

Designed for Automation High Precision Weigh Modules



Automated precision weighing

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



100% Quality Control

Extremely short weighing times, compact design and flexible parameter definition for 100% control integrated directly into the production process.



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, in operation the position of the holder remains fixed.



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.



WM3002, WM6002

Designed for use in automated processes

- Weighing range of 3 kg and 6 kg
- 0.01 g readability
- 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 WM3002/WM6002

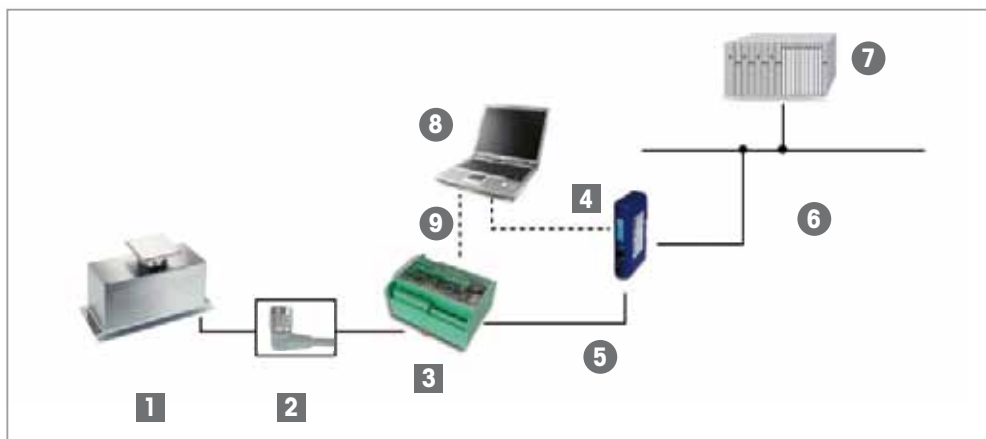
| Power supply | Unit | WM3002 | WM6002 |
|---|------|------------------|------------------|
| Maximum load after switching on with base load (nominal maximum load) | g | 3100 | 6100 |
| Nominal readability | g | 0.01 | 0.01 |
| Repeatability (sd); with factory settings and normal environmental conditions | g | 0.01 | 0.01 |
| Linearity (10 30 °C) | g | ± 0.03 | ± 0.04 |
| Base load (equals weight of original weighing plate or 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 (standard) | mm | 80x80 | 80x80 |
| 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 | 0.2 |
| | 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

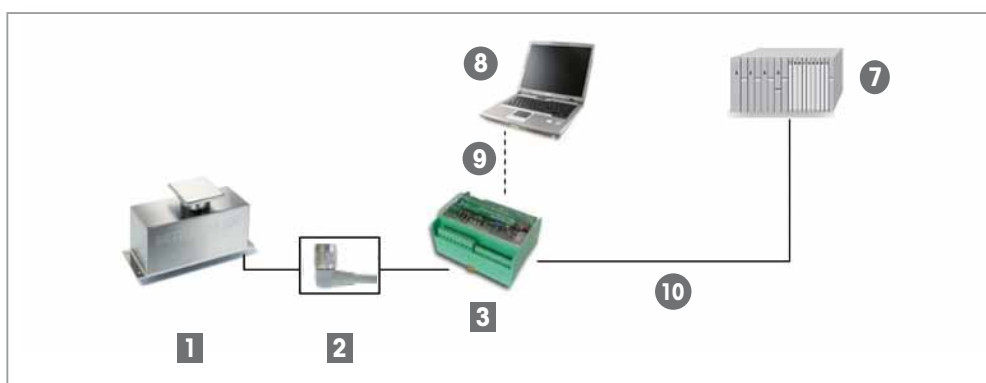
| | |
|---|--|
| Power supply | |
| Power supply voltage | 10 to 28 VDC |
| Power requirement at 24VDC (typical) | |
| In operation | 2.5 W |
| During adjustment / test with built-in weight (approx. 5s) | 4 W |
| Power on (approx. 0.1s) | 20 W |
| Electrical connection | |
| Connector | 19pin male, Typ Binder, series 423 |
| Interfaces | 2400 to 38,400 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 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 environmental conditions | |
| 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 (13330 feet) |
| Relative air humidity (at 30°C / 85°F) | max. 85% Rh |
| WM Modules may only be used in enclosed interior spaces | |
| Materials | |
| Housing, base plate, weighing platform cover, flange | Stainless steel 1.4404 (316L) |
| Weighing plate support 78 x 78 mm | Aluminium, chrome plated |
| Seal between flange and upper part of housing | NBR 70 Shore A, black, qual. L8030 |
| Seal between base plate 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 |

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 |
|------------|-------------|-----------|
| WM3002-L22 | 42 102 012 | |
| WM3002-W22 | 42 102 013 | Wash-down |
| WM6002-L22 | 42 102 026 | |
| WM6002-W22 | 42 102 027 | 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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Subject to technical changes
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