High-Precision Floor Platforms

Designed for Automation

High-Resolution Weighing Platforms

Filling

GMP-compatible filling of active substances – 92 updates per second, flexible configuration options and monitoring functions for optimum filling processes.

Smart Weigh Module Technology

The weigh module, with Monobloc technology, is at the core of the PFK9 weighing platforms and guarantees the highest precision and reliability. A robust weigh module housing features integrated overload protection and durable mechanical interfaces. This ensures stable weight values for many years of intensive use.

Connect to PLC

All platforms can easily be connected to METTLER TOLEDO Transmitters for easy integration into automated environments. This allows machine builders to standardize on PFK platforms for weighing connected to PLC systems.

Hazardous Environments

When working in a hazardous environment, safety is key. The PFK9 weighing platforms are approved for the use in hazardous areas for category 2 and 3 as well as FM division 1 and 2 for top performance in gaseous and dusty environments.

PFK9-APW Floor Platforms

Accurate – Reliable – Robust – Versatile

Accurate weighing helps you manage raw materials, ensure compliance with regulations and improve your product quality. For floor scale applications that require reliability with the best accuracy available, the PFK9 weighing platforms provide industry-leading performance. The wide range of platforms with four nominal capacities from 300 to 3000 kilograms in four different sizes makes it suitable for a variety of applications and industries. The PFK9 Weighing platforms provide benefits such as

- Up to 750'000d resolution
- Directly connects to control systems
- Increases speed of filling processes with up to 92 updates per second
- For safe as well as hazardous areas category 3 / division 2 and category 2 / division 1
- IP66/IP68 ingress protection
- Minimizes downtimes by checking the platform periodically with the internal weight

METTLER TOLEDO

Model Specific Weighing Data




Models		**C**		**D**		**E**		**ES**	
	Unit	**C300**	**C600**	**D600**	**D1500**	**E1500**	**E3000**	**ES1500**	**ES3000**
Nominal capacity / nominal load	kg	300	600	600	1500	1500	3000	1500	3000
Resolution									
Non-approved, single range									
750′000d / 600′000d	g	0.5	1	1	2	2	5	2	5
300′000d / 240′000d	g	1	2	2	5	5	10	5	10
75′000d / 60′000d	g	5	10	10	20	20	50	20	50
Zero-setting and preload range									
Zero-setting range	kg ±	Full range							
Preload range	kg	54	45	108	270	270	300	270	300
Maximum static safe load									
Central load	kg	1000	1000	3500	3500	4500	4500	4500	4500
Side load	kg	650	650	2300	2300	3000	3000	3000	3000
Corner load	kg	330	330	1150	1150	1500	1500	1500	1500
Typical values [1]									
Repeatability (s) (@nominal load) [2]	g	0.6	1.2	2	4	5	10	5	10
Linearity deviation (@1/2 nominal load)	g	±2.4	±4.8	±8	±16	±20	±40	±20	±40
Typical eccentric deviation (@1/3 nominal load in the middle of one quadrant)									
Single range	g	7	14	14	35	35	70	35	70

[1] at room temperature and stable environmental conditions without vibration and draft, with automated weight placement
[2] s= standard deviation (68% of weighing results within ± s)

General Data

Models			**C**	**D**	**E**	**ES**
Material						
Platform material	Stainless steel AISI304	Standard	•	•	•	•
	Mild steel powder coated, blue	Standard	•			
	Mild steel galvanized	Standard		•	•	•
Platform surface	Stainless steel AISI304, glass bead blasted Ra < 5 µm	Standard	•	•	•	•
Load plate material	Stainless steel AISI304	Standard	•	•	•	•
	Mild steel galvanized	Option	•	•	•	•
	Stainless steel AISI304, raisable	Option		•	•	•
Load plate surface	Stainless steel AISI304, glass bead blasted, Ra < 5 µm	Standard	•	•	•	•
	Stainless steel brushed Ra < 1 µm	Option		•	•	•
	Stainless steel AISI304 pattern	Option		•	•	•
Foot	Desmopan (DP)	Standard	•			
	Stainless steel AISI304	Standard		•	•	•
Membrane	Silicone	Standard	•	•	•	•
Connecting cable	Polyurethane (PU)	Standard	•	•	•	•
Connecting cable hazardous area cat. 2, div. 1 and cat. 3, div. 2	Thermoplastic Polyether Polyurethan TPE-U	Standard	•	•	•	•
Weigh module	Stainless steel AISI304, brushed, e-polished	Standard	•	•	•	•
Power supply voltage						
12 to 24 V DC nominal (10 – 29 V DC)						
Ingress protection						
All PFK9-APW weighing platforms	IP66/68	Standard	•	•	•	•

Hazardous area approval [1)]

ATEX / IECEx	3G / 3D - Load Cell MPGI: BVS 17 ATEX E 131 X* / IECEx BVS 16.0064X* II 3G Ex nA IIC T6 Gc, II 3D Ex tc IIIC T60°C Dc, -10°C ≤ Ta ≤ +40°C	Option	•	•	•	•
	2G / 2D - Load Cell MPXI: BVS 10 ATEX E 026 X* / IECEx BVS 17.0018X* II 2G Ex ib IIC T4 Gb, II 2D Ex ib IIIC T50°C Db, -10°C ≤ Ta ≤ +40°C	Option	•	•	•	•
CFMUS	Division 2 / Zone 2/22 Load Cell MPGI: FM17US0139X* / FM17CA0075X* NI Class I, II, III Division 2 Groups A, B, C, D, E, F, G T6 Class I Zone 2 IIC T6 Zone 22 IIIC T60°C -10°C ≤ Ta ≤ +40°C	Option	•	•	•	•
	Division 1 / Zone 1/21 Load Cell MPXI: FM17US0324X* / FM17CA0163X* IS Class I Division 1 Groups A, B, C, D T4 IS Class II, III Division 1 Groups E, F, G T6 Class I Zone 1 AEx/Ex ib IIC T4 Zone 21 AEx/Ex ib IIIC T50°C -10°C ≤ Ta ≤ +40°C	Option	•	•	•	•

* Compliance document download: **www.mt.com/PCDS**

Resolution (The resolution is dependent on the weighing platform model.)

Non-approved, 1 x 60'000d / 1 x 75'000d		Standard	•	•	•	•
Non-approved, 1 x 300'000d / 1 x 240'000d		Option	•	•	•	•
Non-approved, 1 x 600'000d / 1 x 750'000d		Option	•	•	•	•

Temperature range

Non-approved application

In operation	-20 °C to 60 °C (-4 °F to 140 °F)
In operation cat. 2 div. 1	-10 °C to 40 °C (14 °F to 104 °F)
For storage	-20 °C to 70 °C (-4 °F to 158 °F)

Warm-up time (dependent on resolution)

Typically 30 min.

Scale interfaces

RS232, RS422	MT – SICS command set	Standard	•	•	•	•

Cable length

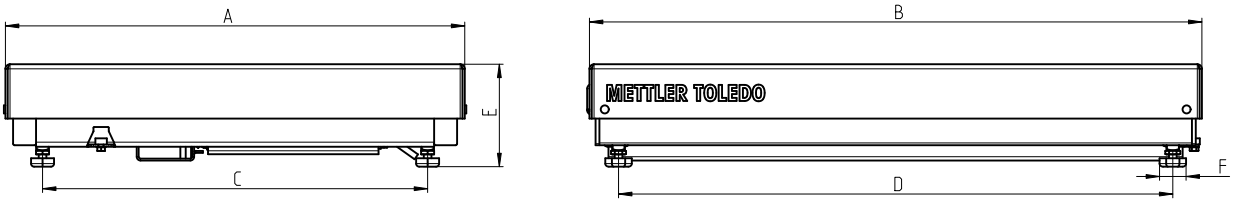
Safe area: cable M12, 12-pin - open leads, 10 m		Option	•	•	•	•
Category 2 / div. 1: cable M12, 6-pin, 5 m, 10 m, 20 m		Option	•	•	•	•
Category 3 / div. 2: cable M12, 12-pin - open leads, 10 m		Option	•	•	•	•

Model designation examples:

PFK989APW-C600	Floor platform with frame in stainless steel, direct connectivity version, C-size (800 mm x 1000 mm), nominal capacity 600 kg
PFK988APW-E3000	Floor platform with frame in mild steel galvanized, direct connectivity version, E-size (1250 mm x 1500 mm), nominal capacity 3000 kg

[1)] In the hazardous area, you can use powder coated platforms only if intense electrostatic charges do not accumulate on the platform during the application or process.

Drawings (mm)

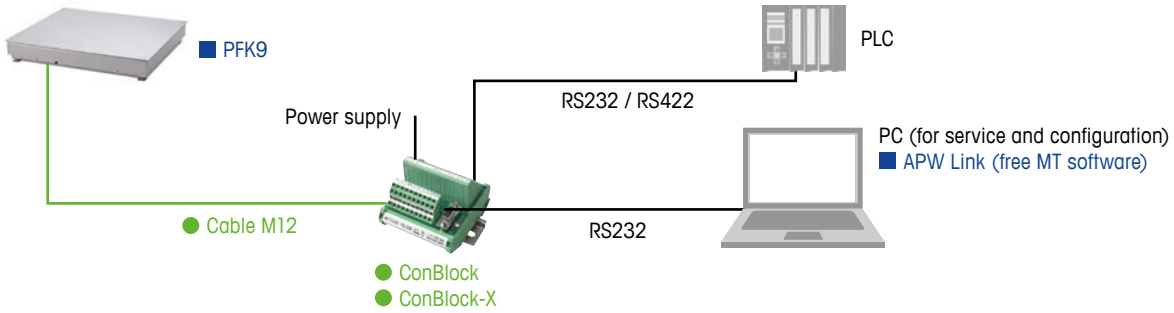


Dimensions (mm)	C	D	E	ES
A	800	1000	1250	1500
B	1000	1250	1500	1500
C	625	890	1140	1390
D	932	1110	1360	1360
E	115 – 140	180 – 205	182 – 207	197 – 222
F	40	60 x 60	60 x 60	60 x 60

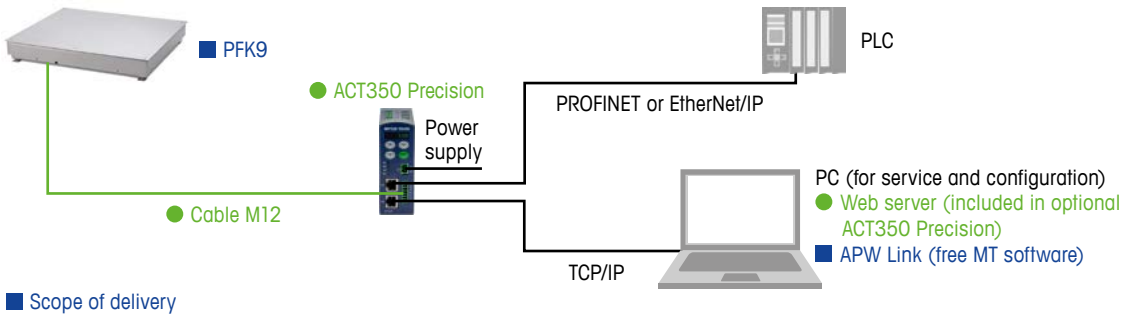
Typical Configurations

Safe area

Serial interface configuration



Automation network configuration

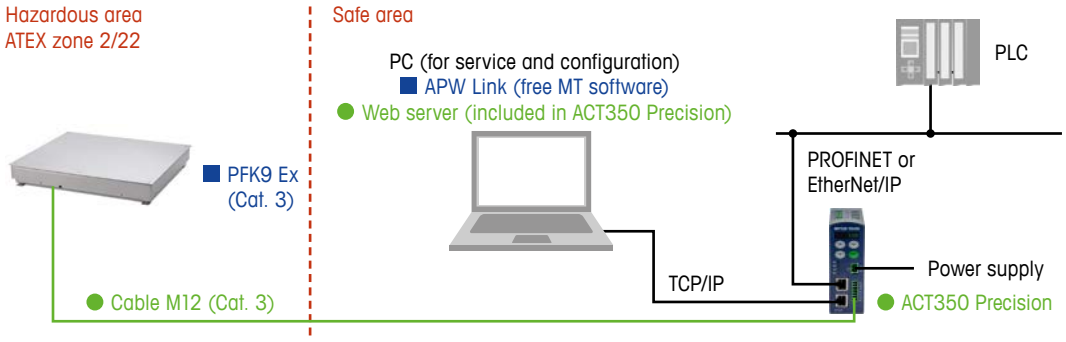


Scope of delivery
Accessories from METTLER TOLEDO

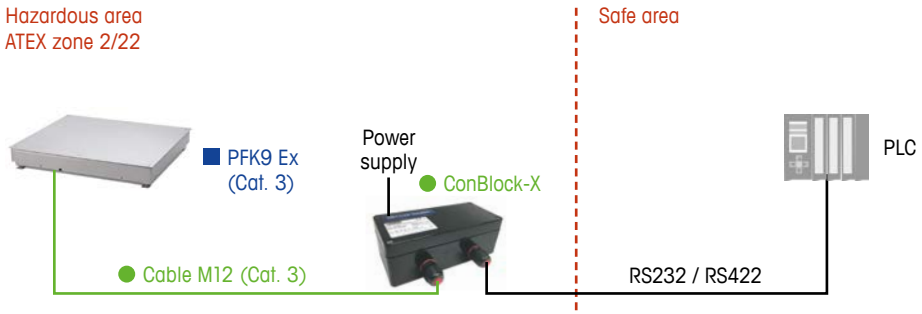
Hazardous area

Consult the applicable certificate of conformity for compliant hazardous area installation. Contact your MT representative for further information.

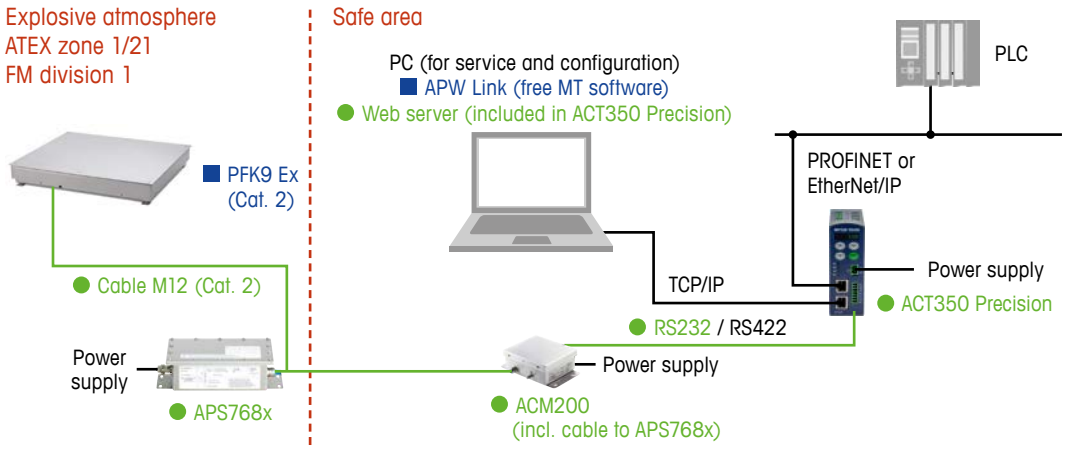
ATEX zone 2/22 automation network configuration



ATEX zone 2/22 serial interface configuration



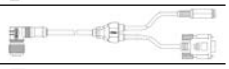
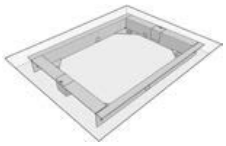
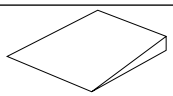
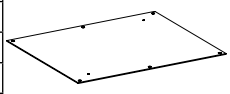
ATEX zone 1/21 and FM division 1 configuration



Scope of delivery

Accessories from METTLER TOLEDO

Accessories

Item	Description	Item number	Picture
Cable M12	12p 10 m (M12f 90°DN - open)	30844498	
Cable M12	12p 0.3 m (M12f 90° – M12m 180°)	30524874	
Cable M12	Y-Cable 12p 1.9 m (M12f 90° – DE-9 and DC Jack Ø5.5/2.5 mm)	30489564	
Cable M12 (cat. 3)	12p 10 m Ex2 (M12f 90°DN - open)	30838247	
Cable M12 (cat. 2)	6p 5 m (M12f 90° – open leads) – zone 1/21, division 1	30267159	
Cable M12 (cat. 2)	6p 10 m (M12f 90° – open leads) – zone 1/21, division 1	30267190	
Cable M12 (cat. 2)	6p 20 m (M12f 90° – open leads) – zone 1/21, division 1	30337109	
ConBlock	Connection module	11152000	
ConBlock-X	Connection module IP66 cat. 2 (zone 1/21) Note: METTLER TOLEDO uses/recommends the ConBlock-X only for zone 2/22 (Cat. 3) applications!	30374066	
APS768x	Power supply unit (120 V AC) (FM approved / Division 1)	22026724	
APS768x	Power supply unit (230 V AC) (ATEX / IECEX approved (Zone 1/21))	22026728	
ACM200	Interface converter (CL - serial) DC supply / RS232	22026692	
ACM200	Interface converter (CL - serial) DC supply / RS422, RS485	22026693	
ACM200	Interface converter (CL - serial) AC supply / RS232	22026695	
ACM200	Interface converter (CL - serial) AC supply / RS422, RS485	22026696	
Cable Ex-i	APS768x – ACM200 (up to 100 m)	22016791	
Quick pit	For C-Model: galvanized (930 x 1210 mm)	30242214	
	For C-Model: stainless steel (930 x 1210 mm)	30242215	
	For D-Model: galvanized (1130 x 1380 mm)	30242216	
	For D-Model: stainless steel (1130 x 1380 mm)	30242217	
	For E-Model: galvanized (1390 x 1640 mm)	30242218	
	For E-Model: stainless steel (1390 x 1640 mm)	30242219	
	For ES-Model: galvanized (1640 x 1640 mm)	30242220	
	For ES-Model: stainless steel (1640 x 1640 mm)	30242221	
Ramp	For C-Model: galvanized	00503638	
	For C-Model: stainless steel pattern	00599204	
	For C-Model: stainless steel smooth	00599198	
Load plate	For D-Model: mild steel powder coated	00503617	
	For D-Model: mild steel galvanized	00503618	
	For D-Model: stainless steel	00503619	
	For E-Model: mild steel powder coated	00503620	
	For E-Model: mild steel galvanized	00503621	
	For E-Model: stainless steel	00503622	
	For ES-Model: mild steel powder coated	00504504	
	For ES-Model: mild steel galvanized	00504505	
	For ES-Model: stainless steel	00504506	

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