0.085 (0.0033)	0.038 (0.0015)	0.090 (0.0035)	0.063 (0.0025)
<b>FREEDOM classic 40</b>	4.23 (166.5)	9.0 [19.8]	0.100 (0.0039)	0.046 (0.0018)	0.105 (0.0041)	0.077 (0.0030)
<b>FREEDOM classic 45</b>	4.73 (186.2)	9.3 [20.5]	0.120 (0.0047)	0.052 (0.0020)	0.110 (0.0043)	0.086 (0.0034)
<b>FREEDOM select 20</b>	2.23 (87.8)	8.0 [17.6]	0.023 (0.0009)	0.008 (0.0003)	0.030 (0.0012)	0.017 (0.0007)
<b>FREEDOM select 25</b>	2.73 (107.5)	8.3 [18.3]	0.028 (0.0011)	0.010 (0.0004)	0.035 (0.0014)	0.020 (0.0008)
<b>FREEDOM select 30</b>	3.23 (127.2)	8.6 [19.0]	0.042 (0.0017)	0.015 (0.0006)	0.053 (0.0021)	0.030 (0.0012)
<b>FREEDOM select 35</b>	3.73 (146.9)	8.9 [19.6]	0.055 (0.0022)	0.020 (0.0008)	0.069 (0.0027)	0.040 (0.0016)
<b>FREEDOM select 40</b>	4.23 (166.5)	9.2 [20.3]	0.067 (0.0026)	0.024 (0.0009)	0.085 (0.0033)	0.045 (0.0018)
<b>FREEDOM select 45</b>	4.73 (186.2)	9.5 [20.9]	0.080 (0.0031)	0.028 (0.0011)	0.102 (0.0040)	0.050 (0.0020)

mm (inch) kg (lbs)

## ENVIRONMENTAL REQUIREMENTS

Operating temperature	+5°C to +40°C
Storage temperature	-30°C to +70°C
Operating elevation	2000m
Relative humidity	10% to 90% non-condensing

## SUPPLY REQUIREMENTS

Power supply	110-240V single phase
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## CONFORMITY

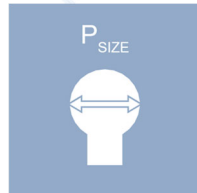
Portable arm	Probing accuracy certified according to ISO 10360-12
	CE – FCC - IC

# TECHNICAL DATA | Accuracy Verification

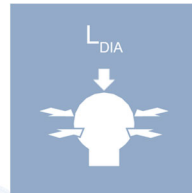
FREEDOM arms are delivered fully traceable to internationally recognised accuracy certification ISO 10360-12 for the probing accuracy of portable measuring arms, giving users complete confidence in the reliability of their measurements.



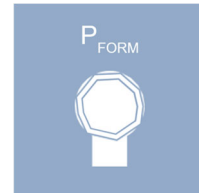
The E UN<sub>I</sub> value is the maximum permissible error for unidirectional length measurements. It therefore most closely reflects most measurement needs.



The P SIZE value is the maximum permissible error for measuring the diameter of a sphere. It therefore signifies the accuracy of feature measurements.



The L DIA value is the maximum permissible error for the articulation location. It therefore represents the repeatability of the arm.



The P FORM value is the maximum permissible error for the form of a sphere. This is a value that defines the dispersion accuracy of the arm.

<sup>1</sup> Touch probe accuracy specification.

E UN<sub>I</sub> Maximum permissible longitudinal error of measurement – according to ISO 10360-12:2016  
 P SIZE Maximum permissible probe deviation, size – according to ISO 10360-12:2016  
 L DIA Maximum permissible probe deviation, position – according to ISO 10360-12:2016  
 P FORM Maximum permissible probe deviation, shape – according to ISO 10360-12:2016

<sup>2</sup> Arm weight without laser scanner attached.