

Sophisticated weighing solution for lab professionals

FS Series High Precision Industrial Balance

Large capacity, max. 300kg
High resolution up to 620,000 divisions
IP protection 65



FS 150K1GF & 300K1GF
(Platform size 800 x 600mm)

High Capacity and High Precision – Two in One

FS series attains high capacity and high precision in single unit. With FS 300K1GF model, you can measure up to 300KG with 1g readability, which satisfies two demands in single unit, high capacity and high resolution.

Unique technology “tuning-fork” sensor enables “two-in-one” feature. This unique technology also ensures excellent weighing performance and long-term stability even in tough condition.



FS 3202, 6202 & 15001

FS 623
(optional windshield)

FS 60K0.1G, 100K1G & 200K1G



Reliable measurement for every process in manufacturing

FS series helps your daily weighing operation in every process in manufacturing line. With weighing range from 620g to 300kg and minimum read-out 1mg, FS can cover every process, in-bound material control, production, inspection and out-bound control, etc...



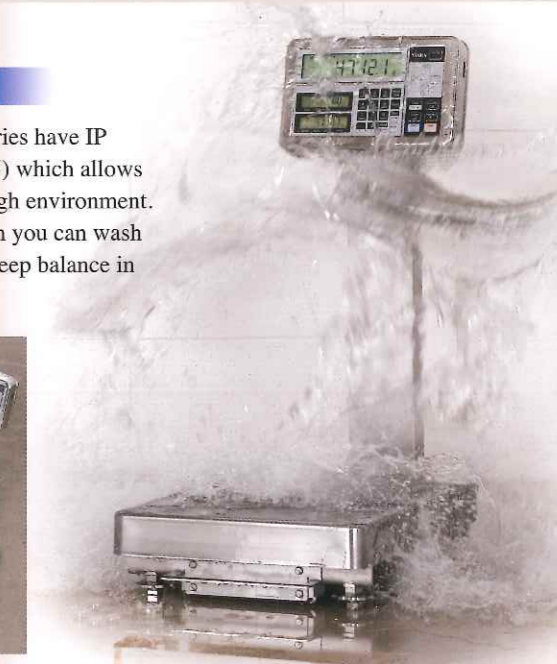
Selectable indicator

You can choose one of two indicators, i02 type and i03 type. i03 type has two sub-displays in which two additional information can be indicated (tare weight, gross weight, lower and upper limit, etc..). It make weighing operation easier and more comfortable.

IP protection, easy to clean



All models in FS series have IP protection (rating 65) which allows FS to be used in tough environment. After daily operation you can wash FS with water and keep balance in clean condition.



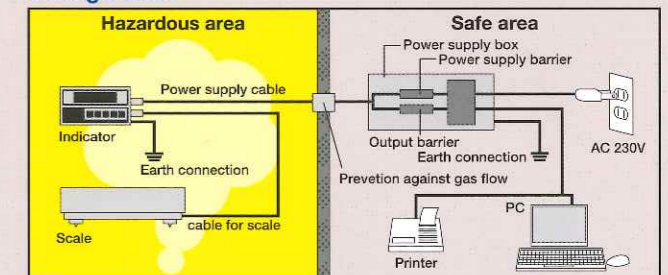
Hazardous use, FZ series



II 1 G Ex ia IIB T4 Ga

Weighing operation must be often carried out in hazardous area in industry like pharmaceutical, aloma-chemicals, etc...We offer Ex models as FZ series with category 1G (zone 0, 1 and 2). All advantages such as “two-in-one”, IP protection, excellent weighing performance are available in FZ series.

Configuration



Operation area

	II A	II B	II C
T1	acetone, benzene, ammonia, methanol, ethane, toluene, propane, methane, acetic acid	coke-oven gas, acrylonitrile, hydrocyanic acid, cyclopropane	hydrogen
T2	ethanol, butanol, butane, methyl methacrylate	ethylene, ethylene oxide, ethyl acrylate	acetylene
T3	gasoline, hexane, pentane	acrylaldehyde, dimethyl ether	
T4	acetaldehyde, trimethylamine	ethyl methyl ether, diethyl ether	
T5			carbon disulfide
T6	ethyl nitrite		ethyl nitrite

Options – for more efficient and useful operation –

We supply options like communication output, windshield, display stands, etc... Please contact local partners for detail (one output of RS232C is available as standard).



Signal output



Windshield for FS 623 / FZ 623Ex



Floor Stand



Pole stand

Specifications

FS series

Model name	FS 623	FS 3202	FS 6202	FS 15001	FS 30K0.1G	FS 60K0.1G	FS 100K1G	FS 200K1G	FS 150K1GF	FS 300K1GF
Capacity	620g	3200g	6200g	15000g	30kg	60kg	100kg	200kg	150kg	300kg
Readability (d)	0.001g	0.01g	0.01g	0.1g	0.1g	0.1g	1g	1g	1g	1g
Verification intervals (e)	0.01g	0.1g	0.1g	1g	1g	1g	10g	10g	10g	10g
Pan size	140mm dia	190x190 mm		310x330 mm		380x530 mm		800x600 mm		
Repeatability	0.001g	0.01g	0.01g	0.1g	0.1g	0.1g	1g	1g	0.7g	0.8g
Non-Linearity	±0.002g	±0.02g	±0.02g	±0.2g	±0.1g	±0.2g	±2g	±2g	±3g	±5g
Calibration	by external weight		by external weight		by external weight		by external weight		by external weight	

Common specifications
 IP protection rating 65
 OIML & EC approval class 2
 Measuring system : tuning-fork frequency system
 Power supply : AC adaptor and dry-cell battery *1
 Output1 : RS232C or option connector
 Output2 : RS232C
 Indicator : i02 or i03 selectable *2 model name with i02: FS 623-i02
 model name with i03: FS 623-i03
 Display : Back-lit LCD
 Scale cable length : 5m for FS 150K1GF and 300K1GF. 1m for all other models. *3

Options *Some options are not available together at the same time. Please see our website or contact distributor for detail.
 FS-RS : additional RS232C output
 FS-R4 : RS422A output
 FS-LM : Relay contact
 FS-TI : TCP/IP output
 FS-DS : display stand
 FS-PK : Pole stand
 FS-SC : Extended scale cable (per 5m, max.30m)
 FS-WS : Windshield for FS 623 (S, M, L. Three sizes selectable)
 FS-OX(S) : Communication option box (S)
 FS-OX(M) : Communication option box (M)

FZ series

Model name	FZ 623Ex	FZ 3202Ex	FZ 6202Ex	FZ 15001Ex	FZ 30K0.1GEx	FZ 60K0.1GEx	FZ 100K1GEx	FZ 200K1GEx	FZ 150K1GFEx	FZ 300K1GFEx
Capacity	620g	3200g	6200g	15000g	30kg	60kg	100kg	200kg	150kg	300kg
Readability (d)	0.001g	0.01g	0.01g	0.1g	0.1g	0.1g	1g	1g	1g	1g
Verification intervals (e)	0.01g	0.1g	0.1g	1g	1g	1g	10g	10g	10g	10g
Pan size	140mm dia	190x190 mm		310x330 mm		380x530 mm		800x600 mm		
Repeatability	0.001g	0.01g	0.01g	0.1g	0.1g	0.1g	1g	1g	0.7g	0.8g
Non-Linearity	±0.002g	±0.02g	±0.02g	±0.2g	±0.1g	±0.2g	±2g	±2g	±3g	±5g
Calibration	by external weight		by external weight		by external weight		by external weight		by external weight	

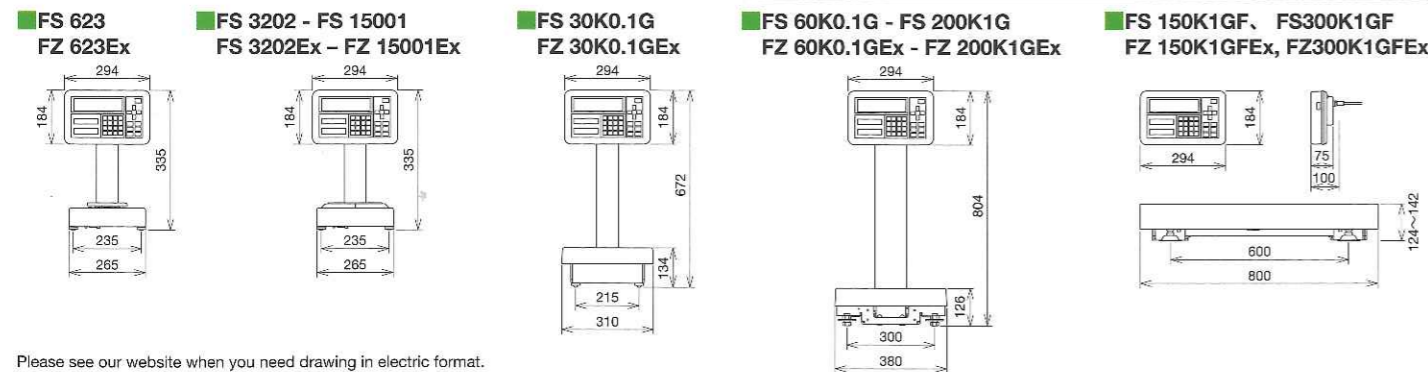
Common specifications
 ATEX approval II 1 G Ex ia IIB T4 Ga
 IP protection rating 65
 OIML & EC approval class 2
 Measuring system : tuning-fork frequency system
 Power supply : Power supply box attached as standard
 Output1 : RS232C or option connector
 Output2 : N/A
 Indicator : i02 or i03 selectable *2 model name with i02: FZ 623Ex-i02
 model name with i03: FZ 623Ex-i03
 Display : LCD without back-lit
 Scale cable length : 5m for FZ 150K1GFEx and 300K1GFEx.
 1m for all other models. *3
 Power supply cable : 5m. *4
 *1 D type (USA), R20 and LR20 (IEC category) are available.
 *2 Not changeable after delivery
 *3 "scale cable" is cable between platform and indicator.
 *4 "power supply cable" is cable between indicator and power supply box.
 *5 Please contact local distributor in case you need more than 70m length.

Options *Some options are not available together at the same time. Please see our website or contact distributor for detail.
 FS-RS : additional RS232C output
 FS-R4 : RS422A output
 FS-LM : Relay contact
 FS-TI : TCP/IP output
 FS-DS : display stand
 FS-PK : Pole stand
 FS-SC : Extended scale cable (per 5m, max.30m)
 FZ-PC : Extended power supply cable (per 5m, max.70m) *5
 FS-WS : Windshield for FZ 623Ex (S, M, L. Three sizes selectable)
 FZ-PX(M) : Power supply box (M)



Tuning-fork weighing cell

Dimensions



Please see our website when you need drawing in electric format.
 The contents of this catalogue are subject to change due to modifications and/or other reasons.

SHINKO DENSHI CO., LTD.

SHINKO DENSHI CO., LTD.
 3-9-11 YUSHIMA, BUNKYO-KU, TOKYO 113-0034
 TEL : 81-3-3831-9656 FAX : 81-3-5818-6066
 URL : <http://www.vibra.co.jp/global/>
 E-mail : shinko-denshi@vibra.co.jp
www.facebook.com/VIBRAbalance

Distributed by:



FS Series
 High Precision Industrial Balance



High Precision Weighing for Every Process in Manufacturing



SHINKO DENSHI CO., LTD.