

PRODUCT BROCHURE

SAUTER FS 4-500

Date: 23.04.2025

ENGLISH



Premium force gauge with integrated load cell and connection possibility for up to 4 external load cells

CONTACT

KERN & SOHN GmbH
Ziegelei 1
72336 Balingen
Germany

Phone : +49 7433 9933-0
Fax : +49 7433 9933-149
Email : info@kern-sohn.com
Web : www.kern-sohn.com



Scan here for more
information

PRODUCT SHOWCASE



DESCRIPTION

- Use with integrated load cell

The SAUTER FS premium force gauge has an load measuring cell for tensile and compressive force applications. Either mobile for rapid testing or stationary integrated into a test stand or production line, the multifunction display allows all the values recorded to be read off at a glance in real time. Via the integrated interface, the data can be sent to a PC or laptop for further processing.

- Use with external load cells

The SAUTER FS premium force gauge is compatible with all SAUTER strain gauge measuring cells, see Measuring Cells. Up to 4 external measuring cells can be connected simultaneously. If an external measuring channel is used, the internal load cell is deactivated as long as an external load cell is connected.

- Measurement of forces in different tensile or compression directions possible with only one measuring device
- 3,5" touchscreen with touch pen
- Standard version with 4 measuring channels for external force sensors
- An internal load cell is possible (is deactivated if an external load cell is connected)
- Suitable for 4-wire and 6-wire sensors with strain gauges
- Two-point adjustment with weights or numerical adjustment possible
- The specific data of an external sensor are stored directly in the connector
- USB interface for data transfer and power supply as standard
- Internal device memory (16 GB)
- Adjustable SI units: kg, N, kN, mN, MN, Nm, kNm, mNm
- Tolerance function
- Track function for continuous measurement display
- Peak value measurement

- Mountable on all SAUTER test stands
- Supplied in a high-quality and robust system case (systainer® T-LOC) including plug-in power supply and USB cable type C
- Tip: Order the practical system case (systainer® T-LOC) for storing and transporting of accessories, clamps, sensors, etc. at the same time, SAUTER FS TKZ, see accessories

SPECIFICATIONS

Article codes, product groups & Status information

Model article-code	FS 4-500
Model-Serie	FS
Assortment	Sauter
Product Type	Force measurement
Product group	Digital force-measuring devices (external sensor)
Product usage type	Main article
EAN code (Model)	4045761237070
Customs tariff number	90248000

Technical data - Primary

Max. Force	500 N
Readability	0.1 N

Technical data - Construction

Dimension housing (W×D×H)	71×31×180 mm
Mounting thread	External thread M6

Technical data - Power supply

Power supply	Battery & Power supply
Battery type	Li-Ion

Operating time (Display off)	8 h
Operating time (Display on)	5 h
Mains adapter/adaptor included	EURO
Protection Class	no protection class

Technical data - Measuring system

Units	N
-------	---

Technical data - Functions

Statistic-Function	yes
Peak-Function	yes
Interface	USB-Device

Technical data - Packing & Shipping

Dimensions packaging (W×D×H)	280×185×90 mm
Gross weight	1.4 kg
Net weight	0.45 kg
Shipping method	Parcel service
UN number	Li-Ion, packed with device (UN 3481, Packing Instruction #7, Lithium ion batteries in compliance with Section II of PI 967)

Packaging component - 165 g
by weight - cardboard

Packaging component - 425 g
by weight - styrofoam

Delivery time 1 d

Technical data - Counting data

Memory yes

Optional Services

DAkkS calibration - 963-361
push/pull

DAkkS calibration - push 963-261
only

DAkkS calibration - pull 963-161
only

FUNCTIONS

Standard



Option



ACCESSORIES

Model	Description
CS 25-3P1	Measuring Cell SAUTER CS 25-3P1
CS 50-3Q1	Measuring Cell SAUTER CS 50-3Q1
CS 150-3P1	Measuring Cell SAUTER CS 150-3P1
CS 250-3P1	Measuring Cell SAUTER CS 250-3P1

Model	Description
CS 1000-3P1	Measuring Cell SAUTER CS 1000-3P1
CS 1500-3P1	Measuring Cell SAUTER CS 1500-3P1
CS 2500-3P1	Measuring Cell SAUTER CS 2500-3P1
CS 20000-3P1	Measuring Cell SAUTER CS 20000-3P1
CS 100-3Q1	Measuring Cell SAUTER CS 100-3Q1
CS 750-3Q1	Measuring Cell SAUTER CS 750-3Q1
CS 3000-3Q1	Measuring Cell SAUTER CS 3000-3Q1
CS 5000-3Q1	Measuring Cell SAUTER CS 5000-3Q1
CR 60-3P1	Measuring Cell SAUTER CR 60-3P1
CO 500-Y1	Measuring Cell SAUTER CO 500-Y1
AFM 06	Adapter KERN AFM 06
CO 2000-Y1	Measuring Cell SAUTER CO 2000-Y1
CS 50-3P2	Measuring Cell SAUTER CS 50-3P2
CS 500-3P2	Measuring Cell SAUTER CS 500-3P2
CS 20-Y1	Measuring Cell SAUTER CS 20-Y1
CO 10-Y4	Measuring Cell SAUTER CO 10-Y4
CS 2000-3P2	Measuring Cell SAUTER CS 2000-3P2
CR 500-1Y1	Measuring Cell SAUTER CR 500-1Y1
CR 5000-1Y1	Measuring Cell SAUTER CR 5000-1Y1
CR 10000-1Y1	Measuring Cell SAUTER CR 10000-1Y1
AE 01	Standard Clamp AE 01
AE 05	Rope and thread tension clamp SAUTER AE 05
CO 1-Y5	Measuring Cell SAUTER CO 1-Y5
AC 43	Standard attachments SAUTER AC 43
CS 600-3P1	Measuring Cell SAUTER CS 600-3P1
CS 750-3P1	Measuring Cell SAUTER CS 750-3P1
CS 15000-3P1	Measuring Cell SAUTER CS 15000-3P1
CS 200-3Q1	Measuring Cell SAUTER CS 200-3Q1
CS 500-3Q1	Measuring Cell SAUTER CS 500-3Q1
CS 2000-3Q1	Measuring Cell SAUTER CS 2000-3Q1
CS 6000-3Q1	Measuring Cell SAUTER CS 6000-3Q1

Model	Description
CD 20-3P1	Measuring Cell SAUTER CD 20-3P1
CR 2500-1Q1	Measuring Cell SAUTER CR 2500-1Q1
CR 500-3P1	Measuring Cell SAUTER CR 500-3P1
CR 250-3P1	Measuring Cell SAUTER CR 250-3P1
CO 100-Y2	Measuring Cell SAUTER CO 100-Y2
AFM 05	Adapter KERN AFM 05
AFM 07	Sleeve SAUTER AFM 07
CO 500-Y2	Measuring Cell SAUTER CO 500-Y2
CS 100-3P2	Measuring Cell SAUTER CS 100-3P2
CO 5-Y3	Measuring Cell SAUTER CO 5-Y3
AE 03	Clamp SAUTER AE 03
AFK 02	Stainless steel handle bar SAUTER AFK 02
CS 50-3P1	Measuring Cell SAUTER CS 50-3P1
CS 100-3P1	Measuring Cell SAUTER CS 100-3P1
CS 500-3P1	Measuring Cell SAUTER CS 500-3P1
CS 2000-3P1	Measuring Cell SAUTER CS 2000-3P1
CS 30000-3P1	Measuring Cell SAUTER CS 30000-3P1
CS 300-3Q1	Measuring Cell SAUTER CS 300-3Q1
CS 1500-3Q1	Measuring Cell SAUTER CS 1500-3Q1
CR 10000-1Q1	Measuring Cell SAUTER CR 10000-1Q1
CR 2000-3P1	Measuring Cell SAUTER CR 2000-3P1
CO 10-Y1	Measuring Cell SAUTER CO 10-Y1
CS 5000-3P2	Measuring Cell SAUTER CS 5000-3P2
AFM 12	assembly and repair AFM 12
AFM 15	Sleeve SAUTER AFM 15
CO 20-Y1	Measuring Cell SAUTER CO 20-Y1
CO 20-Y2	Measuring Cell SAUTER CO 20-Y2
CS 250-3P2	Measuring Cell SAUTER CS 250-3P2
CS 1-Y1	Measuring Cell SAUTER CS 1-Y1
CS 2-Y1	Measuring Cell SAUTER CS 2-Y1
CS 10-Y1	Measuring Cell SAUTER CS 10-Y1

Model	Description
CO 10-Y3	Measuring Cell SAUTER CO 10-Y3
CO 5-Y4	Measuring Cell SAUTER CO 5-Y4
CR 1000-1Y1	Measuring Cell SAUTER CR 1000-1Y1
AE 02	Standard Clamp AE 02
YKA-01	Power supply KERN YKA-01
AC 14	Screw Tension Clamp SAUTER AC 14
AC 14R	Screw Tension Clamp SAUTER AC 14R
AE 500	Screw Tension Clamp SAUTER AE 500
CS 5000-3P1	Measuring Cell SAUTER CS 5000-3P1
CS 7500-3P1	Measuring Cell SAUTER CS 7500-3P1
CS 10000-3P1	Measuring Cell SAUTER CS 10000-3P1
CS 150-3Q1	Measuring Cell SAUTER CS 150-3Q1
CS 1000-3Q1	Measuring Cell SAUTER CS 1000-3Q1
CR 5000-1Q1	Measuring Cell SAUTER CR 5000-1Q1
CR 20000-1Q1	Measuring Cell SAUTER CR 20000-1Q1
CR 30000-1Q1	Measuring Cell SAUTER CR 30000-1Q1
CR 130-3P1	Measuring Cell SAUTER CR 130-3P1
CO 100-Y1	Measuring Cell SAUTER CO 100-Y1
CO 10-Y2	Measuring Cell SAUTER CO 10-Y2
CO 50-Y1	Measuring Cell SAUTER CO 50-Y1
CO 200-Y1	Measuring Cell SAUTER CO 200-Y1
CO 1000-Y1	Measuring Cell SAUTER CO 1000-Y1
CO 50-Y2	Measuring Cell SAUTER CO 50-Y2
CO 200-Y2	Measuring Cell SAUTER CO 200-Y2
CO 1000-Y2	Measuring Cell SAUTER CO 1000-Y2
CO 2000-Y2	Measuring Cell SAUTER CO 2000-Y2
CS 5-Y1	Measuring Cell SAUTER CS 5-Y1
CS 7500-3P2	Measuring Cell SAUTER CS 7500-3P2
CR 20000-1Y1	Measuring Cell SAUTER CR 20000-1Y1
AE 04	Clamp SAUTER AE 04
AE 06	Clamp SAUTER AE 06

Model	Description
AE 07	Wedge Clamp with jaws AE 07
CO 0.5-Y5	Measuring Cell SAUTER CO 0.5-Y5
CO 5-Y5	Measuring Cell SAUTER CO 5-Y5
CO 10-Y5	Measuring Cell SAUTER CO 10-Y5

SERVICES

Model	Description
961-361	Factory calibration KERN 961-361
970-106	Warranty extension KERN (+2 years) 970-106
961-161	Factory calibration KERN 961-161
961-261	Factory calibration KERN 961-261
963-361	DAkkS Calibration KERN 963-361
963-161	DAkkS Calibration KERN 963-161
963-261	DAkkS Calibration KERN 963-261

SPARE PARTS

Model	Description
FS-E11	Plug SAUTER FS-E11
FS-E12	Memory chip FS-E12
FS-M04	Distance socket FS-M04
FS-M05	Load introduction bolt FS-M05
FS-M07	Distance socket FS-M07
FS-M03	assembly and repair
FS-M08	Touch pen FS-M08
CS 50-Y2	Measuring Cell SAUTER CS 50-Y2
FS-M06	Adhesive pad FS-M06
FS-E05	Removable battery
FS-E09	Keyboard overlay FS-E09
FS-E06	Cable SAUTER FS-E06
FS-E07	Power supply KERN FS-E07
FS-M15	Transport case SAUTER FS-M15
FS-M01	Casing FS-M01

Model	Description
FS-M02	Casing FS-M02
FS-E04	Board SAUTER FS-E04
FS-E08	SD memory card FS-E08
FS-M17	Stopper FS-M17
FS-M15E	Foam SAUTER FS-M15E

SOFTWARES

Model	Description
AFH LD	Data Transfer Software SAUTER AFH LD

RELATED ARTICLES DATA

Model name	Max. Force	Readability
FS 2-20	20 N	0.004 N
FS 4-20	20 N	0.004 N
FS 2-50	50 N	0.01 N
FS 4-50	50 N	0.01 N
FS 2-100	100 N	0.02 N
FS 4-100	100 N	0.02 N
FS 2-200	200 N	0.04 N
FS 4-200	200 N	0.04 N
FS 2-500	500 N	0.1 N
FS 4-500	500 N	0.1 N