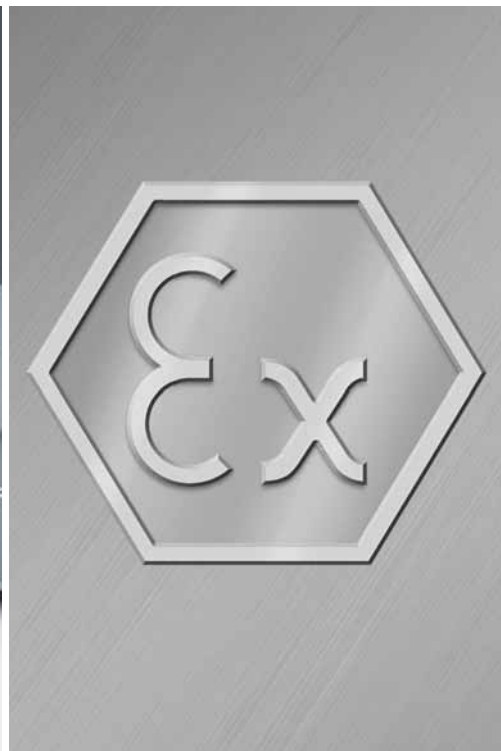




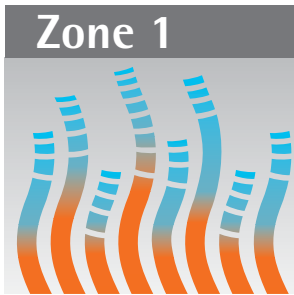
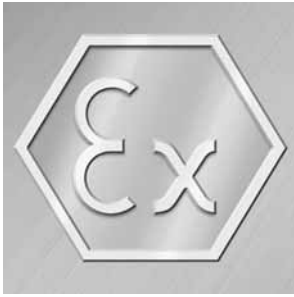
sartorius
mechatronics

Competence for safety Factory Ex series



turning science into solutions

Precision scales from 0.001 g to 300 kg



The latest weighing technology for reliable results – even in hazardous areas: Factory Ex scales

These industrial scales combine the extensive experience Sartorius has in advanced weighing technology with the latest types of explosion protection.

Monolithic weigh cell technology makes these scales both rugged enough for industrial environments and exceptionally accurate.

These characteristics interact perfectly with sophisticated filter algorithms to guarantee reliable measurements. The advantages for your production process:

- Improved long-term stability of weighing data
- Enhanced performance even in fluctuating temperatures
- High stability for off-center loading
- Excellent repeatability and linearity
- High mechanical capacity
- Electrical preload compensation of up to 20% of the weighing capacity

All Factory scales are equipped with built-in motorized calibration weights, so you can check the scale's accuracy by simply pressing a key.

A choice of five power supply versions (see photo) for installation in hazardous or non-hazardous areas gives you even more flexibility.

The RS-232C interface ensures secure data transfer over barriers or interface converters to the non-hazardous area; e.g., to a printer or computer (RS-485 and RS-422 also available).

Factory Ex scales can be networked with up to 8 client devices.

Indicators for Factory Ex precision scales

Both indicator models have backlit graphical displays. For your ease of use, the operating menu lets you customize the display (digit size, optional information, display inversion, contrast, etc.) and activate a bar graph display as an aid in filling. The backlighting ensures good readability even under adverse conditions. Text-supported operator guidance facilitates handling and configuration in every application.

The indicator can also be set up for remote use for individual user guidance (xBPI-functions). Factory Ex scales come with a wide array of application programs: checkweighing, net-total formulation, weighing in percent, statistics, totalizing, recalculation, differential weighing, calculation of weight values, and mass unit conversion.

They also offer several additional functions for combination: second tare memory, ID codes, product data memory and user-definable printout design.



The FC indicator

On FC scales with weighing capacities up to 64 kg, the indicators are made of rugged industrial plastic. The FC indicator comes pre-installed on a column. A bracket is included for optional front-mounting on the platform (standard cable length: 1.7 m). Alternatively, a 2.7-m cable is available for remote operation.

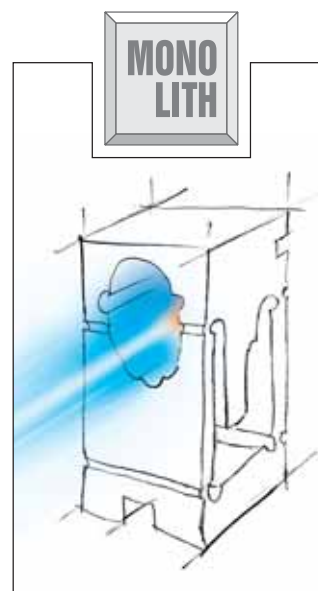
FC models have both power jack and data output port on the weighing platform.



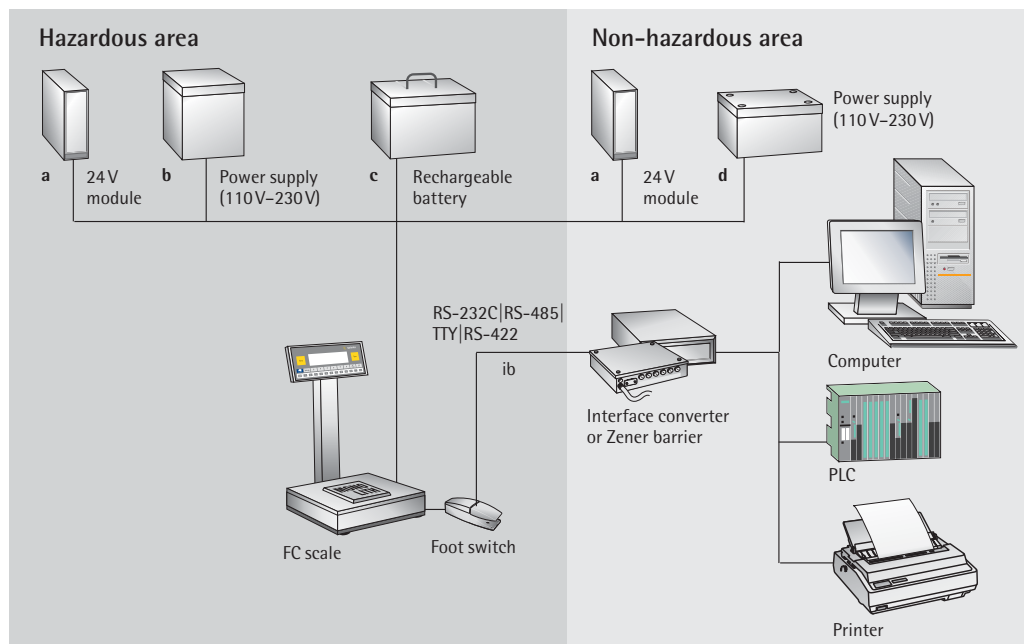
The FCA indicator

For models with weighing capacities from 12 to 300 kg, FCA indicator models are available in brushed AISI type 316 Ti stainless steel (1.4571) with an electropolished front panel. The keys are logically grouped and large enough to operate even when wearing heavy gloves. FCA indicators are equipped for separate installation (cable length 6 m/~20 ft; optionally up to 10 m/~50 ft). Furthermore, the dimensions are compliant with the German DIN 43700 standard for easy installation in control panels.

FCA models have both power jack and data output port on the indicator.



Typical example of Ex scale installation in Zone 1



Power supply cable lengths for Factory Ex

Maximum lengths for power supply options (secondary cable)

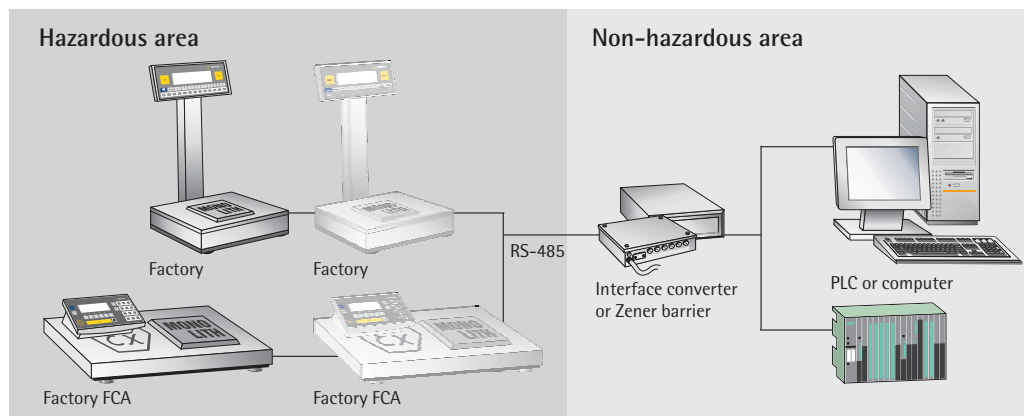
	Standard	Optionally up to
a	5 m	20 m
b	3 m	20 m
c	2 m	20 m
d	20 m	-

Maximum lengths permitted between intrinsically safe data output and Zener barrier (in non-hazardous area) or interface converter (in non-hazardous area or Zone 2)

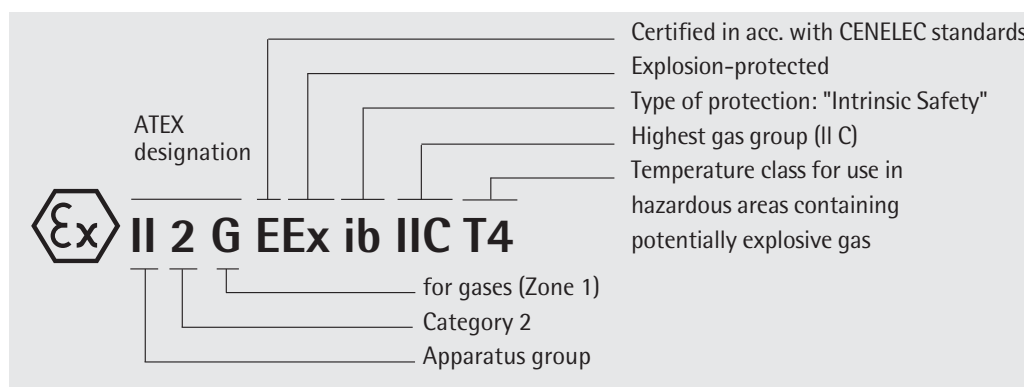
with RS-232C data output up to 20 m*
 with RS-422 data output up to 1200 m
 with RS-485 data output up to 1200 m
 with TTY data output up to 300 m
 (depends on baud rate)

* RS-232C standard guarantees 15 m.

Factory Ex scales in a network (up to 8 scales)



ATEX approval for Factory scales: For use in Zone 1 or 2 hazardous areas



Design A

Model

Weighing capacity

Readability

Load plate dimensions

Dust and water protection

Built-in motorized calibration weight

Net weight

Design

Model/verified ex-factory

Verification scale interval

Minimum sample quantity acc. to CD*

Minimum sample quantity acc. to European prepackage regulations

* Complies with Council Directive 90/384/EEC on no

Model

Weighing capacity

Readability

Load plate dimensions

Dust and water protection

Built-in motorized calibration weight

Net weight FC..EDE-X

Net weight FCA..EDE-X

Design

Model/verified ex-factory

Verification scale interval

Minimum sample quantity acc. to 90/38



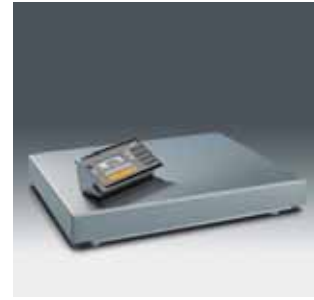
Design B



Design C



Design D



Design E

	FC06BBE-SX	FC2CCE-SX	FC6CCE-HX	FC6CCE-SX	FC12CCE-SX
kg	0.62	2.2	6.2	6.2	12
g	0.001	0.01	0.01	0.1	0.1
mm	∅ 130	216 × 200	216 × 200	216 × 200	216 × 200
	IP54	IP54	IP54	IP54	IP54
	Standard feature	Standard feature	Standard feature	Standard feature	Standard feature
Approx. kg	7	7,5	9	7.5	7.5
	a	b	b	b	b

All models: accuracy class **II**

	FC06BBE-SXCE	FC2CCE-SXCE	FC6CCE-HXCE	FC6CCE-SXCE	FC12CCE-SXCE	FC12CCE-IXCE
g	0.01	0.1	0.1	1	1	0.5
g	0.02	0.5	0.5	5	5	25
g	0.02	0.5	0.5	5	5	50

Non-automatic weighing instruments in the European Union and Signatories of the Agreement on the European Economic Area

	FC12EDE-PX FCA12EDE-PX	FC16EDE-HX FCA16EDE-HX	FC34EDE-PX FCA34EDE-PX	FC34EDE-HX FCA34EDE-HX	FC64EDE-SX* FCA64EDE-SX	FCA150IGG-HX	FCA300IGG-HX
kg	6 12	16	8 16 34	34	64	150	300
g	0.1 0.2	0.1	0.1 0.2 0.5	0.1	1	1	2
mm	300 × 400	300 × 400	300 × 400	300 × 400	300 × 400	300 × 400	300 × 400
	IP65	IP65	IP65	IP65	IP65	IP65	IP65
	Standard feature	Standard feature	Standard feature	Standard feature	Standard feature	Standard feature	Standard fea-
kg	16	16	16	16	16	68.5	68.5
kg	17.5	17.5	17.5	17.5	17.5	-	-
	c d (=FCA models)	c d (=FCA models)	c d (=FCA models)	c d (=FCA models)	c d (=FCA models)	e	e

* FC|FCA64EDE-HX with 64 kg|0.1 g; available with IP44 Protection

All models: accuracy class **II**

	FC12EDE-PXCE FCA12EDE-PXCE	FC16EDE-HXCE FCA16EDE-HXCE	FC34EDE-PXCE FCA34EDE-PXCE	FC34EDE-HXCE FCA34EDE-HXCE	FC64EDE-SXCE FCA64EDE-SXCE	FCA150IGG-HXCE	FCA300IGG-HXCE
g	1	1	1	1	-	10	20
4 EEC g	5	-	5	5	-	50	1000

Accessories for Factory Ex

Description	Order No.	Description	Order No.
Power supplies		Connecting cable between platform and indicator for FC..EDE models; 2.7 m	
configurable power supply in Ex-area, Europe	YPSC01-X		YCC01-0018M3
configurable power supply outside EX, Europe	YPSC01-Z	Cable with open ends (1 pc = 1 m): 6x2xAWG24; recommended e.g. for RS-422, digital OUT and RS-232C ports	YCC422-Y
Power supply outside hazardous area (110 to 240 V) for US	YPS02-ZKR	14-pin male connector for customized cables for networks	69Y03166
Power supply inside the hazardous area (110 to 240 V) for US	YPS02-XXR	Mechanical Accessories*	
EX rechargeable battery for Zone 1, 21, 20	YRB02-X	Wrap-around load plate (water protection) for FC6CCE-S, IS12CCE-SX	YLP01
24 V industrial power supply module (for use inside and outside the hazardous area; installation in 14" control cabinet)	YPS02-XV24	Drive-on ramp for IGG models (1250x600 mm; painted steel), incl. installation kit	YAR10IS
Interfaces		Frame for pit installation (painted steel) for platform dimensions 800x600	YEG04IP
Interface converter for installation in the non-hazardous area or Zone 2 or 22 for connecting peripheral devices in the non-hazardous area; intrinsically safe data interfaces: RS-232C, RS-485, RS-422, TTY, 4 digital I/O; data interfaces in the non-hazardous area: RS-232C, RS-485, RS-422, TTY, 4 digital I/O	YCO01-Y	Frame for pit installation (stainless steel) for platform dimensions 800x600	YEG01IP
Data output: TTY 10mA for FC-BBE CCE-X	YDO01FC-X	Installation kit (stainless steel) for pit installation frame (required for installation of YEG01IP YEG04IP)	YAS04IS
Data output: TTY 10mA for FC-EDE-X models	YDO4FC-X	Floor-mounted column, 1.1 m (~44 in) high	YDH03IS
Data output: TTY 10mA for FCA-X models	YDO1FT-X	Adapter plate, steel, for attaching an FCA indicator to a YDH03IS floor-mounted column	YAS01FCT-X
Data output: RS-485 (e.g., for connecting the scale in a bus network in the hazardous area) for FC-BBE CCE-X	YDO02FC-X	Adjustable display holder for wall mounting (also for FC-X in a network)	YDH01F
for FC-EDE-X	YDO03FC-X	Dust cover for FCA indicator	6960FC01
for FCA-X	YDO02FT-X	Electrical Accessories	
Data output: RS-422 for FCA scales	YDO03FT-X	Zener barrier (2 data lines) for connecting up to max. 8 scales (RS-485 data output port required) with cable acc. to requirements	YDI01-Z
for FC-BBE CCE-X	YDO05FC-X	Zener barrier (4 data lines) for connecting accessories in the non-hazardous area; e.g., printer or computer; cable length from scale to Zener barrier: 20 m (~66 ft)	YDI02-Z
for FC-EDE-X	YDO06FC-X	Zener barrier/4 data lines/control lines)	YDI03-Z
Cables (for connecting an interface converter)		Barrier (2 data lines)	YDI05-Z
Cable with open ends (1 pc = 1 m): LiY6x (2x0m 14C) Y; casing color: blue; recommended e.g. for RS-422 or digital IN interfaces	YCC422-X	RS-232C to RS-232C incl. 20 m cable	+ Option M52
Cable with open ends (1 pc = 1 m): LiY6x (2x0m 14C) Y; casing color: blue; recommended e.g. for RS-232 interface	YCC232-X	Barrier (2 data lines)	YDI05-Z
Cable with open ends (1 pc = 1 m): 5x0.52 LiYCY; casing color: blue; recommended e.g. for 10 mA TTY 10 interface (fits optional TTY COM ports)	YCCITY10-X	RS-422 to RS-232C incl. 20 m cable	+ Option A25 + Option M54
Cable with open ends (1 pc = 1 m): 2x0.22 LiYCY; casing color: blue; recommended e.g. for RS-485 interface	YCC485-X	Charger for YRB02-X (in the non-hazardous area)	YRB02LD
Connecting cable between platform and indicator for FC..BBE CCE models; 2.7 m	YCC01-0019M3	Foot switch for activating tare or print, cable length: 2 m (~6.5 ft)	YPE05-X
		WLAN-EX adapter CIXS3	YWL01-X
		WLAN-EX battery pac	YWL01RB-X

* ATEX-certified roller conveyor available on request?

Sartorius AG
Weender Landstrasse 94-108
37075 Goettingen, Germany

Phone +49.551.308.0
Fax +49.551.308.3289

info.mechatronics@sartorius.com
www.sartorius-mechatronics.com