



FMS-platformSCALE™ Installation Manual and Operating Instructions

Highly precise and modular solution for colour or ink
weighing

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**Diese Bedienungsanleitung ist auch in Deutsch erhältlich.
Bitte kontaktieren Sie Ihren nächstgelegenen FMS Vertreter.**

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2 Safety Information

All safety information, operating and installation regulations listed here ensure proper function of the device. Safe operation of the system requires compliance at all times. Noncompliance with the safety information or using the device outside of the specified performance data can endanger the safety and health of persons.

Work with respect to operation, maintenance, retrofit, repair, or setting the device described here must only be performed by expert personnel.

2.1 Presentation of Safety Information

2.1.1 Danger that Could Result in Minor or Moderate Injuries



Danger, warning, caution

Type of danger and its source

Possible consequences of nonobservance

Measure for danger prevention

2.1.2 Note Regarding Proper Function



Note

Note regarding proper operation

Simplification of operation

Ensuring function

2.2 General Safety Information



The function of this system is only ensured with the components in the specified layout to one another. Otherwise, severe malfunctions may occur. Thus, the installation information on the following pages must be followed.



The local installation regulations ensure the safety of electrical systems. They are not considered in these operating instructions. However, they must be met.



Poor grounding can result in electric shocks for persons, malfunctions of the overall system or damage to the control electronics! Proper grounding must always be ensured.



Electrical connections must be implemented by an expert.



All system components are sensitive components that can be damaged in the case of improper installation! Installation must be performed by trained service personnel!

3 Product Information

3.1 Functional Description

If you do not want to make any compromises when weighing ink in your printing process, the new FMS-platformSCALE is the ideal solution. Its proven strain gauge technology featuring a resolution from 5 g (0.011 lbs.) at weighing capacities from 50 to 300 kg (110 to 661 lbs.) enables you to continuously and precisely measure the ink consumption in your printing press. Thanks to its high resolution you can even measure and record small consumption rates reliably. The high resolution can even help you to detect leakages in ink pipes in good time to avoid losses. The FMS-platformSCALE is combined with the full range of FMS measuring amplifiers. This combination features easy system integration into your PLC via ethernet as we support standard interfaces such as to PROFINET, EtherCAT and EtherNet/IP. This allows you access and optimize the ink consumption rates of individual print jobs or production batches.

3.2 Main Components

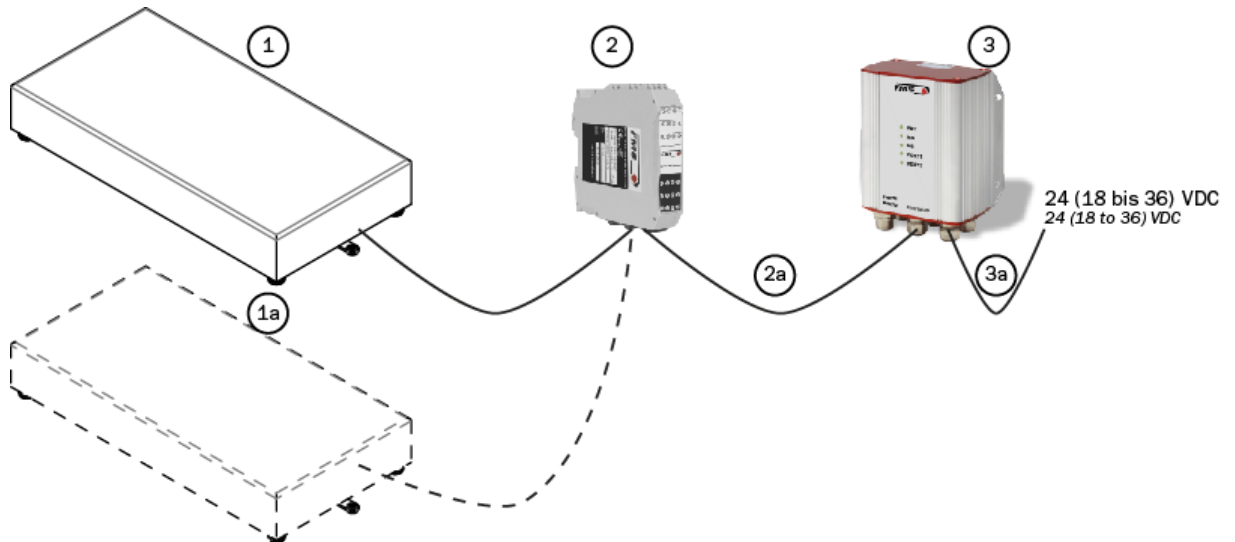


Figure 1: main components FMS-platformSCALE_BA_Manual.ai

Main component designations	
Item	Description
1	Platform scale with connecting cable
1a	Second platform scale, connected to dual channel amplifier (EMGZ942)
2	ExMGZ100/200 (as accessory)
2a	Connecting cable (ass accessory)
3	Measuring amplifier EMGZ491 or EMGZ492
3a	Connecting cable (ass accessory)
not illustr.	Power supply 24 VDC (not in scope of supply)

Table 1: Main Components

3.3 Scope of Supply

Scope of supply:

Platform scale with connecting cable (please specify length)

Options:

Electrical connection left of right (circular level is on right hand side)

Accessories:

Measuring amplifier, intrinsically safe barrier, connecting cables or connectors

4 Installation and Electrical Connections

4.1 Leveling the platform scale



Compensation for uneven ground

To ensure that the equipment is placed in a perfectly horizontal alignment for reproducible weighing results.

Always level the weighing platform after moving it to a different location.

- Level the platform scale using the four leveling screws.
- Turn the feet until the air bubble is centered in the circular level.
- Ensure that all leveling feet touch the ground.
- Each of the leveling feet must support an equal load.
- Adjusting the leveling feet: To raise the weighing platform, extend the leveling feet (turn counterclockwise). To lower the weighing platform, retract the leveling feet (turn clockwise).
- Place the cover on the base frame

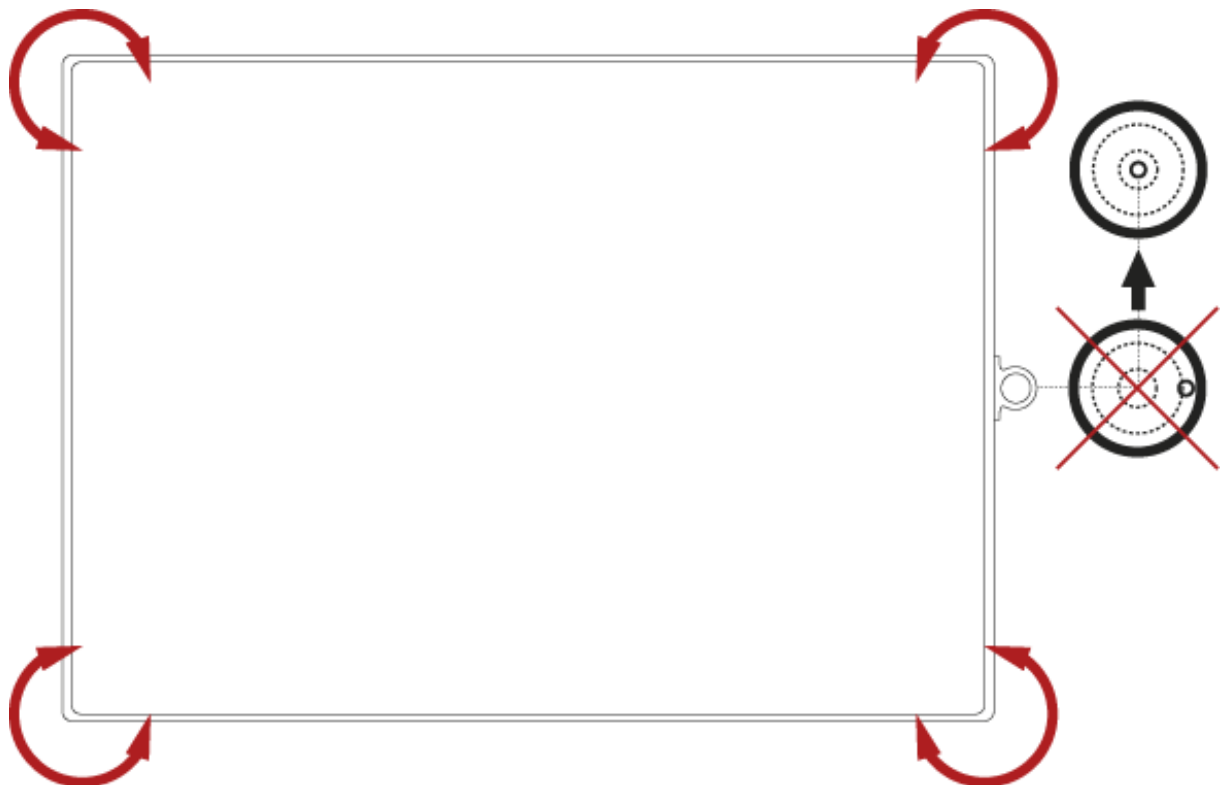
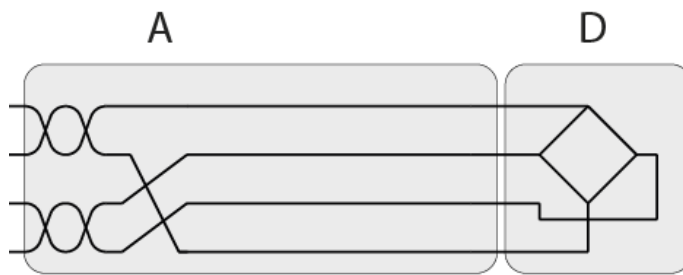


Figure 2: leveling the platform scale

FMS-platformSCALE_BA_Manual.ai

You can easily change the position of the circular level by loosening the two screws.

4.2 Electrical connection



Litze/Wire	DE	EN	IEC 60757
n.a.	Speisung +	Excitation +	BU
n.a.	Signal -	Signal -	RD
n.a.	Speisung -	Excitation -	BK
n.a.	Signal +	Signal +	WH
n.a.	Fühler +	Sense +	GN
n.a.	Fühler -	Sense -	GY
n.a.	Schirm	Shield	YE

	DE	EN
D	Plattformwaage	platform scale
n.a.	Stecker	Plug (male)
n.a.	Buchse	Socket (female)
A	Kabel	Cable

Farbangaben (IEC60757) und Codierung gelten nur für FMS Komponenten!
 Color scheme (IEC60757) and pin codes are valid for FMS components, only!

Figure 3: cable *PIN assignment sensor farben.ai*

FMS components are connected via four wire circuit

An additional earth bolt is available for connection on the bottom side of the platform scale.

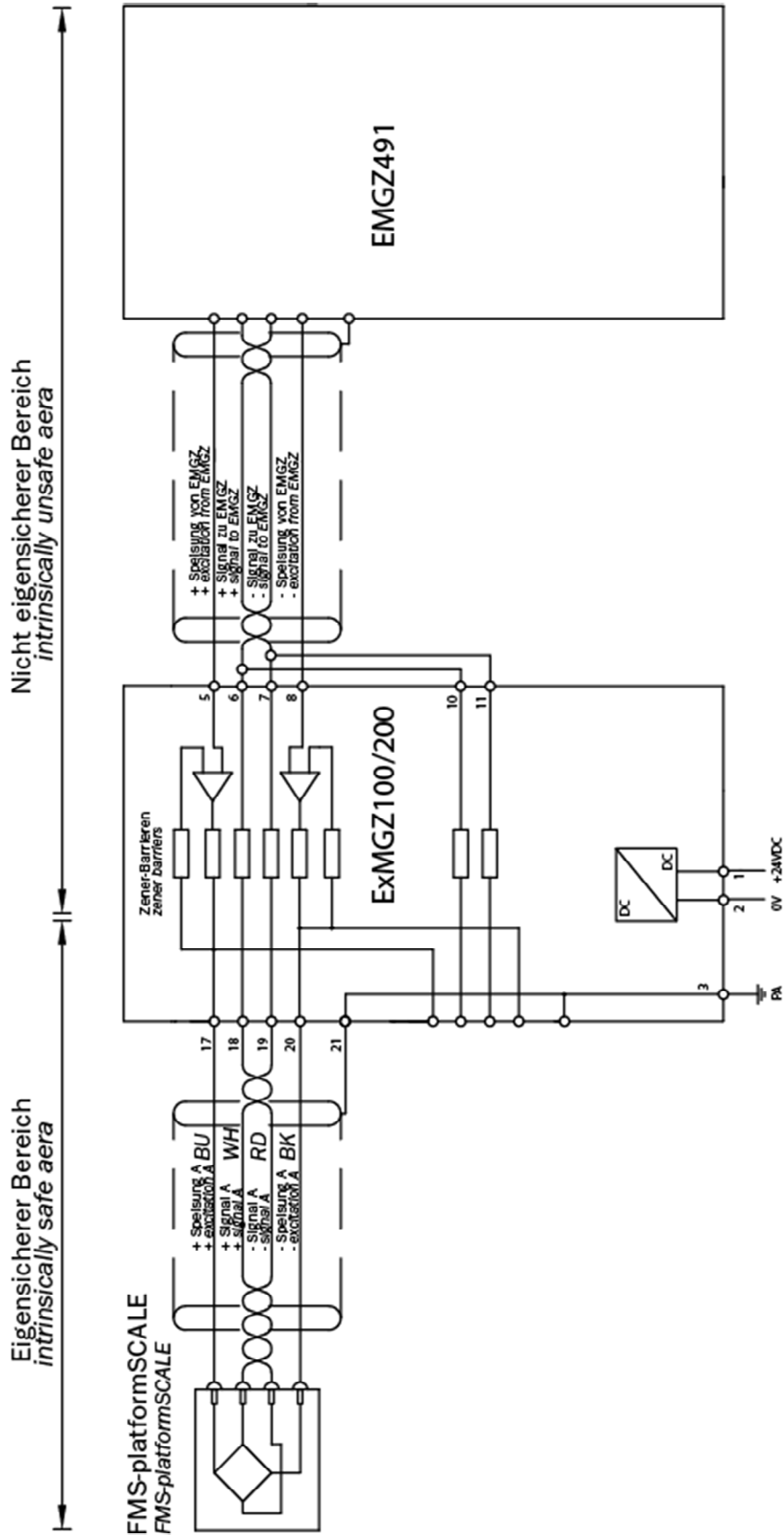


Figure 4: connection of a single platform scale to a single channel amplifier in hazardous area with ExMGZ100/200 ExMGZ_BA_Manual.ai

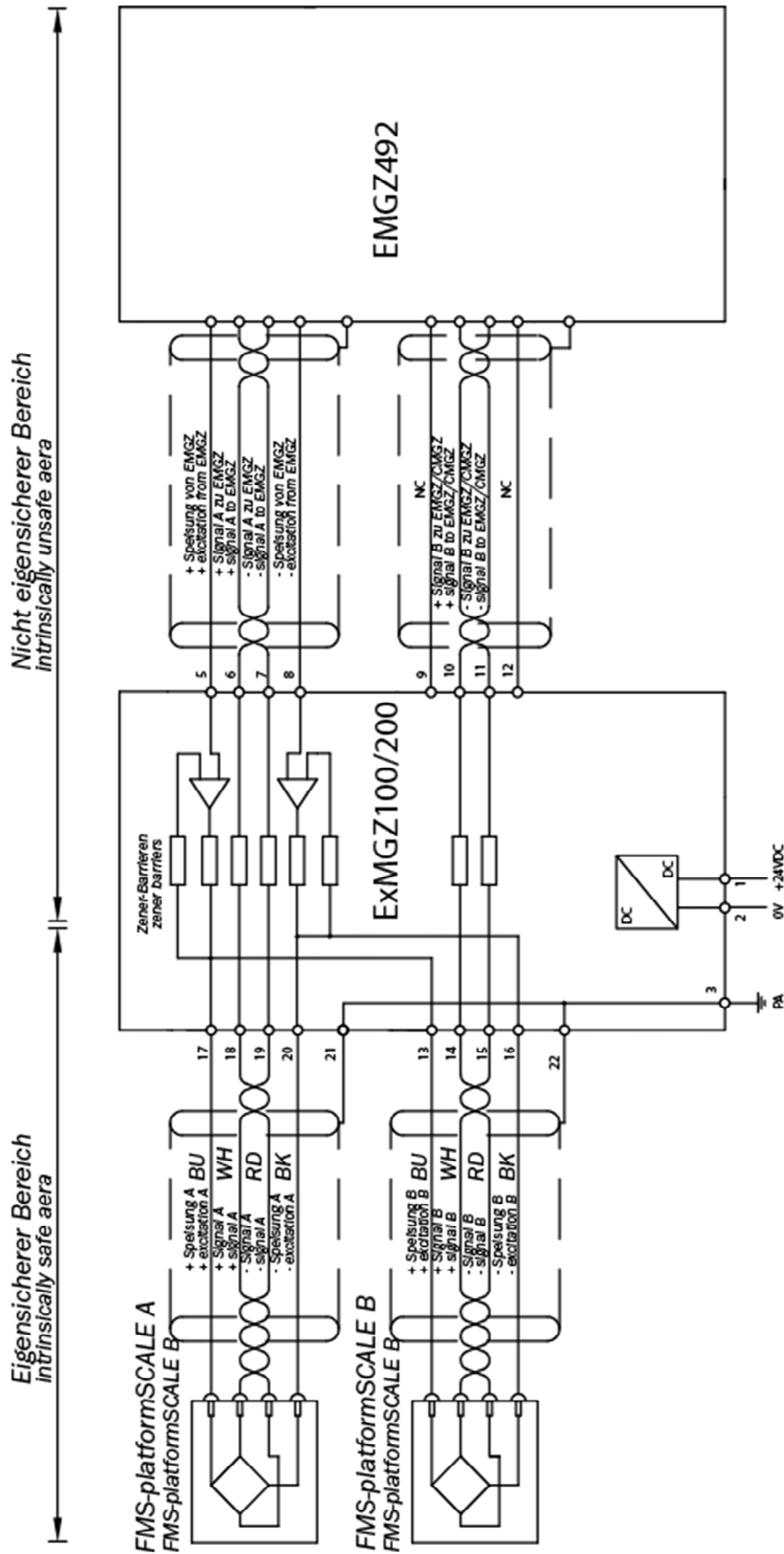


Figure 5: connection of two platform scales to a dual channel amplifier in hazardous area with ExMGZ100/200 ExMGZ_BA_Manual.ai

5 Dimensions

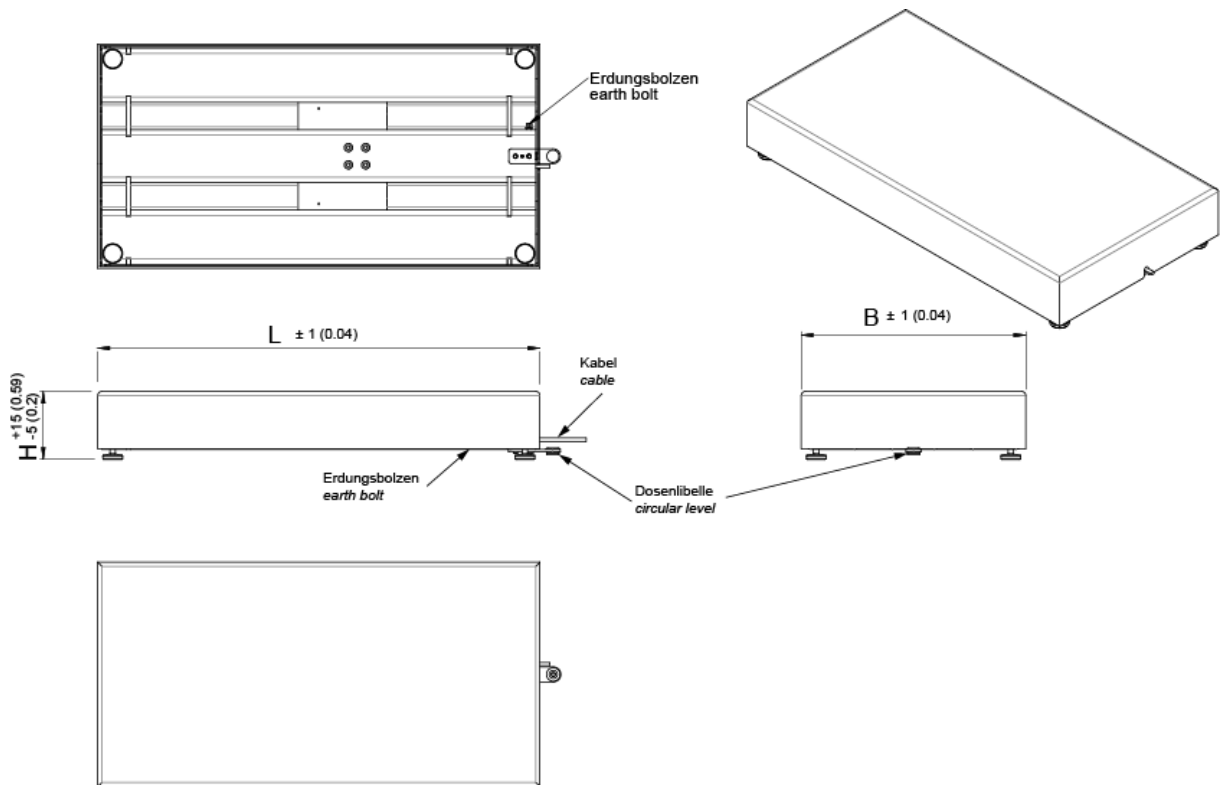


Figure 6: Dimensions

FMS-platformSCALE : Abmessungen mm (in.)				
Baugröße	L	B	H	
Typ				
FPS	300 bis 600 (13 bis 23)	300 bis 500 (13 bis 20)	110	(4)

Länge L und Breite B werden kundenspezifisch konstruiert und hergestellt.

FMS-platformSCALE : Gewicht, Länge Anschlusskabel		
Baugröße	Gewicht	Länge Anschlusskabel
Typ	kg (lbs.)	m (ft.)
FPS	25 bis 50 (55 bis 110)	1.5, 3, 6, 12 (4.9, 9.8, 19.6, 36.2)

Figure 7: Dimensions and weight

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6 Technical Data

FMS-platformSCALE : Technical data						
Capacities kg (lbs.)	50 (110)	100 (220)	150 (330)	200 (440)	250 (550)	300 (660)
Minimum verification interval/ Resolution g (lbs.)	5 (0.011)	10 (0.022)	10 (0.022)	20 (0.044)	20 (0.044)	20 (0.044)
Accuracy class	C3 Multi Range (MR)					
Temperature range	-10 °C to +50 °C (14 F to 122 F)					
Non-linearity	± 0.0166% of capacity					
Maximum permitted load	3-times capacity					
Materials	Supporting frame: galvanized steel; cover: stainless steel; load cell: aluminum					
Protection class	IP 67					
Power supply	5 VDC, via measuring amplifier					
Electrical connection	shielded, 6-wire connection cable with 6-pin Pancon connector (CE100F26-6)					
Rated nominal output	2.0 ±0.2 mV/V					
Zero signal	0 ±0.1 mV/V					

Table 2: technical data

DataSheet_FMS-platformSCALE



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