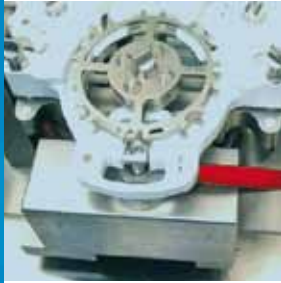


## Designed for Automation in Hazardous Environment, Zone 2



### Filling

Weigh module in a filling machine in the pharmaceutical industry. 38 updates per second, flexible configuration options, monitoring functions integrated into the sensor with digital outputs for optimum filling processes.



### Direct

Direct data transfer via RS232 or RS422 to your PLC. Optional communication via accessory modules with Profibus DP, DeviceNet or Ethernet TCP/IP. Can be directly connected to SIWAREX FTA. Detailed documentation and commissioning software included.



### Advantage of rectangular weighing platform

The supporting plate under the cover has threaded holes in for fastening your applicationspecific holder or receptacle for the weighing sample. When secured against turning, the position of the holder when in operation remains fixed.



Bellows

### Wash-down Option – IP66

The wash-down option, which is fitted at the factory, is a world-unique seal underneath the weighing plate which is activated by air pressure. It allows the module to be cleaned with a water jet and, at the same time, protects the weighing sensor against dynamic overloading, because in its activated state it blocks the weighing plate. You can see whether or not your weighing module is fitted with the wash-down option from the type designation.



Air connection

### WM124-X, WM123-X, WM503-X High Precision Weigh Modules

#### Customer benefits

- WM line – the sum of all advantages:
- Weighing range from 120 g to 510 g
- 0.1 mg readability (WM124)
- Directly connects to control systems
- Increased speed and accuracy of filling processes
- Optimized use of valuable materials
- Enhanced process safety
- Reduced cycle times
- Increased production volume
- Minimized downtimes
- Equipped for below-the-balance weighing
- Built-in adjustment weight

## Model Specific Data WM124-X/WM123-X/WM503-X

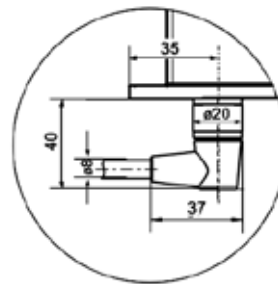
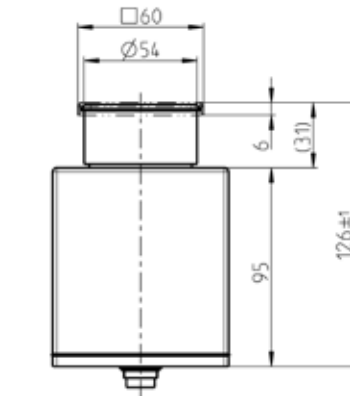
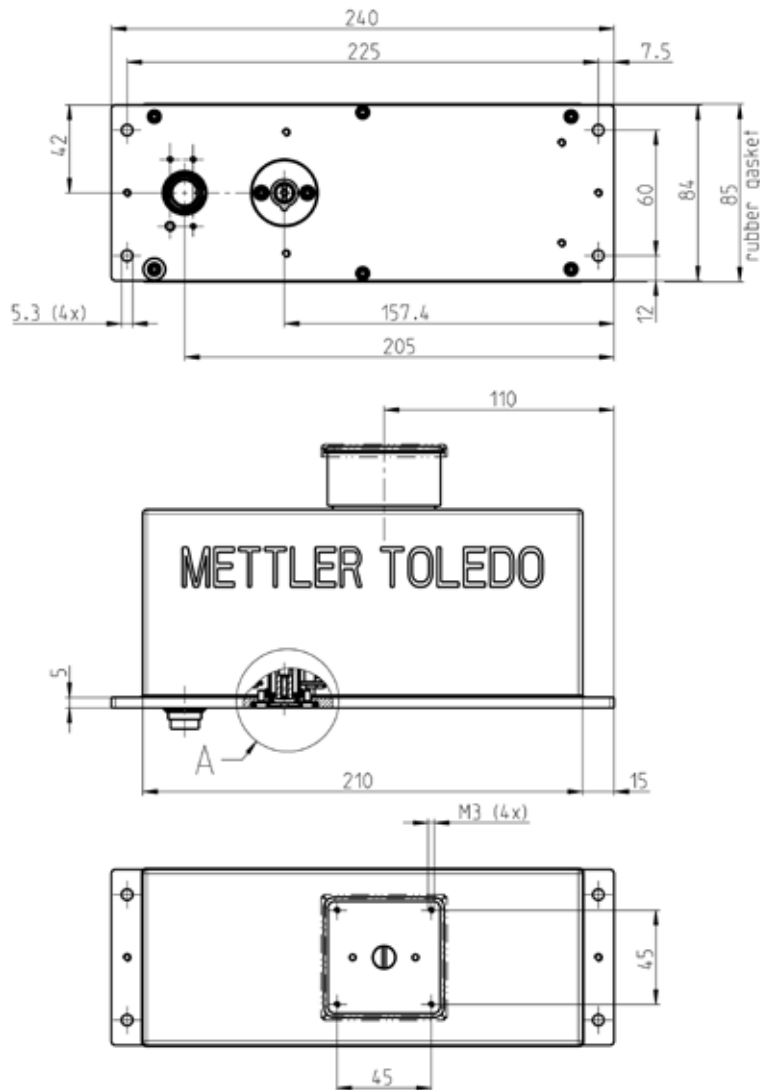
	Unit	WM124-X	WM123-X	WM503-X
Maximum load after switching on with base load (nominal maximum load)	g	121	121	510
Nominal readability	g	0.0001	0.001	0.001
Repeatability (sd); with factory settings and normal environmental conditions	g	0.0001	0.001	0.001
Linearity (10 .... 30 °C)	g	± 0.0004	± 0.001	± 0.002
Base load (equals weight of original weighing platform)	g	60 <sup>1)</sup>	60 <sup>1)</sup>	60
Maximum static overload in vertical direction without overload protection	g	400	400	1000
Underload starts from	g	-30	-30	-30
Theoretical maximum preload (additional to base load)	g	121	121	510
Maximum preload when adjusting / testing with built-in weight	g	60	60	250
Nominal value of built-in weight	g	60	60	160
Size of weighing platform with steel cover	mm	60 x 60	60 x 60	60 x 60
Size of weighing platform without cover	mm	58 x 58	58 x 58	58 x 58
Shortest weighing time for checking a weight of at least 5 % of the maximum weight with a deviation from the final value of	s	0.13	0.13	0.2
	g	0.01	0.01	0.01
Shortest weighing time for checking a weight of at least 5 % of the maximum weight with a deviation from the final value of	s	0.7	0.35	0.5
	g	0.0001	0.001	0.001
Sensitivity drift during warming-up phase (30 minutes)	g	0.002	0.01	0.01
Zero-point drift during warming-up phase (30 minutes)	g	0.005	0.02	0.03

<sup>1)</sup> The steel cover of the weighing platform (60 x 60mm) is NOT part of the base load. Available maximum load reduced by 38g.

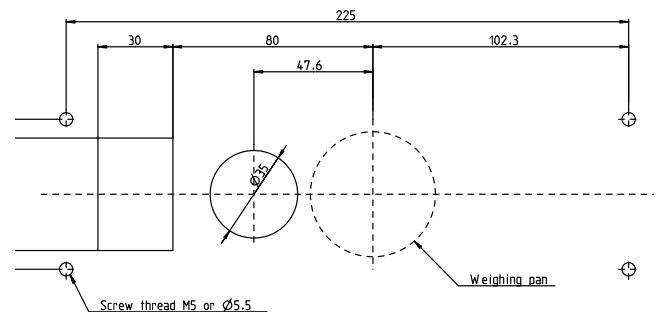
## General Specifications

<b>Compliance</b>	
Protection type according to ATEX 95	II 3G EEx nAL IIC T6
<b>Power supply</b>	
With regard to the power supply to the device and all other electrical connections (such as RS interfaces, digital inputs or outputs), steps must be taken to ensure that the nominal voltage is never exceeded by more than 40% during temporary interruptions of power (transient surge protection). See also approval documentation.	
Power supply voltage	10 to 28 VDC
<b>Power requirement at 24 VDC (typical)</b>	
In operation	2.5 W
During adjustment / test with built-in weight (approx. 5 s)	4 W
Power on (approx. 0.1 s)	20 W
<b>Electrical connection</b>	
Connector	19pin male, Typ Binder, series 423
Interfaces	2400 to 38400 baud, 7 or 8 bits; parity: no, even, odd, 1 or 2 stop bits; handshake: no, hardware, Xoff/Xon
RS-232C	bidirectional, full duplex
RS-422	bidirectional, full duplex, bus-capable termination with 120 ohms
Rel. air humidity (WM modules may only be used in enclosed interior spaces)	max. 85% Rh (at 30°C / 85°F)
<b>Air connection (wash-down version)</b>	
Tube diameter external	4 mm (5/32 inch)
Tube diameter internal	2.5 mm (1/10 inch)
Nominal (recommended)	0.5 bar (7.25 psi)
Air pressure maximum	1.0 bar (14.5 psi)
<b>IP protection (in operational state with weighing plate/ platform in place)</b>	
When weighing (protected with double-labyrinth)	IP54
When cleaning wash-down (seal activated with 0.5 bar air pressure)	IP66
Typical service life of seals (normal environmental conditions)	2 years
<b>Allowable ambient conditions</b>	
Operating temperature range	+10 to +30 °C
Allowable ambient temperature range	+5 to +40 °C (40 to 105 °F)
Height above mean sea level	max. 4000 m (13,330 feet)
Rel. air humidity (use of WM Modules only in enclosed interior spaces)	max. 85 % Rh (at 30°C/85°F)
<b>Materials</b>	
Housing, baseplate, weighing platform cover, flange	Stainless steel 1.4404 (316L)
Weighing plate support 58x58 mm	Aluminium, chrome plated
Seal between flange and upper part of housing	NBR 70 Shore A, black, qual. L8030
Seal between baseplate and upper part of housing	NBR, 60-65 Shore A, beige, qual. L7604
Bellows of wash-down version	NBR 50 Shore, black, antistatic, mixture no. 13-NBR/033-50A-0099
Surface roughness of housing	N7 or better

## Dimensions WM124-X/WM123-X/WM503-X (mm)



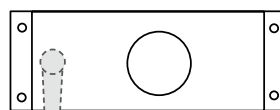
WM Hole pattern (mm)



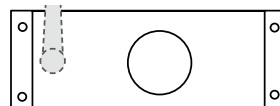
## Accessories

WM Cable 90H/10 (10m)  
11 138 864

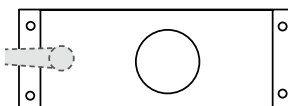
Top view



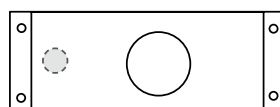
WM Cable 90B/10 (10m)  
11 138 865



WM Cable 90M/5 (5m)  
11 138 862  
WM Cable 90M/10 (10m)  
11 138 863



WM Cable 180M/5 (5m)  
11 138 860  
WM Cable 180M/10 (10m)  
11 138 861



Levelling bubble  
42 102 807



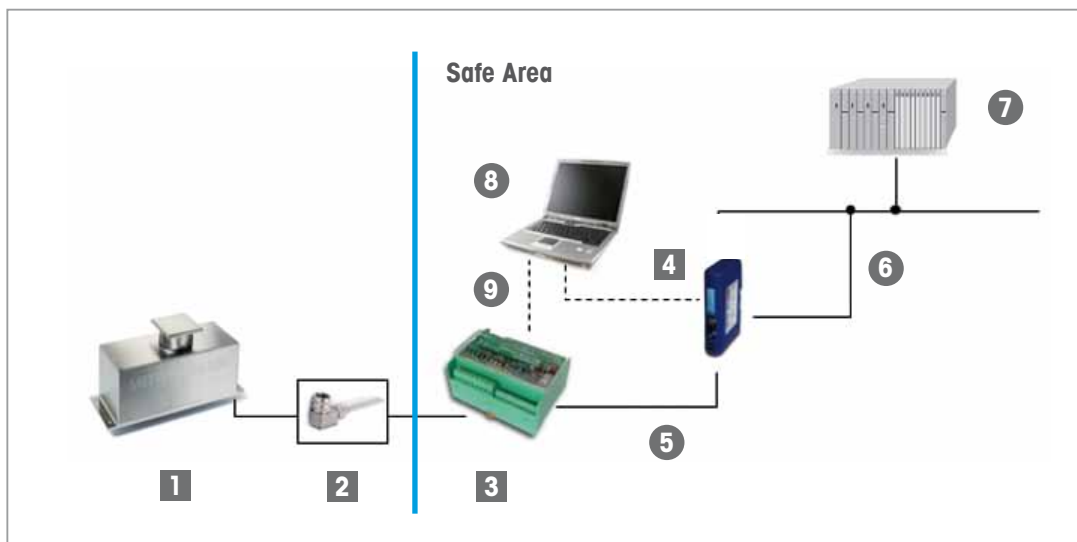
## Order Information

Model	Item number	Remarks
WM124-XL22	42 102 207	
WM124-XW22	42 102 208	Wash-down
WM123-XL22	42 102 205	
WM123-XW22	42 102 206	Wash-down
WM503-XL22	42 102 209	
WM503-XW22	42 102 210	Wash-down

## Scope of delivery

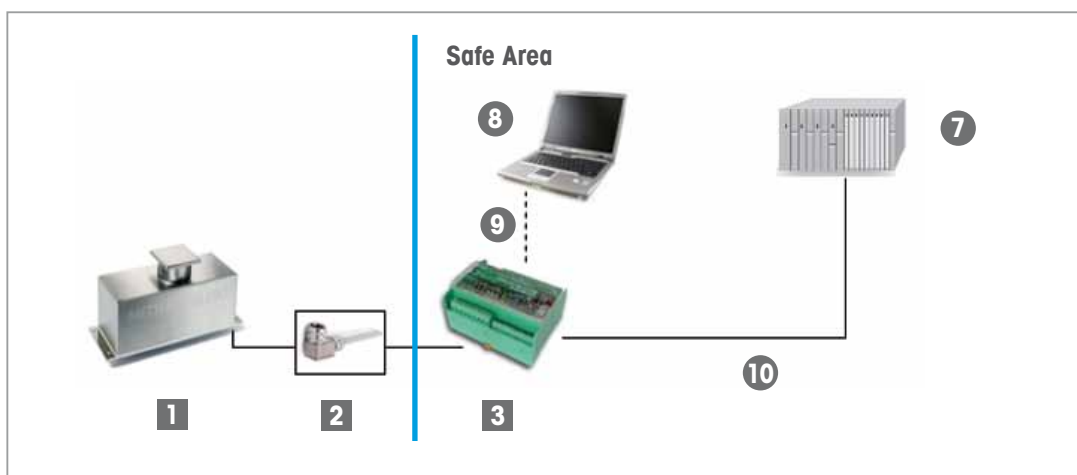
- Weigh module with weighing platform
- CD-ROM containing a terminal display software for PC's
- Manuals
- Steel cover for top weighing interface
- Plastic stopper to protect the cone opening
- Self-adhesive labels

## Typical Configurations



■ Available from  
METTLER TOLEDO

● Third party product



Pos	Item	Description	Item number
1	Platform	WMH	see order information
2	Connection cable	19 pin connector <-> open leads	see accessories
3	ConModule	Connection module	42 102 811
4	Profibus Module	Incl. connection cable for configuration	42 102 809
4	Profinet Module	Incl. connection cable for configuration	42 102 859
4	DeviceNet Module	Incl. connection cable for configuration	42 102 810
4	Ethernet IP Module	Incl. connection cable for configuration	42 102 860
5	Cable, 1m	D-Sub 9 male <-> open leads	11 141 979
6	Customer cable	Fieldbus cable	
7	PLC		
8	PC or Laptop	For configuration and service purpose	
9	Standard RS232 cable	DB9 male/female	
10	Customer cable	Connection to PLC through RS232 or RS422	



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For more information