Data Sheet Coefficient of Friction Gauge M5-2-COF

32-1163 REV 1



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 IbF [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 userprogrammable 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.

> in the gauge's memory can also be downloaded in bulk. One-click export to Excel

> easily allows for further data

manipulation.

Lo	oad				Units Total Readings
L	5.66			6	bF 24
8	leading	Load	Time (see	:.]	
E	1	1.14			
E.	2	2.04			Acquiring Data 🎱
1.	3	2.94			
I-	4	3.8			
Ŀ	5	4.64			START
Ŀ	6	5.04			
Ŀ	7	4.83			
Ŀ	8	4.86			
Ŀ	9	4.74			STOP
Ŀ	10	4.00			
Ŀ	12	5.52			
Ŀ	12	5.78			
E	14	5.5		-	
Ŀ	15	5.80			
Ŀ	16	52			
Ŀ	17	5.58			
E	18	5.44	0.851		
		Expor to Exc	t		Download Gauge Memory

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



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





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Shown with an ESM301 test stand and G1086 COF fixture



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Programmable 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.

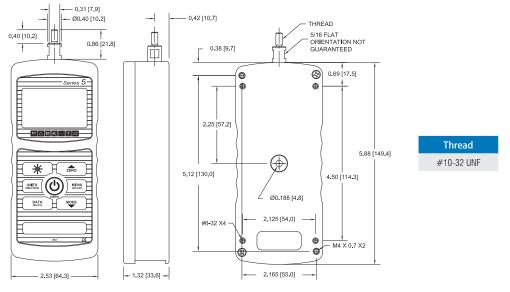
Specifications

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:	$\pm 0.1\%$ 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, resource CD (USB driver, MESUR™ Lite software, MESUR™gauge DEMO software, and user's guide), 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)				

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

Specify model M5-2-COFE for euro plug (220V), M5-2-COFU for UK plug (220V) or M5-2-COFA for Australian plug (220V).

Dimensions in [mm]





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