

Force Gauge Sets SAUTER FS SP1 · FS RY1 · FS RQ1 · FS OY1 · FS OY2



FS SP1
For tensile and compressive force measurements

FS RY1
For tensile and compressive force measurements

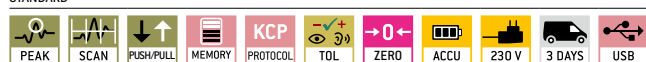
Practical set of premium force gauge and measuring cell

Thanks to several versions, the pre-configured sets are suitable for tensile and compressive force measurements in a wide range of applications. The set includes the premium force gauge FS 2 and the necessary service FS 401 - FS 408.

It is supplemented optionally by:

- The 4-wire "S" load cell made of nickel-plated steel for force and mass measurement/for tensile and compressive force measurements CS P1 (for details see set FS SP1)
- The load cell made of alloyed steel CR Y1 for tension and compressive force measurements (for details see set FS RY1)
- The load cell made of stainless steel CR Q1 for compressive force measurements (details see set FS RQ1)
- Miniature button-type load cells made of stainless steel CO Y1 for compressive force measurements (details see set FS OY1) or CO Y2 for tensile and compressive force measurements (details see set FS OY2)

STANDARD



OPTION



* only for FS SP1, FS RY1, FS OY2
** up to 5 kN

FS SP1

Model	Measuring range	Readability	Load cell in the set	Option DAkkS calib. cert. (< 5 kN) / Factory calib. cert. (> 5 kN)		
				Tensile force	Compressive force	Tensile/Comp. force
SAUTER	[Max] N	[d] N		DAkkS KERN	DAkkS KERN	DAkkS KERN
FS 2-1KSP1	1000	0,2	CS 100-3P1	963-162	963-262	963-362
FS 2-2KSP1	2500	0,5	CS 250-3P1	963-163	963-263	963-363
FS 2-5KSP1	5000	1	CS 500-3P1	963-163	963-263	963-363
FS 2-10KSP1	10000	2	CS 1000-3P1	961-164	961-264	961-364
FS 2-20KSP1	20000	4	CS 2000-3P1	961-164	961-264	961-364
FS 2-50KSP1	50000	10	CS 5000-3P1	961-165	961-265	961-365
FS 2-100KSP1	100000	20	CS 10000-3P1	961-166	961-266	961-366

FS RY1

Model	Measuring range	Readability	Load cell in the set	Option DAkkS calib. cert. (< 5 kN) / Factory calib. cert. (> 5 kN)		
				Tensile force	Compressive force	Tensile/Comp. force
SAUTER	[Max] N	[d] N		DAkkS KERN	DAkkS KERN	DAkkS KERN
FS 2-5KRY1	5000	1	CR 500-1Y1	963-163	963-263	963-363
FS 2-10KRY1	10000	2	CR 1000-1Y1	961-164	961-264	961-364
FS 2-50KRY1	50000	10	CR 5000-1Y1	961-165	961-265	961-365
FS 2-100KRY1	100000	20	CR 10000-1Y1	961-166	961-266	961-366
FS 2-200KRY1	200000	40	CR 20000-1Y1	961-167	961-267	961-367

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SAUTER FS RQ1

For compressive force measurements



SAUTER FS OY1

For compressive force measurements



SAUTER FS OY2

For tensile and compressive force measurements

FS RQ1

Model	Measuring range	Readability	Load cell in the set	Option DAkkS calib. cert. (< 5 kN) / Factory calib. cert. (> 5 kN)		
				Tensile force	Compressive force	Tensile/Comp. force
	[Max] N	[d] N		DAkkS KERN	DAkkS KERN	DAkkS KERN
SAUTER						
FS 2-25KRQ1 	25000	5	CR 2500-1Q1	-	961-265	-
FS 2-50KRQ1 	50000	10	CR 5000-1Q1	-	961-265	-
FS 2-100KRQ1 	100000	20	CR 10000-1Q1	-	961-266	-

FS OY1

Model	Measuring range	Readability	Load cell in the set	Option DAkkS calib. cert. (≤ 5 kN) / Factory calib. cert. (> 5 kN)		
				Tensile force	Compressive force	Tensile/Comp. force
	[Max] N	[d] N		DAkkS KERN	DAkkS KERN	DAkkS KERN
SAUTER						
FS 2-500OY1 	500	0,1	CO 50-Y1	-	963-261	-
FS 2-2KOY1 	2000	0,4	CO 200-Y1	-	963-262	-
FS 2-5KOY1 	5000	1	CO 500-Y1	-	963-263	-
FS 2-20KOY1 	20000	4	CO 2000-Y1	-	961-264	-

FS OY2

Model	Measuring range	Readability	Load cell in the set	Option DAkkS calib. cert. (< 5 kN) / Factory calib. cert. (> 5 kN)		
				Tensile force	Compressive force	Tensile/Comp. force
	[Max] N	[d] N		DAkkS KERN	DAkkS KERN	DAkkS KERN
SAUTER						
FS 2-100OY2 	100	0,02	CO 10-Y2	963-161	963-261	963-361
FS 2-500OY2 	500	0,1	CO 50-Y2	963-161	963-261	963-361
FS 2-1KOY2 	1000	0,2	CO 100-Y2	963-162	963-262	963-362

Accessories

- A/D converter module for expansion from 2 to 4 external measuring channels, SAUTER FS 34
- Transport case, e.g. for accessories (only suitable for measuring range up to 10.000 N), SAUTER FS TKZ
- Plug-In for data transfer of measuring data from the measuring instrument and transfer to a PC, e.g. in Microsoft Excel®, SAUTER AFI-2.0
- Holders for object fixation and other accessories

 **New model**

 Adjusting program (CAL) For quick setting of the instrument's accuracy. External adjusting weight required	 Bluetooth* data interface To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 Measuring units Weighing units can be switched to e.g. non-metric. Please refer to website for more details	 Conformity assessment Models with type approval for construction of verifiable systems
 Calibration block Standard for adjusting or correcting the measuring device	 WIFI data interface To transfer data from the balance/measuring instrument to a printer, PC or other peripherals	 Measuring with tolerance range (limit-setting function) Upper and lower limiting can be programmed individually. The process is supported by an audible or visual signal, see the relevant model	 DAkkS calibration possible The time required for DAkkS calibration is shown in days in the pictogram
 Peak hold function Capturing a peak value within a measuring process	 Data interface infrared To transfer data from the measuring instrument to a printer, PC or other peripheral devices	 Protection against dust and water splashes IPxx The type of protection is shown in the pictogram cf. DIN EN 60529:2000-09, IEC 60529:1989 +A1:1999+A2:2013	 Factory calibration (ISO) The time required for factory calibration is specified in the pictogram
 Scan mode Continuous capture and display of measurements	 Control outputs (optocoupler, digital I/O) To connect relays, signal lamps, valves, etc.	 Battery operation Ready for battery operation. The battery type is specified for each device	 Package shipment The time required for internal shipping preparations is shown in days in the pictogram
 Push and Pull The measuring device can capture tension and compression forces	 Analogue interface To connect a suitable peripheral device for analogue processing of the measurements	 ZERO Resets the display to "0"	 Pallet shipment The time required for internal shipping preparations is shown in days in the pictogram
 Length measurement Captures the geometric dimensions of a test object or the movement during a test process	 Analogue output For output of an electrical signal depending on the load (e.g. voltage 0 V – 10 V or current 4 mA – 20 mA)	 Rechargeable battery pack Rechargeable set	
 Focus function Increases the measuring accuracy of a device within a defined measuring range	 Statistics Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.	 Plug-in power supply 230V/50Hz in standard version for EU. On request GB, AUS or US version available	
 Internal memory To save measurements in the device memory	 PC Software To transfer the measurement data from the device to a PC	 Integrated power supply unit Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US on request	
 Data interface RS-232 Bidirectional, for connection of printer and PC	 Printer A printer can be connected to the device to print out the measurement data	 Motorised drive The mechanical movement is carried out by an electric motor	
 Profibus For transmitting data, e.g. between scales, measuring cells, controllers and peripheral devices over long distances. Suitable for safe, fast, fault-tolerant data transmission. Less susceptible to magnetic interference	 Network interface For connecting the scale/measuring instrument to an Ethernet network	 Motorised drive The mechanical movement is carried out by a synchronous motor (stepper)	
 Profinet Enables efficient data exchange between decentralised peripheral devices (balances, measuring cells, measuring instruments etc.) and a control unit (controller). Especially advantageous when exchanging complex measured values, device, diagnostic and process information. Savings potential through shorter commissioning times and device integration possible	 KERN Communication Protocol (KCP) It is a standardized interface command set for KERN balances and other instruments, which allows retrieving and controlling all relevant parameters and functions of the device. KERN devices featuring KCP are thus easily integrated with computers, industrial controllers and other digital systems	 Fast-Move The total length of travel can be covered by a single lever movement	
 Data interface USB To connect the measuring instrument to a printer, PC or other peripheral devices	 GLP/ISO record keeping of measurement data with date, time and serial number. Only with SAUTER printers		