

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



FS SP1
For tensile and compressive force measurements



NEW



FS RY1
For tensile and compressive force measurements

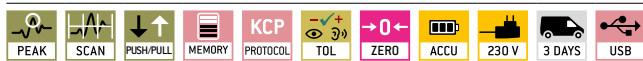
Practical set of premium force gauge and measuring cell

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

FS RY1

Model	Measuring range [Max] N	Readability [d] N	Load cell in the set	Option DAkkS calib. cert. (< 5 kN) / Factory calib. cert. (> 5 kN)		
				Tensile force DAkkS KERN	Compressive force DAkkS KERN	Tensile/Comp. force DAkkS KERN
SAUTER						
FS 2-5KRY1 <small>NEW</small>	5000	1	CR 500-1Y1	963-163	963-263	963-363
FS 2-10KRY1 <small>NEW</small>	10000	2	CR 1000-1Y1	961-164	961-264	961-364
FS 2-50KRY1 <small>NEW</small>	50000	10	CR 5000-1Y1	961-165	961-265	961-365
FS 2-100KRY1 <small>NEW</small>	100000	20	CR 10000-1Y1	961-166	961-266	961-366
FS 2-200KRY1 <small>NEW</small>	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 [Max] N	Readability [d] N	Load cell in the set	Option DAkkS calib. cert. (< 5 kN) / Factory calib. cert. (> 5 kN)		
				Tensile force DAkkS KERN	Compressive force DAkkS KERN	Tensile/Comp. force DAkkS KERN
SAUTER						
FS 2-25KRQ1 <small>NEW</small>	25000	5	CR 2500-1Q1	-	961-265	-
FS 2-50KRQ1 <small>NEW</small>	50000	10	CR 5000-1Q1	-	961-265	-
FS 2-100KRQ1 <small>NEW</small>	100000	20	CR 10000-1Q1	-	961-266	-

FS OY1

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

FS OY2

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

CAL EXT
Adjusting program (CAL)
 For quick setting of the instrument's accuracy. External adjusting weight required

CAL BLOCK
Calibration block
 Standard for adjusting or correcting the measuring device

PEAK
Peak hold function
 Capturing a peak value within a measuring process

SCAN
Scan mode
 Continuous capture and display of measurements

PUSH/PULL
Push and Pull
 The measuring device can capture tension and compression forces

SCALE
Length measurement
 Captures the geometric dimensions of a test object or the movement during a test process

FOCUS
Focus function
 Increases the measuring accuracy of a device within a defined measuring range

MEMORY
Internal memory
 To save measurements in the device memory

RS 232
Data interface RS-232
 Bidirectional, for connection of printer and PC

PROFIBUS
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

PROFINET
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

USB
Data interface USB
 To connect the measuring instrument to a printer, PC or other peripheral devices

BT
Bluetooth* data interface
 To transfer data from the balance/measuring instrument to a printer, PC or other peripherals

WIFI
WIFI data interface
 To transfer data from the balance/measuring instrument to a printer, PC or other peripherals

IR
Data interface infrared
 To transfer data from the measuring instrument to a printer, PC or other peripheral devices

SWITCH
Control outputs (optocoupler, digital I/O)
 To connect relays, signal lamps, valves, etc.

ANALOG
Analogue interface
 To connect a suitable peripheral device for analogue processing of the measurements

DUAL
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)

LAN
Statistics
 Using the saved values, the device calculates statistical data, such as average value, standard deviation etc.

SOFTWARE
PC Software
 To transfer the measurement data from the device to a PC

PRINT
Printer
 A printer can be connected to the device to print out the measurement data

LAN
Network interface
 For connecting the scale/measuring instrument to an Ethernet network

KCP PROTOCOL
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

GLP PRINTER
GLP/ISO record keeping
 of measurement data with date, time and serial number. Only with SAUTER printers

UNIT
Measuring units
 Weighing units can be switched to e.g. non-metric. Please refer to website for more details

TOL
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

IP
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

ZERO
ZERO
 Resets the display to "0"

BATT
Battery operation
 Ready for battery operation. The battery type is specified for each device

ACCU
Rechargeable battery pack
 Rechargeable set

230 V
Plug-in power supply
 230V/50Hz in standard version for EU. On request GB, AUS or US version available

230 V
Integrated power supply unit
 Integrated, 230V/50Hz in EU. More standards e.g. GB, AUS or US on request

ELECTRO
Motorised drive
 The mechanical movement is carried out by an electric motor

STEPPER
Motorised drive
 The mechanical movement is carried out by a synchronous motor (stepper)

FAST-MOVE
Fast-Move
 The total length of travel can be covered by a single lever movement

M
Conformity assessment
 Models with type approval for construction of verifiable systems

DAkkS +3 DAYS
DAkkS calibration possible
 The time required for DAkkS calibration is shown in days in the pictogram

ISO +4 DAYS
Factory calibration (ISO)
 The time required for factory calibration is specified in the pictogram

1 DAY
Package shipment
 The time required for internal shipping preparations is shown in days in the pictogram

2 DAYS
Pallet shipment
 The time required for internal shipping preparations is shown in days in the pictogram

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