

The New Dimension

In Automated Precision Weighing



Ultra-Compact

The WMC weighing modules feature state-of-the-art weighing performance in a sensor with a revolutionary 1 inch width.



Precise

Do not let size deceive you: this sensor resolves 2,000,000 divisions with highest precision and quick stabilization.



High IP Rating

With the optional washdown module, an increased IP rating of IP54 becomes possible when weighing and IP56 when using the washdown protection. Thus, it becomes possible to weigh in a dusty environment and use a washdown cleaning process.



Expandable

Integrate these sensors as single units or as parallel weighing arrays and achieve highest throughput.



WMC

Ultra-Compact Precision Weigh Modules

Highest degree of miniaturization supports single or multi-sensor integration in precision weighing applications where installation space is a premium.

The WMC features a revolutionary design and is believed to be the smallest high-precision weighing sensor in the world. In-process control and embedded weighing is now possible in any critical operation in your instrument or system.

Model Specific Weighing Data

Type information	WMC15-SH	WMC25-SH	WMC24-SH
Nominal capacity (nominal load)	10 g	20 g	20 g
Maximum capacity	11 g	21 g	21 g
Maximum preload ^{M1)}	4 g	4 g	4 g
Readability	0.01 mg	0.01 mg	0.1 mg
Internal adjustment	-	-	-
Limit values ^{M2)}			
Repeatability (σ) (nominal load) \leq ^{M3)}	0.02 mg	0.02 mg	0.1 mg
Repeatability, with washdown module (σ) (nominal load) \leq ^{M3)}	0.05 mg	0.05 mg	0.1 mg
Linearity deviation \leq	0.05 mg	0.05 mg	0.2 mg
Linearity deviation, with washdown module \leq	0.1 mg	0.1 mg	0.2 mg
Eccentric load deviation (test load) \leq	0.12 mg (5 g)	0.12 mg (10 g)	0.4 mg (10 g)
Eccentric load deviation, with washdown module (test load) \leq	0.15 mg (5 g)	0.15 mg (10 g)	0.4 mg (10 g)
Sensitivity temperature drift \leq ^{M4)}	0.02 mg/°C	0.04 mg/°C	0.04 mg/°C
Typical values ^{M5)}			
Repeatability (σ) (nominal load) \leq	0.01 mg	0.01 mg	0.08 mg
Settling time \leq	0.6 s	0.7 s	0.6 s
Ambient conditions			
Compensated temperature range ^{M6)}	10 °C to 30 °C		
Operating temperature range	5 °C to 40 °C		
Storage temperature range	-20 °C to 70 °C		
Relative air humidity range ^{M6)}	20% to 80%		
Warm-up time after power-on ^{M6)}	60 minutes		

^{M1)} Maximum preload on top of "preload reference" weighing pan to maintain maximum capacity. ^{M2)} Applicable for stationary conditions within compensated temperature and relative air humidity range. ^{M3)} σ = standard deviation (99.7% of weighing results within $\pm 3 \sigma$). ^{M4)} Weighing tests according to OIML R76 A.5.3 at stationary conditions. ^{M5)} Applicable for stable environmental conditions and optimal filter settings. ^{M6)} Condition to meet the specified limit values.

General Data

Electrical connection

Power supply	Input: 100–240 V AC, 50/60 Hz, 0.5A; Output: 12 V DC, 2 A
Communication interface	RS232; Ethernet (optional)
Maximum weight update rate	92 values/s and 23 values/s ⁶¹⁾

IP protection

Module during weighing	IP30 / IP54 ⁶²⁾
Module during cleaning ⁶²⁾	IP56
Electronic unit	IP40

Materials

Weighing pan/platform	Stainless steel (1.4404 / 316L); Adapter weighing pan: PEEK
Weigh module housing	Stainless steel (1.4404 / 316L)
Electronic unit housing	Stainless steel (1.4404 / 316L)

Air connection

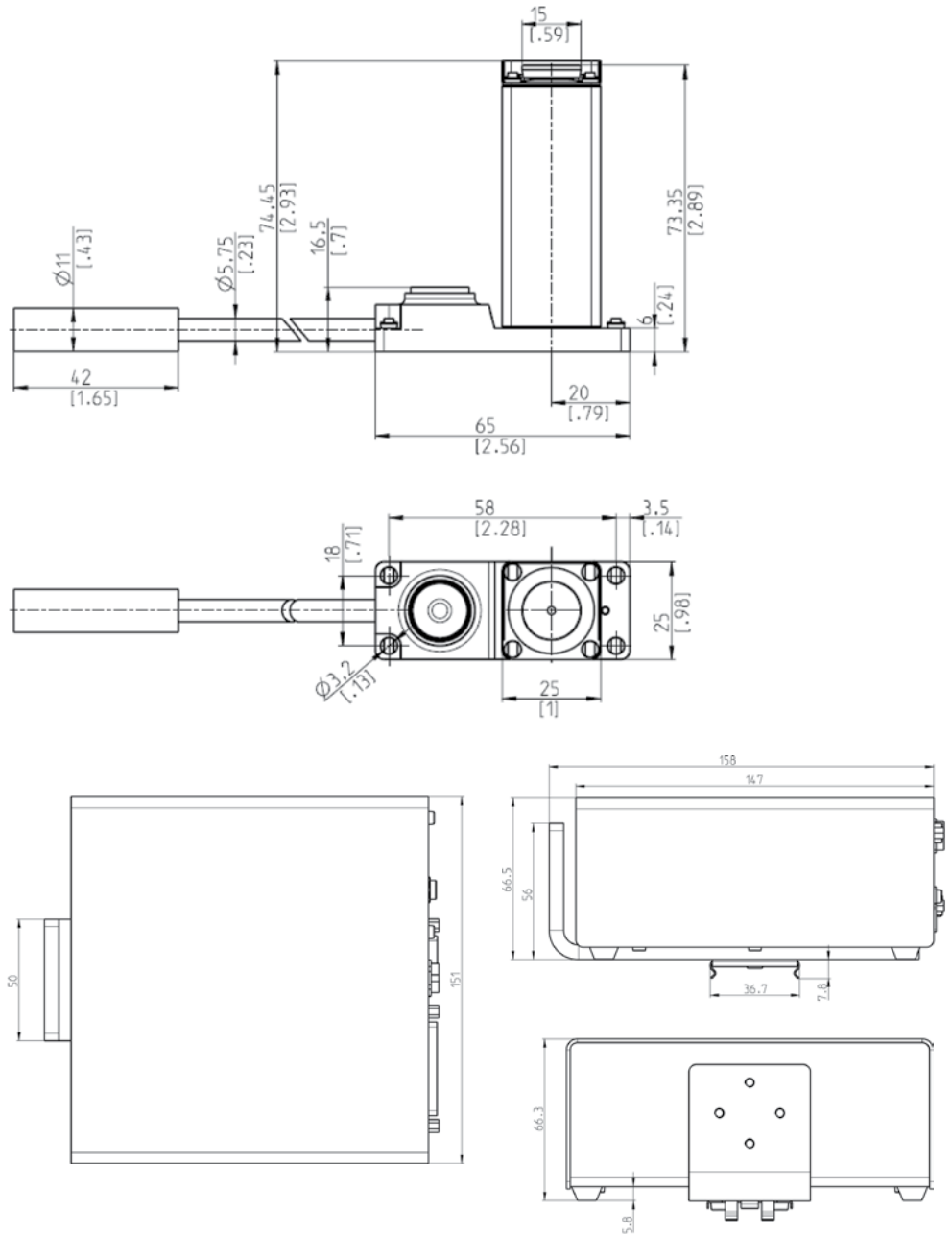
Air pressure for washdown ⁶²⁾	0.6 \pm 0.1 bar(g)
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⁶¹⁾ In combination with a terminal. ⁶²⁾ Only with optional washdown configuration.

Scope of Delivery

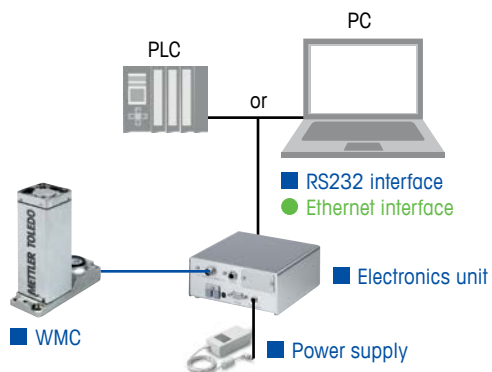
Item	Description
WMC	Load cell with 3 m cable
Weighing pan (preload reference)	$\varnothing = 15$ mm, without threaded holes
Adapter weighing pan	$\varnothing = 14$ mm
Electronic unit	Including mounting bracket and DIN clip
Power supply	Including country specific power cable
Production certificate	
Declaration of conformity	
Quick guide	

Drawings (mm) / [inch]

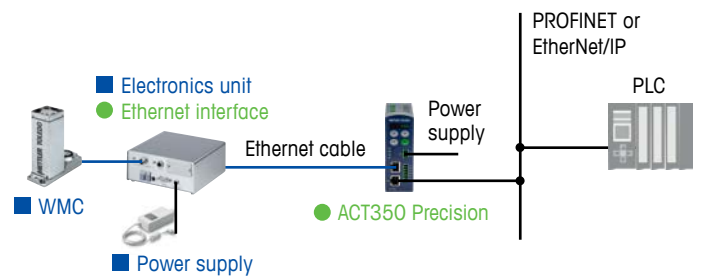


Typical Configurations

Serial or Ethernet interface configuration










Automation network configuration



- Scope of delivery
- Accessories from METTLER TOLEDO

Accessories

Item	Description	Item number	Picture
Washdown module	Including washdown head, washdown adapter weighing pan, O-ring, sealing gasket, 4 x M2.5 (Torx T8)	302 363 76	
Stainless steel cover	Including O-ring, 4 x M2.5 (Torx T8) to attach washdown head	302 523 74	
Washdown adapter weighing pan	With threaded hole	302 786 48	
Terminal SWT	Monochrome touch screen display (including 0.575 m and 2.0 m terminal cables, protective cover)	111 210 57	
Interface second RS232C	Additional RS232C interface in electronic unit	111 325 00	
Interface Ethernet	Additional Ethernet interface in electronic unit	111 325 15	
Single weights	5 g, OIML F1, including plastic box, certificate	304 063 96	
	10 g, OIML F1, including plastic box, certificate	304 063 97	
	20 g, OIML F1, including plastic box, certificate	304 063 98	
Weighing tweezers	Straight tips, for weights 1 mg – 50 g, length 130 mm	000 159 00	
	Straight tips, for weights 1 mg – 50 g, length 140 mm	111 165 43	
	Straight tips, for weights 1 g – 1 kg, length 223 mm (MT logo)	111 165 44	
	Bent tips, for weights 1 g – 200 g, length 130 mm	111 165 40	
	Bent tips, for weights 1 g – 1 kg, length 210 mm	000 159 01	

Order Information

Model	Item number
WMC25-SH	111 490 00
WMC15-SH	111 490 09
WMC24-SH	111 490 02

www.mt.com/WMC

For more information



METTLER TOLEDO Group

Industrial Division

Local contact: www.mt.com/contacts

Subject to technical changes

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Document No. 30249883 A

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