

Designed for Automation High Precision for Zone 2 Ex



Automated precision weighing

Fast yet high-precision weighing in the milligram range in a fraction of a second, seamlessly integrated into automated 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



WM3002-X, WM6002-X High Precision Weigh Modules

Customer benefits

- Weighing range from 3 kg to 6 kg
- 0.1 mg readability
- Directly connects to control systems
- Increase speed and accuracy of filling processes
- Optimizes the use of valuable materials
- Enhances process safety by increasing precision
- Reduces cycle times
- Increases production volume
- Minimizes downtimes
- Equipped for below-the-balance weighing
- Built-in adjustment weight

Model Specific Data WM3002-X/WM6002-X

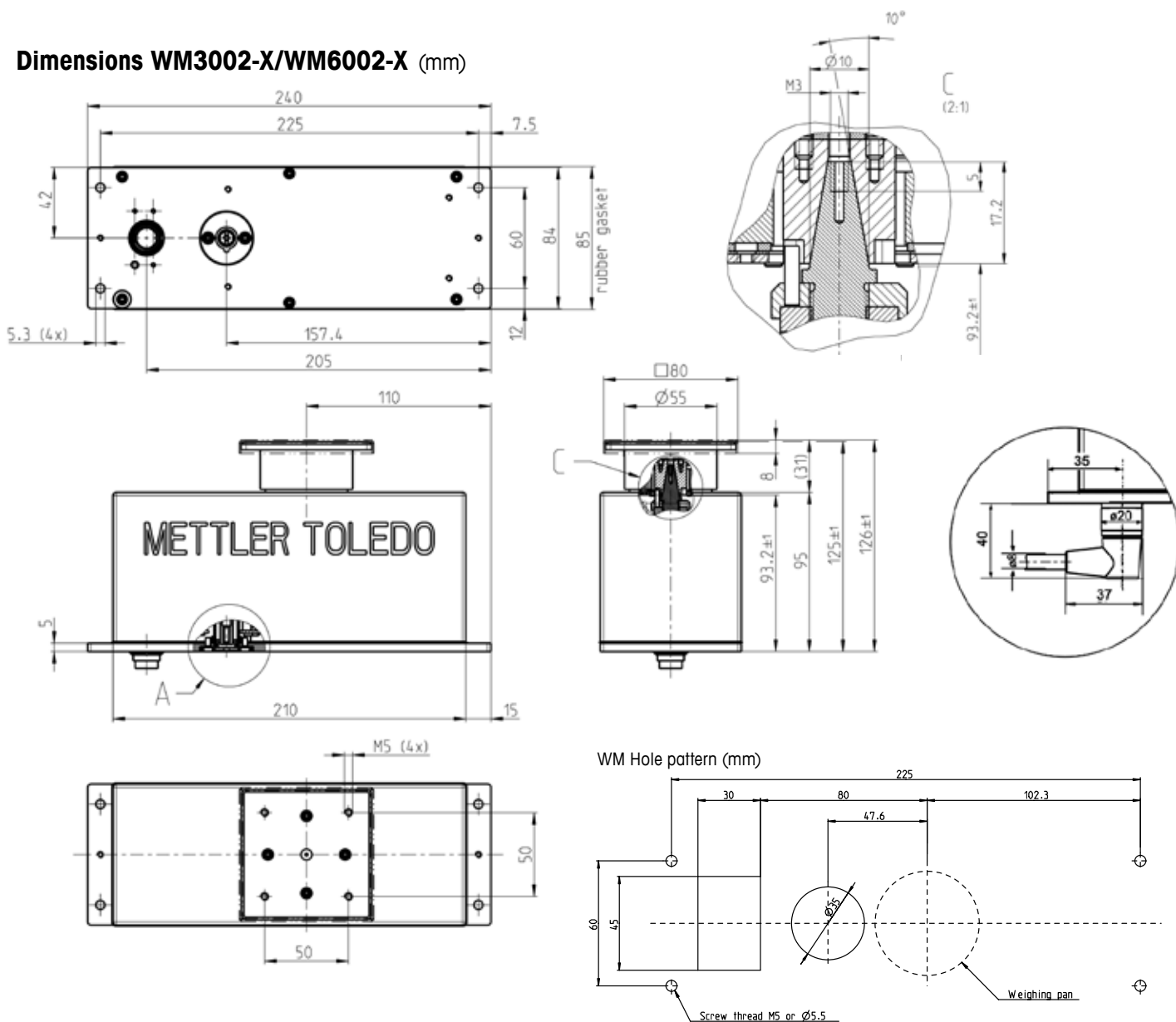
Power supply	Unit	WM3002-X	WM6002-X
Maximum load after switching on with base load (nominal maximum load)	g	3100	6100
Nominal readability	g	0.01	0.01
Repeatability (sd); with factory settings and normal environmental conditions	g	0.01	0.01
Linearity (10 30 °C)	g	± 0.03	±0.04
Base load (equals weight of original weighing platform)	g	260 ¹	260 ¹
Maximum static overload in vertical direction without overload protection	g	4500	9000
Underload starts from	g	-150	-150
Theoretical maximum preload (additional to base load)	g	3100	6100
Maximum preload when adjusting / testing with built-in weight	g	1500	3000
Internal weight loaded indirectly, equals a load of about	g	830	3600
Size of weighing platform with steel cover	mm	80x80	80x80
Size of weighing platform without steel cover	mm	78x78	78x78
Shortest weighing time for checking a weight of at least 5 % of the maximum weight with a deviation from the final value of	s	0.18	0.21
	g	0.1	0.1
Shortest weighing time for checking a weight of at least 5 % of the maximum weight with a deviation from the final value of	s	0.5	0.55
	g	0.01	0.01
Sensitivity drift during warming-up phase (30 minutes)	g	0.07	0.1
Zero-point drift during warming-up phase (30 minutes)	g	0.15	0.15

¹ The steel cover of the weighing platform (80x80mm) is part of the base load.

General Specifications

Compliance	
Protection type according to ATEX 95	II 3G EEx nAL IIC T6
Power supply	
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
Power requirement at 24VDC (typical)	
In operation	2.5 W
During adjustment / test with built-in weight (approx. 5 s)	4 W
Power on (approx. 0.1s)	20 W
Electrical connection	
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
Air connection (wash-down version)	
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)
IP protection (in operational state with weighing plate/ platform in place)	
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
Allowable ambient conditions	
Operating temperature range	+10 to +30 °C
Allowable ambient temperature range	+5 o +40 °C (40 to 105 °F)
Height above mean sea level	max. 4000 m (13,330 feet)
Rel. air humidity (WM Modules may only be used in enclosed interior spaces)	max. 85% Rh (at 30°C / 85°F)
Materials	
Housing, baseplate	Stainless steel 1.4404 (316L)
Weighing platform cover, flange	Stainless steel 1.4301
Weighing plate support 78x78mm	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

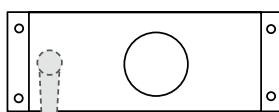
Dimensions WM3002-X/WM6002-X (mm)



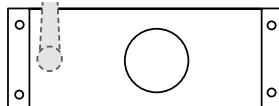
Accessories

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

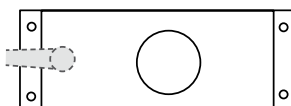
Top view



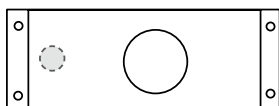
WM Cable 90B/10 (10m)
11 138 865



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



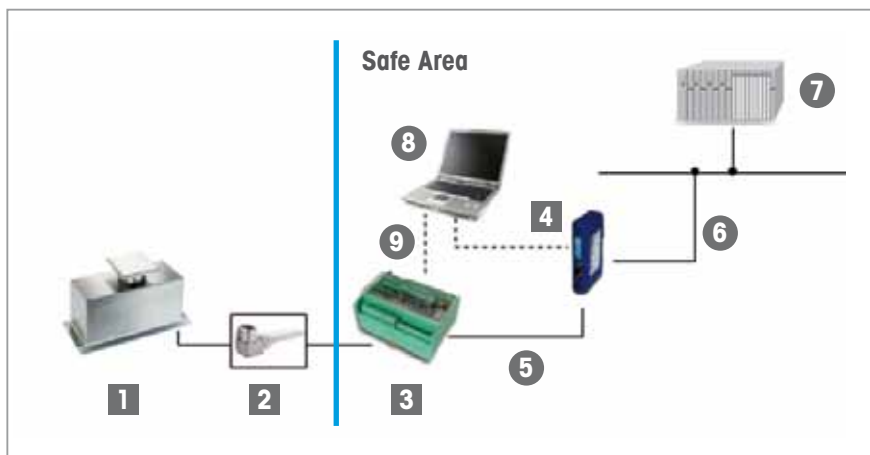
Order Information

Model	Item number	Remarks
WM3002-XL22	42 102 211	
WM3002-XW22	42 102 212	Wash-down
WM6002-XL22	42 102 213	
WM6002-XW22	42 102 214	Wash-down

Scope of delivery

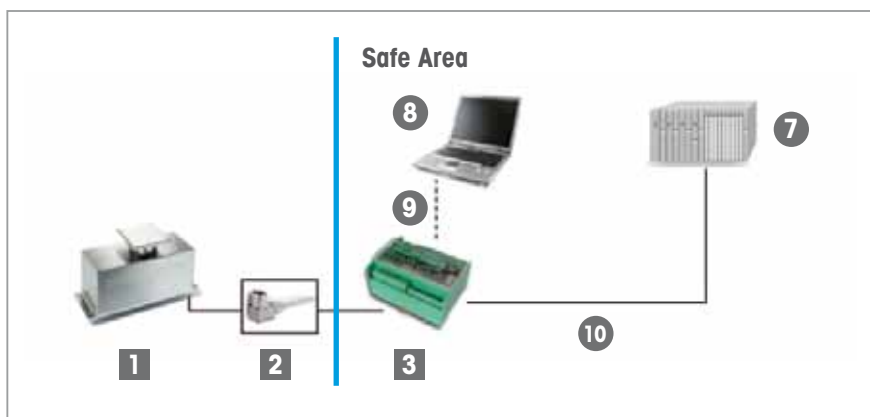
- Weigh module with weighing platform
- CD-ROM containing a terminal Display software for PC's
- Manuals
- Steel cover for top weighing interface
- Plastic stopper to protect the cone opening
- Self-adhesive labels

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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Subject to technical changes
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For more information