

## Designed for Automation High Precision Weigh Modules



### Filling

38 updates per second, flexible configuration options, monitoring functions integrated into the sensor with digital in-/outputs for optimized filling processes.



### 100% Quality and Process Control

100% in-process precision weighing, directly at the critical process step with immediate readjustment of relevant parameters.



### Accessory

The round weighing pan can simply be replaced with the rectangular 60 x 60 mm platform, which is secured against rotation and allows customer specific configurations.



Bellows



Air connection

### 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.



### WM124, WM123, WM503

#### Designed for use in automated processes

- Weighing range of 120 g and 500 g
- 0.1 mg readability (WM124)
- Connects directly to control systems
- Increased speed and accuracy of filling processes
- Optimized use of valuable materials
- Enhanced process safety
- Increased production volume
- Reduced cycle times
- Minimized downtimes
- Equipped for below-the-balance weighing
- Built-in adjustment weight

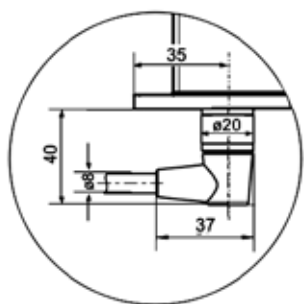
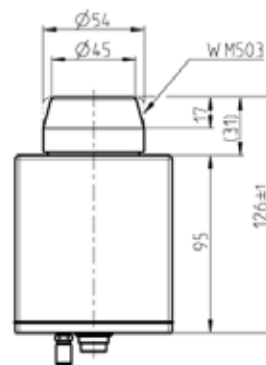
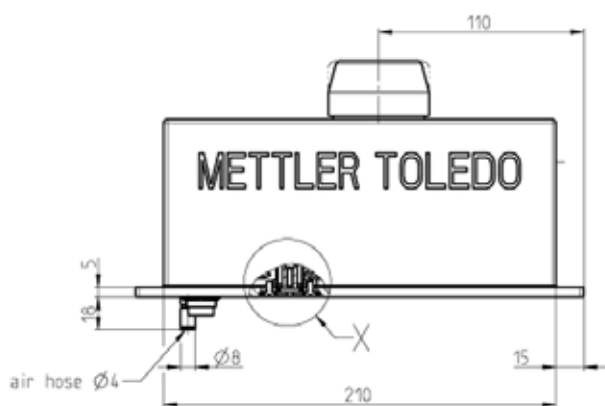
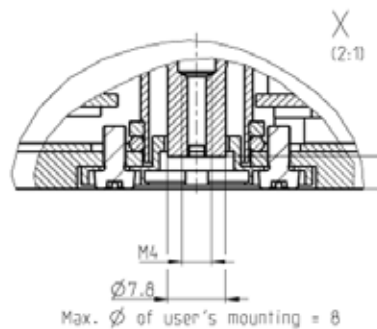
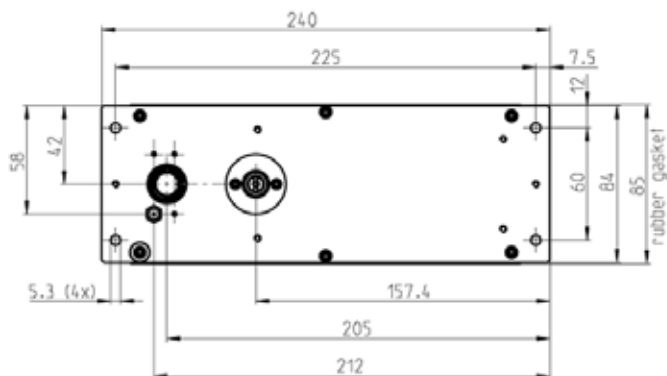
## Model Specific Data WM

	Unit	WM124	WM123	WM503
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 plate or weighing platform)	g	60	60	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
Diameter of weighing plate / size of weighing platform (standard)	mm	ø 45	ø 45	ø 55
Size of rectangular weighing platform (accessory)	mm	60 x 60	60 x 60	60 x 60
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

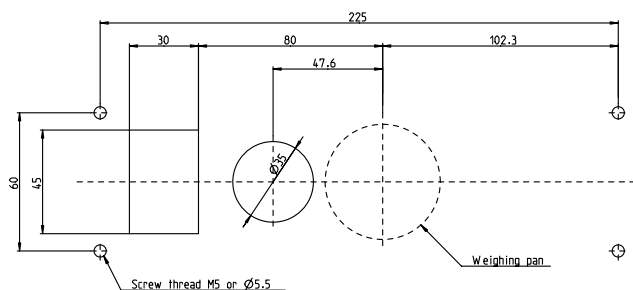
## General Specifications

<b>Power supply</b>	
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
Data transmission rate	up to 38 values per second
<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)
Relative air humidity (at 30°C / 85°F)	max. 85 % Rh
WM Modules may only be used in enclosed interior spaces	
<b>Materials</b>	
Housing, baseplate, weighing platform cover, flange	Stainless steel 1.4404 (316L)
Round weighing plate ø 45 or ø 55 mm	Aluminum, chrome plated
Round weighing plate support ø 43mm	Aluminium
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/WM123/WM503 (mm)



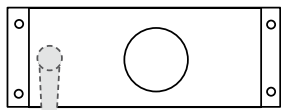
WM Hole pattern (mm)



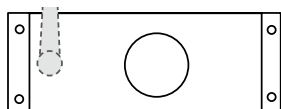
## Accessories

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

Top view



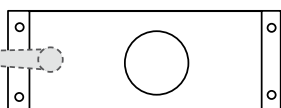
WM Cable 90B/10 (10m)  
11 138 865



WM platform  
60 x 60mm  
42 102 806



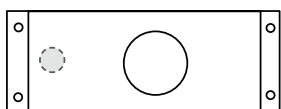
WM Cable 90M/5 (5m)  
11 138 862  
WM Cable 90M/10 (10m)  
11 138 863



WM pan R55  
42 102 805



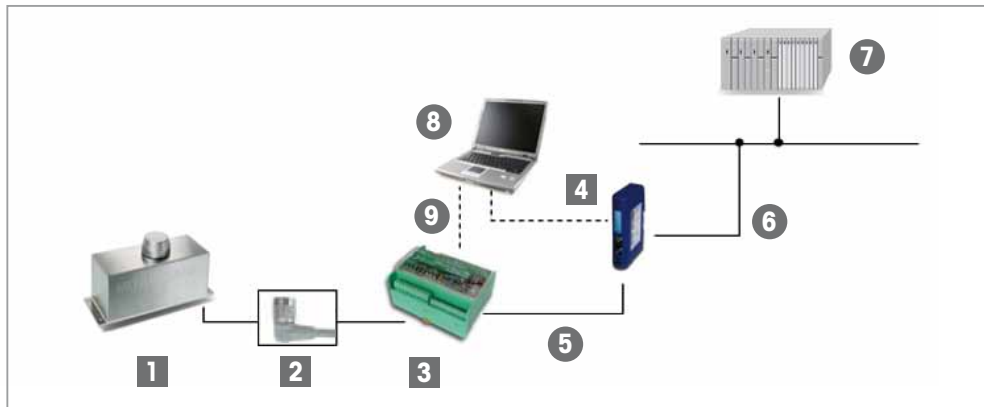
WM Cable 180M/5 (5m)  
11 138 860  
WM Cable 180M/10 (10m)  
11 138 861



Levelling bubble  
42 102 807

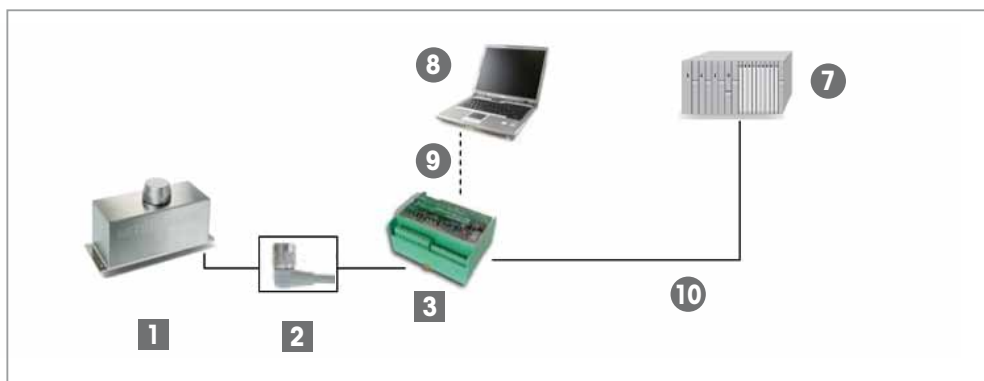


## Typical Configurations



■ Available from  
METTLER TOLEDO

● Third party product



Pos	Item	Description	Item number
1	Weigh Module	WM124, WM123, WM503	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, 1 m	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	

## Order Information

Model	Item number	Remarks
WM124-L22	42 102 000	
WM124-W22	42 102 001	Wash-down
WM123-L22	42 102 004	
WM123-W22	42 102 005	Wash-down
WM503-L22	42 102 008	
WM503-W22	42 102 009	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



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