Data Sheet

32-1163 REV 0325

Coefficient of Friction Gauge M5-2-COF

Page 1 of 2



 MESUR[®] Lite data acquisition software is included with the M5-2-COF

felp M A (on Settin		5.66	
	Reading	lord	J.OC	16+ 24
	1	1.14	0	
	2	2.04	0.051	Acquiring Data 🕘
	3	2.94	0.101	
	4	3.8	0.152	
	5	4.64	0.205	START
	6	5.04	0.25	
	7	4.82	0.303	
	8	4.86	0.352	
	9	4,74	0.402	
	10	4.96	0.456	STOP
	11	5.32	0.501	
	12	5.52	0.554	
	13	5,78	0.602	
	14	5.9	0.651	
	15	5.86	0.701	
	16	57	0.752	
	17	5.58	0.807	
	18	5.44	0.851	·
		Export to Exce		Download Gauge Memory

The M5-2-COF coefficient of friction (COF) gauge is an integral part of a COF testing system, typically including a motorized test stand and COF fixture. With a capacity of 2 lbF [10 N], the gauge can be used to measure friction for a wide range of materials, ideal for conformance to ASTM D1894 and other relevant standards. Static and kinetic coefficients are displayed on the backlit LCD, and are calculated from a user-programmable sled weight.

Data can be transferred to a PC or data collectors via USB, RS-232, Mitutoyo (Digimatic), or analog outputs. On-board memory for up to 1,000 readings is included, as are statistical calculations with output to a PC. Integrated set points with indicators and outputs are ideal for pass-fail testing and for triggering external devices such as an alarm, relay, or test stand. Configurable password protects against unauthorized changes to settings.

The M5-2-COF may also be used for a number of common tension and compression testing applications. The gauge is based on Mark-10's Series 5 advanced digital force gauges, and includes the series' full set of functions

and settings.

M5-2-COF The includes MESUR®Lite data acquisition software. **MESUR®** Lite tabulates continuous or single point data. Data saved in the gauge's memory can also be downloaded in bulk. One-click export to Excel easily allows for further data manipulation.



▲ Shown with an ESM303 test stand and G1086 COF fixture

Features

- Calculates static and kinetic coefficients of friction
- Configurable sled weight (100 1000 g)
- USB, RS-232, Mitutoyo, and analog outputs
- 1,000-point data memory with statistics and outputs
- Programmable set points, with indicators and outputs
- Live load bar graph with set point markers
- Configurable audio alarms and key tones
- Password protection, configurable for individual keys and calibration





Mark-10 Corporation <a>

 www.mark-10.com
 info@mark-10.com

 Toll-free:
 888-MARK-TEN
 Tel: 631-842-9200
 Fax: 631-842-9201



Specifications subject to change without prior notice

Coefficient of Friction Gauge M5-2-COF

32-1163 REV 0325

Configurable Sled Weight



The COF is calculated based on the sled weight, adjustable from 100 to 1,000 g, to conform to various standards. A password can be set to protect settings from unauthorized changes.

Specifications

Capacity x Resolution:	5 x 0.001 COF*, 2 x 0.0005 lbF, 32 x 0.01 ozF, 1 x 0.0002 kgF, 1000 x 0.2 gF, 10 x 0.002 N
Accuracy:	±0.1% of full scale
Sampling Rate:	7,000 Hz
Power:	AC or rechargeable battery. Multi-step low battery indicator is displayed, gauge shuts off automatically when power is too low.
Battery life:	Backlight on / off: up to 7 / 24 hours of continuous use
Outputs:	 USB / RS-232: Configurable up to 115,200 baud. Includes Gauge Control Language 2 for full computer control. Mitutoyo (Digimatic): Serial BCD suitable for all Mitutoyo SPC-compatible devices. Analog: ±1 VDC, ±0.25% of full scale at capacity, General purpose: Three open drain outputs, one input. Set points: Three open drain lines.
Safe overload:	150% of full scale (display shows "OVER" at 110% and above)
Weight:	1.0 lb [0.45 kg]
Included items:	Carrying case with chisel, cone, V-groove, hook, flat, extension rod, universal voltage AC adapter, battery, quick-start guide, USB cable, and NIST-traceable certificate of calibration with data.
Environmental requirements:	40 - 100°F, max. 96% humidity, non-condensating
Warranty:	3 years (see individual statement for further details)

Thread

Dimensions in [mm]



Alternative AC Adapter Prongs





AC1121 The M5-2-COF includes a 110V AC adapter with US prong style. Select an alternative prong adapter (if required) from the table below.

Model	Description
AC1120	Prong for AC adapter, 220V EUR
AC1121	Prong for AC adapter, 220V UK
AC1122	Prong for AC adapter, 220V AUS

Mark-10 Corporation Www.mark-10.com info@mark-10.com Toll-free: 888-MARK-TEN 📕 Tel: 631-842-9200 📕 Fax: 631-842-9201



Specifications subject to change without prior notice

Page 2 of 2

* Depends on the sled weight. For a 200 g weight, the COF capacity is 5. COF resolution is fixed at 0.001.