

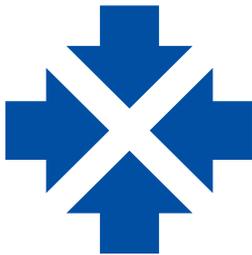
Designed for Automation

Tailored for Multi-Line Weighing



Compact Size

The small width of 25 mm enables to build arrays with a minimal pitch to allow parallel multi-line weighing on small space to achieve highest throughput in production and research.



All Inclusive

Fieldbus connectivity, power over Ethernet, calibration weight and electronics. All parts are incorporated in the rugged stainless steel housing with optional IP65 protection for cleaning.



Overload Protection

The weigh module benefits from comprehensive overload protection. This protects the weigh module in the event of malfunction of handling devices or mistakes during installation.



Functionality Test

The module can be verified at any time with the internal calibration weight. The adapters on the weighing pan don't have to be removed if they weigh less than 70 g.



PROFINET
EtherNet/IP

WMF

High-Precision Weigh Modules

Industrial automation applications require multiple lines connected to a single control system, which makes it necessary to have sensors that can support that requirement.

WMF weigh modules are designed with that in mind and are tailored for multi-line automation systems. Fully integrated Industrial Ethernet interface (EtherNet/IP and PROFINET IO RT) allows integration into a real-time automation network.

Model Specific Weighing Data

Type information	WMF204C	WMF303C
Nominal capacity (nominal load)	200 g	300 g
Maximum capacity	220 g	320 g
Maximum preload ^{M1)}	50 g	25 g
Readability	0.1 mg	1 mg
Internal adjustment	✓	✓

Limit values ^{M2)}

Repeatability (σ) (nominal load) \leq ^{M3)}	0.13 mg	1 mg
Linearity deviation \leq	0.4 mg	2 mg
Eccentric load deviation (test load) \leq	1 mg (100 g)	2 mg (100 g)
Sensitivity temperature drift \leq ^{M4)}	0.3 mg/°C	0.45 mg/°C

Typical values ^{M5)}

Repeatability (σ) (nominal load) \leq	0.08 mg	0.4 mg
Settling time \leq	0.4 s	0.4 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)}	45 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 filler settings. ^{M6)} Condition to meet the specified limit values.

General Data

Electrical connection

Power supply	Power over Ethernet (PoE) Class 1 PD (< 3.84 W) Mode/Alternative A (Phantom Power)
Electrical connection	M12, 4 pins, D-coded, male
Communication interface	EtherNet/IP PROFINET IO RT
Maximum weight update rate	92 values/s and 366 values/s ⁶¹⁾

IP protection

Module during weighing	IP44
Module during cleaning ⁶²⁾	IP65

Materials

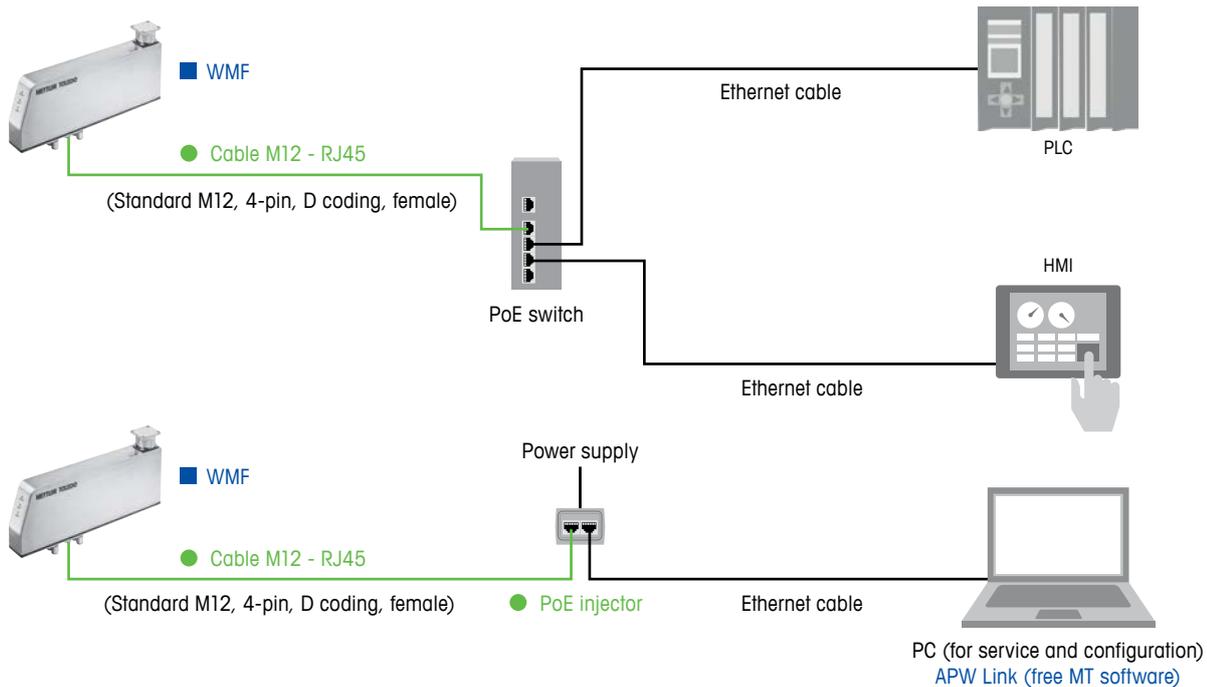
Weighing pan/platform	Stainless steel (1.4404 / 316L)
Weigh module housing	Stainless steel (1.4404 / 316L)
Cable	-
Seals	FPM, FDA compliant
Typical service life of seals	2 years
Washdown bellows ⁶²⁾	Silicone, FDA compliant

Air connection

Tube diameter external	4 mm (5/32 inch)
Air pressure for washdown ⁶²⁾	0.6 +/-0.1 bar(g)
Air pressure for cooling ⁶³⁾	max. 1 bar(g)

⁶¹⁾ Fast Weight Channel. ⁶²⁾ Only with optional washdown configuration. ⁶³⁾ Refer to engineering note "Active Cooling Function" for more information.

Typical Configurations



■ Scope of delivery

● Accessories from METTLER TOLEDO

Accessories

Item	Description	Item number
Weighing pan	24 x 30 mm, without threaded holes	303 001 73
Cable M12 - RJ45	Connection cable for weigh module (2 m, PUR)	303 261 12
Cable M12 - RJ45	Connection cable for weigh module (5 m, PUR)	304 019 00
Cable M12 - RJ45	Connection cable for weigh module (10 m, PUR)	304 019 20
Air connectors	For cooling function (2x)	303 071 94
PoE injector	Power supply for the weigh module	303 261 11
Ethernet/USB converter	To connect a service PC	303 261 10

Order Information

Module	Capacity/Resolution	Washdown	Interface type	
			EtherNet/IP	PROFINET IO RT
WMF204C	220 g / 0.1 mg	Yes	302 822 30	302 822 32
	220 g / 0.1 mg	No	302 822 19	302 822 31
WMF303C	320 g / 1 mg	Yes	302 822 34	302 822 36
	320 g / 1 mg	No	302 822 33	302 822 35

METTLER TOLEDO Group

Industrial Division

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www.mt.com/WMF

For more information



Subject to technical changes

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Document No. 30259932 A

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