



Intrinsical Safety
Ex ia IIB T4



Ex-PROOF TUNING-FORK SCALE

GZII/GZH Series

Specifications

GZx-xxxCEx stands for EC type approval model. The separate type with display stand option (GZ-DS) is available for all models.

GZII Series (External weight, power supply box type)

with EC approval	GZII-2000Ex GZII-2000CEX	GZII-6000Ex GZII-6000CEX	GZII-12KEx GZII-12KCEX	GZII-30KEx GZII-30KCEX	GZII-60KEx GZII-60KCEX	GZII-60KFEx	GZII-100KFEx	GZII-200KFEx
Capacity	2000g	6000g	12000g	30000g	60000g	60kg	100kg	200kg
Readability	0.01g	0.1g	0.1g	5g(1g)*1	1g	0.002kg	0.005kg	0.01kg
Pan size	170mm dia.	250x202mm		360x326mm		395x610mm		
Calibration	with external weight							
Dimensions(LWH)	350x238x410mm	350x250x410mm		500x360x670mm		780x395x890mm		

GZII-B Series (External weight, dry-cell battery type)

with EC approval	GZII-B2000Ex GZII-B2000CEX	GZII-B6000Ex GZII-B6000CEX	GZII-B12KEx GZII-B12KCEX	GZII-B30KEx GZII-B30KCEX	GZII-B60KEx GZII-B60KCEX	GZII-B60KFEx	GZII-B100KFEx	GZII-B200KFEx
Capacity	2000g	6000g	12000g	30000g	60000g	60kg	100kg	200kg
Readability	0.01g	0.1g	0.1g	5g(1g)*1	1g	0.002kg	0.005kg	0.01kg
Pan size	170mm dia.	250x202mm		360x326mm		395x610mm		
Calibration	with external weight							
Dimensions(LWH)	350x238x410mm	350x250x410mm		500x360x670mm		780x395x890mm		

EC type approval model is not available in GZII-(B)60KF, GZII-(B)100KF and GZII-(B)200KF. *1 1g read-out is available only for GZII-(B)30KEx.

GZH Series (Built-in weight, power supply box type)

with EC approval	GZH-610Ex GZH-610CEX	GZH-1500Ex GZH-1500CEX	GZH-3100Ex GZH-3100CEX	GZH-6100Ex GZH-6100CEX	GZH-30KEx GZH-30KCEX
Capacity	610g	1500g	3100g	6100g	30000g
Readability	0.01g	0.01g	0.01g	0.1g	1g(0.1g)*2
Pan size	140mm dia.	250x202mm		270x250mm	
Calibration	with built-in weight and external weight				
Dimensions(LWH)	350x260x410mm	350x265x410mm		325x265x120mm*3	

Common Options for GZII/GZH

(available only for power supply box type)

GZ-IJ	Printer output (Din 5p)
GZ-RS	RS232C output (D-sub 25p)
GZ-R4	RS422A output (D-sub 25p)
GZ-LM	Relay contact output

Common Options for GZII/GZH

(available both for power supply box type and dry-cell battery type)

GZ-PC	Extended pick-up cable (max.100m, unit per 5m)
GZ-DS	Display stand

Common Specification

Measuring system : Tuning-fork frequency sensing

Tare : Full weighing range

Display : LCD

GZH-B Series (Built-in weight, dry-cell battery type)

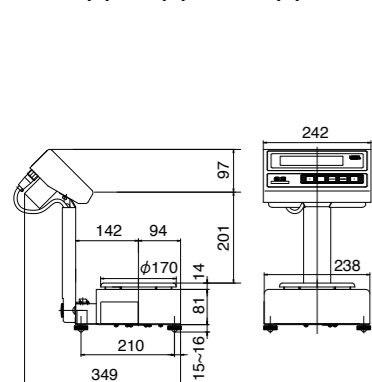
with EC approval	GZH-B610Ex GZH-B610CEX	GZH-B1500Ex GZH-B1500CEX	GZH-B3100Ex GZH-B3100CEX	GZH-B6100Ex GZH-B6100CEX	GZH-B30KEx GZH-B30KCEX
Capacity	610g	1500g	3100g	6100g	30000g
Readability	0.01g	0.01g	0.01g	0.1g	1g(0.1g)*2
Pan size	140mm dia.	250x202mm		270x250mm	
Calibration	with built-in weight and external weight				
Dimensions(LWH)	350x260x410mm	350x265x410mm		325x265x120mm*3	

*2 0.1g read-out is available only for GZH-(B)30KEx.

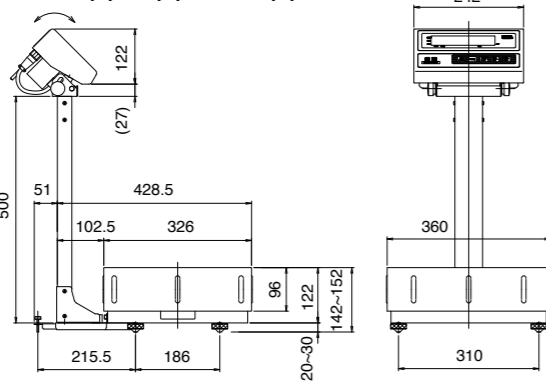
*3 *3 display dimension:170x252x146mm. only separate type is available for GZH-(B)30K.

Dimensions

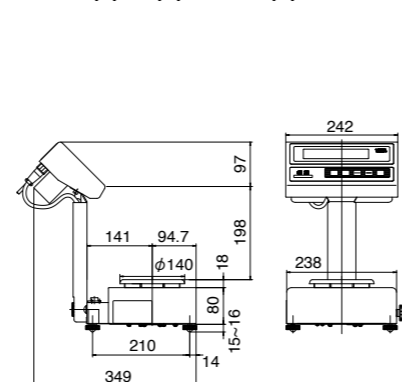
GZII-(B)2000(C)Ex~12K(C)Ex



GZII-(B)30K(C)Ex~60K(C)Ex



GZH-(B)610(C)Ex~12K(C)Ex



Please contact local distributor when the drawings for other models are necessary.
The contents of this catalogue are subject to change due to modifications and/or other reasons.

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Distributed by:

Ex-PROOF TUNING-FORK SCALE

GZII Series

Intrinsically safe scale (external weight type)

Covering the wide weighing range from 2kg to 200kg.
high speed response and stable indication



GZH Series

Intrinsically safe scale with built-in weight

Easy calibration, stable measurement are assured with internal weight



II 2 G Ex ia IIB T4

- Temperature range class for use in hazardous areas
- Gas classification
- Type of protection (intrinsically safe)
- Explosion-protected
- For gases
- Category 2
- Equipment group

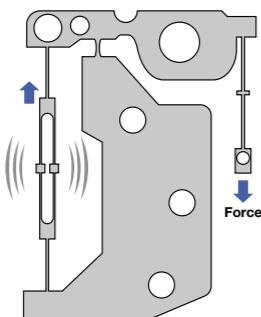
in accordance with
IEC 60079-0:2004 Ed. 4 EN 60079-0 : 2006
IEC 60079-11:2006 Ed. 5 EN 60079-11 : 2007
IECEx KEM08.0016 KEMA 08A TEX0054

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

What makes the tuning-fork sensor so precise?

The tuning-fork sensor measures force or mass by gauging changes in oscillation frequency when a load is applied to a long, narrow vibrator, and it digitally outputs the readings. Unlike load cell or electromagnetic systems, the tuning-fork sensor does not rely on material distortion, electromagnetic force, heavy power consumption, or A/D converters, so its inherent margin of error is extremely small, and its high precision can be maintained for a long time.



Double-Ended tuning fork (DETf) vibrator

Comparison with other sensors

	Tuning-fork	Strain gauge load cell	Electromagnetic
Long-term stability (span drift per year)	1/200,000	1/10,000	1/50,000
A/D converter	Unnecessary (digital output)	Necessary (analog output)	Necessary (analog output)
Power consumption	Minute (1/10 of load cell)	Low	High
Noise-proof	High	Low	Middle
Warm up	Unnecessary	Necessary	Necessary

Selectable from two types in power supply, power supply box type or dry-cell battery type

Power supply box type

no earth connection work is necessary

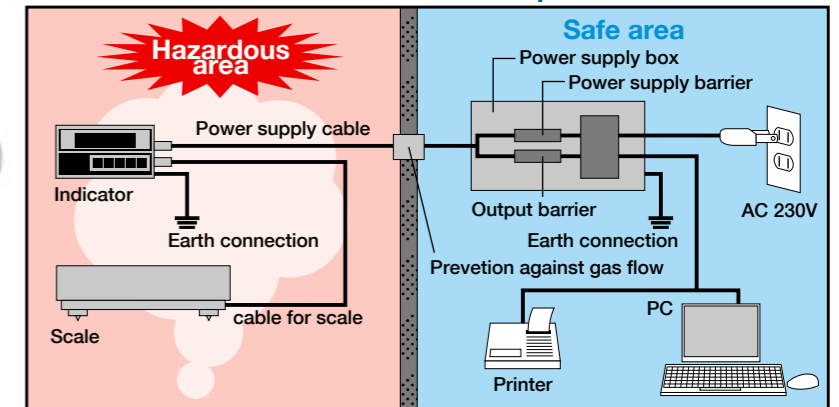


Dry-cell battery type, very easy to install

no wiring work is necessary, 150 hours continuous operation

* the replacement of dry-cell battery has to be done in safe area

Establishment example



Stainless steel housing, tough body ideally fitted to industrial scene

mirror finish weighing pan available as standard in GZII-(B)2000(C)Ex, 6000(C)Ex, 12K(C)Ex, all models in GZH-(B) series



OIML R76 approved

available for legal-for-trade use (GZII-60KFEx, 100KFEx, 200KFEx are not OIML approved)

Quick reading by Bar-graph indication

20-step bar graph display readily indicates the current load against the capacity



Easy comparator function with two limit values setting

judge the result by displaying the arrow mark as either HI (excessive), OK (appropriate), or LO (insufficient).

Easy connection to outside devices like PC, printer

plentiful options are selectable
*output options are available only with power supply box type



Always keep the scale in good condition

semi-automatic calibration with built-in weight (available only with GZH-(B) series). GZII-(B) series can be calibrated with external reference weight.