

SPD Weigh Modules Slim, Economic, Basic



Save Valuable Machine Space

The compact width of 84 mm enables a small pitch allowing parallel multi-line weighing in limited space.



High Capacity with Reliable Precision

With a high capacity of 12 kg, SPD is perfect for filling various battery cells while ensuring high precision with a readability of 0.01 g.



Simple Integration and Configuration

Our free of charge APW-Link software for parameterization, diagnostics and configuration backup makes getting started easy.



Minimize Contamination Risk

Strict content control of zinc and copper in surface materials reduces the risk of cross-contamination in Li-ion battery production.



SPD Weigh Modules

Cost-Efficient, High-Capacity Solution

The SPD weigh modules offer multi-line weighing for higher capacity battery filling applications.

Main features:

- Weighing range up to 12 kg
- Readability of 10 mg
- Multiline installation (85 mm pitch distance)
- Power supply of 12–24 VDC
- RS232 and RS422 interface
- Update rate of 92 Hz
- Internal adjustment function
- Integrated electronics

Model specific weighing data

Type information	SPD12002	SPD12002-C
Nominal capacity / nominal load	12 kg	12 kg
Maximum capacity	12.2 kg	12.2 kg
Maximum preload ^{M1)}	200 g	200 g
Maximum preload for internal adjustment	—	6 kg
Readability	0.01 g	0.01 g
Internal adjustment	—	✓

Limit values ^{M2)}

Repeatability (σ) (@nominal load) ^{M3)} ≤	0.01 g	0.01 g
Linearity deviation ≤	0.03 g	0.03 g
Eccentric load deviation (@test load) ≤	0.03 g (4 kg)	0.03 g (4 kg)

Typical values ^{M4)}

Repeatability (σ) (@nominal load) ≤	0.008 g	0.008 g
Repeatability (σ) (@ ≤ 2 kg) ≤	0.002 g	0.002 g
Settling time, nominal ^{M5)} ≤	2.5 s	2.5 s
Settling time, fast ^{M6)} ≤	1 s	1 s

Ambient conditions

Compensated temperature range ^{M7)}	10°C to 30°C (50°F to 86°F)
Operating temperature range	5°C to 40°C (41°F to 104°F)
Storage temperature range	–20°C to 70°C (–4°F to 158°F)
Relative air humidity range ^{M7)}	20% to 80%
Warm-up time after power-on ^{M7)}	30 min

^{M1)} Maximum preload on top of weighing pan to maintain maximum capacity.

^{M2)} Applicable for stationary conditions within compensated temperature and relative air humidity range.

^{M3)} σ = standard deviation (68% of weighing results within $\pm\sigma$).

^{M4)} Applicable for stable environmental conditions and optimal filter settings.

^{M5)} Time until weight value is repeatable (measured at nominal load).

^{M6)} Time until weighing signal is within $\pm 2 \times$ readability of end value (measured at 1/4 nominal load).

^{M7)} Condition to meet the specified limit values.

General data

Electrical connection

Power supply	12–24 V DC
Electrical connection	M12, 12 pins, A-coded, male
Communication interface	RS232, full-duplex, 2.4 to 38.4 kBaud RS422 full-duplex, 2.4 to 38.4 kBaud
Maximum weight update rate	92 values/s

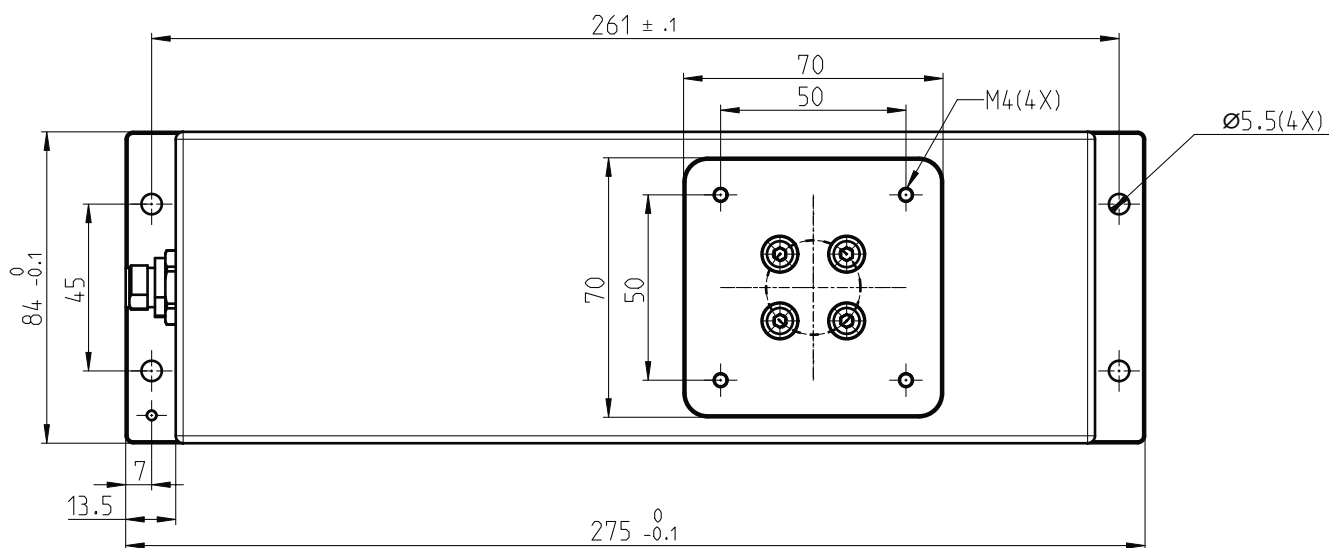
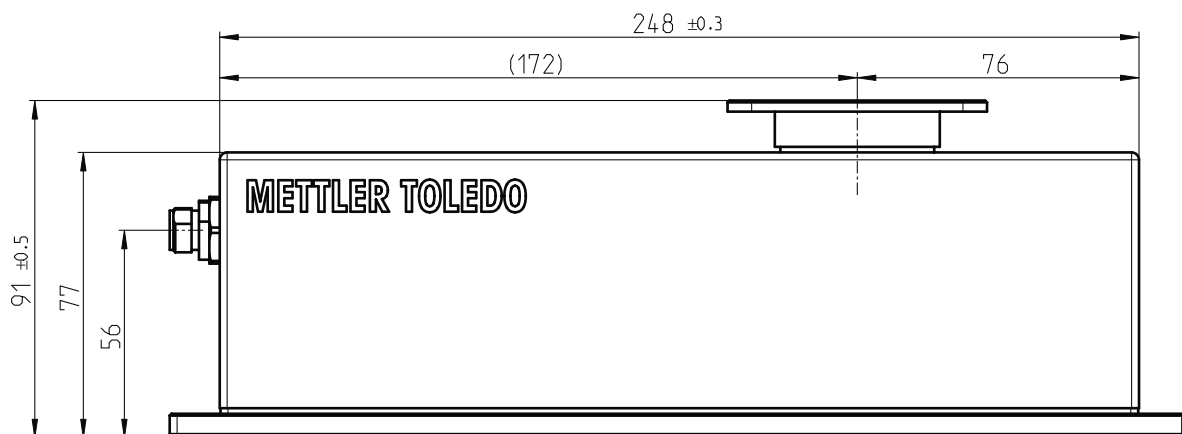
IP protection

Module during weighing	IP42
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Materials

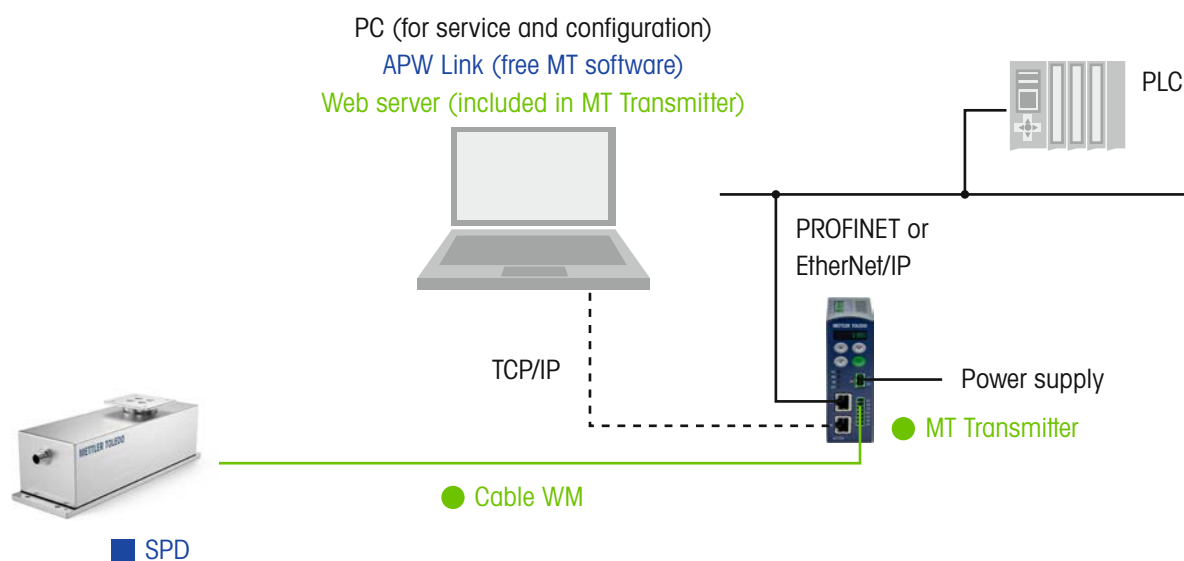
Weighing pan/platform	Stainless steel (1.4307 / 304L)
Weigh module housing	Stainless steel (1.4307 / 304L)
Seals	NBR
Typical service life of seals	2 years

Drawings (mm)



Typical configurations

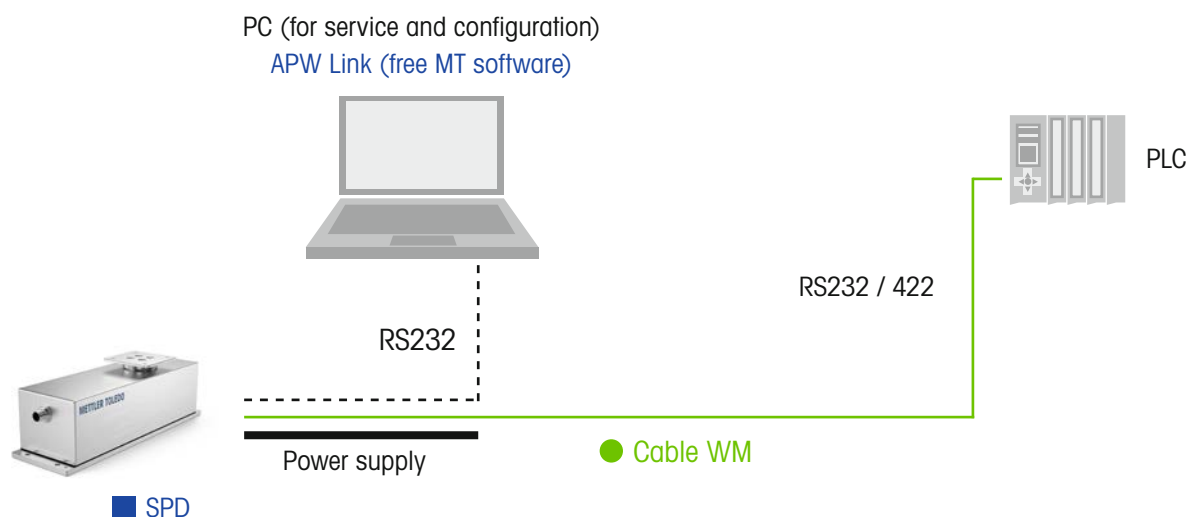
Automation network configuration



■ Scope of delivery

● Accessories from METTLER TOLEDO

Serial interface configuration





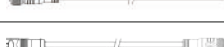



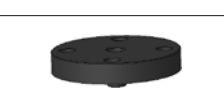
■ Scope of delivery

● Accessories from METTLER TOLEDO

Scope of Delivery

Item	Description
SPD	Weigh module (incl. adapter weighing pan and spacer)
Safety Information	-
Quick Guide	-
Production certificate	-
Declaration of Conformity	-

Accessories

Item	Description	Item number	Picture
Cable WM	12p 1.5 m (M12f 90° – open leads)	30295819	
Cable WM	12p 5.0 m (M12f 90° – open leads)	30295821	
Cable WM	12p 3.0 m (M12f 180° – open leads)	30524860	
Cable WM	12p 0.3 m (M12f 90° – M12m 180°)	30524874	
Cable WM	Y-Cable 12p 1.9 m (M12f 90° – DE-9 and DC Jack Ø 5.5/2.5 mm)	30489564	
Adapter Weighing Pan	Spare part	31058090	
Spacer (Weighing Pan)	Spare part	31058091	

Order Information

Module	Description	Item number
SPD12002	without internal adjustment function	30966617
SPD12002-C	with internal adjustment function	30937639

www.mt.com/SPD

For more information

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Subject to technical changes
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