Technical data	MFX 200 - B
Accuracy class EN ISO 9513	0.5
Indication error (rel.)*	0.5 %
Indication error*	1.5 µm
Error in gauge length (L_e)	± 0.5 %
Gauge length (L_e)	10... 200 mm minus travel
Activating force	max. 10 cN
Clamping force	50 - 100 cN
Operating temperature range	0 - 50 °C
Weight	approx. 24 kg

Measuring system	Standard	Optional
Name	LIDA 48	LIDA 47
Interface	1 Vpp	RS422/TTL
Measurement principle	Optic-incremental	
Travel	200 mm minus L_e	
Signal period	20 µm	0.2 µm
Resolution max.	0.01 µm	0.05 µm
Voltage supply	DC 5 V ±0.25 V	
Current consumption	<100 mA	<255 mA (without load)
Integrated interpolation	———	100-fold
Sampling rate	———	25kHz
Edge distance	———	0.080 µs
Movement speed	≤480 m/min	≤30 m/min
Input frequency of the subsequent electronics	———	8 MHz
Edge separation of the subsequent electronics	———	≥0.05 µs

* The larger of the values is admissible

Sample dimensions

Round samples	up to Ø 80 mm
Square samples	up to 70 x 70 mm
Rectangular samples (width / thickness)	360 / 50 mm
Other dimensions are available on request	

Device options

1. Measuring arm with tilting mechanism
2. Adjustable clamping force 20… 100cN
3. Measuring head extended +45 mm or +90 mm
4. Measuring head for climatic chamber -50° … + 350° C / Arm length 400 mm and 490 mm
5. Measuring arm for bending tests / Arm length 400 mm and 490 mm

MFX 200 - B

Feeler arm extensometer - automated -

M e s s - & F e i n w e r k t e c h n i k G m b H

P r e c i s i o n t e s t i n g o f l i n e a r s t r a i n

Review 2017.06

Area of application

The extensometer MFX is suitable for almost all samples of a gauge length (L_e) from 10 mm. Because of its rugged construction and high accuracy the MFX nearly meets all applications in measurement of linear strain (determination of the E-modulus up to sample fracture). The MFX works without restrictions in both the upper as well as the lower test area.
When used in combination with the MFQ-A the MFX is highly suitable for testing the deep-drawing properties (vertical anisotropy r) of thin sheets.

Design and function

The MFX has a smooth running and nearly frictionless linear guidance of the measuring heads. Due to the non-contact incremental gauge the MFX meets all requirements of class 0.5 (EN ISO 9513) over the whole travel.

The measuring heads may easily and quickly be removed from the device by unlocking two screws with pin guidance.

As an option also version with measuring arms for a climatic chamber is available (up to 350 C).

Controlling

The MFX can be controlled via personal computer or a manual control board (see operating instructions).

Attention!

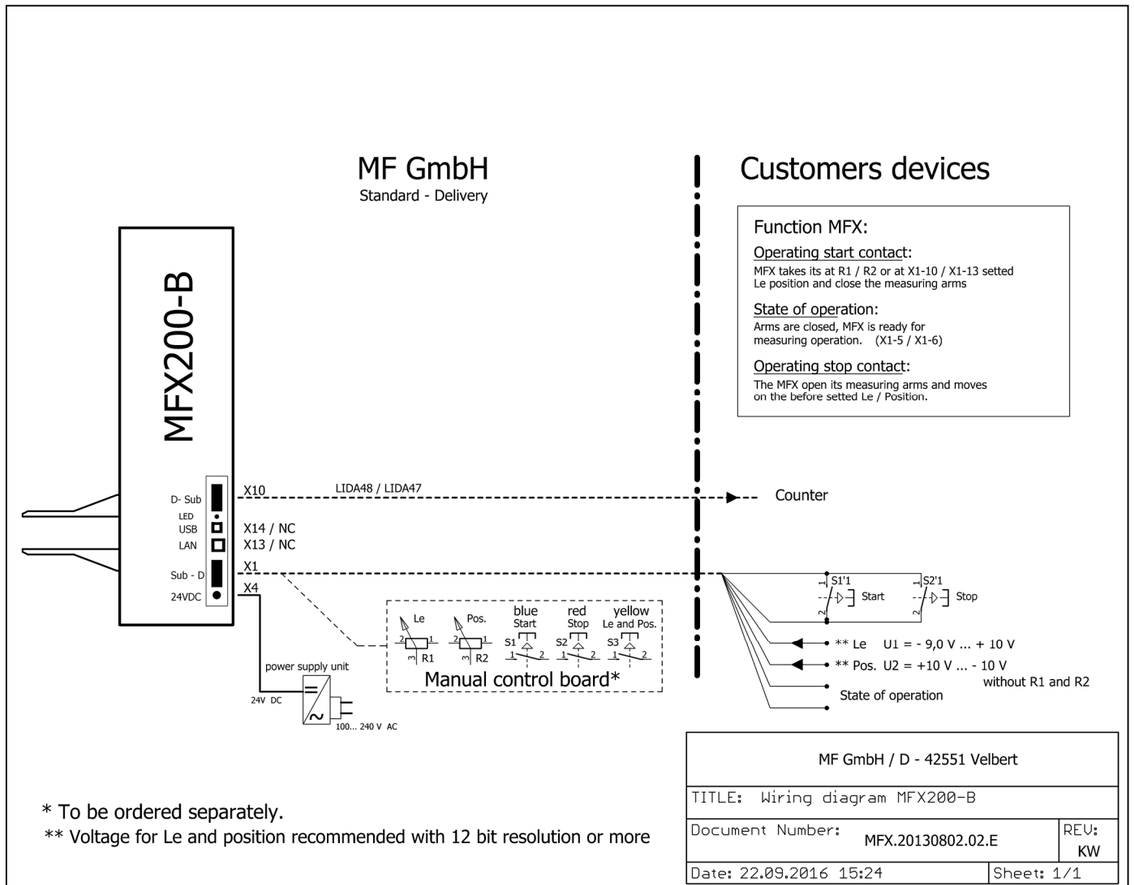
When the MFX is set up and fixed to the testing machine it is absolutely necessary to straighten the exact position of the device by means of a spirit level. This is essential for the balance weight to hang absolutely free.

Measuring signal

Two non-contact inbuilt measuring systems from company Heidenhain are available. For more information see the technical data's at back of the page and the operating instructions of MFX200-B.
The connectors X13/LAN and X14/USB are in preparation. They are currently not in function and do not have to be connected.

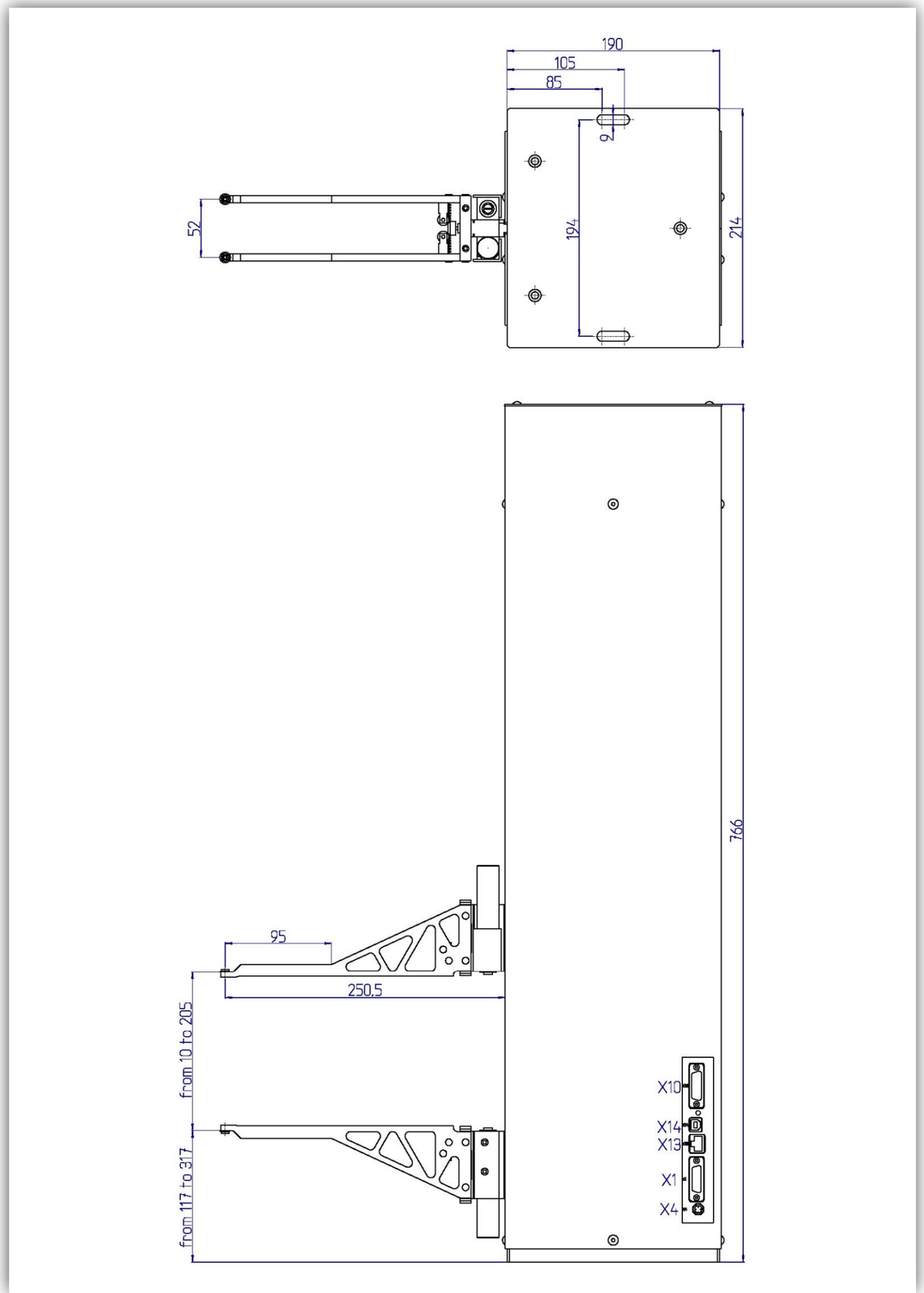
Delivery Scope

1	MFX 200 - B
1	Power supply 230 V AC/ 24 V DC
1	D-Sub-connector, 15pin (socket) for X4
1	D-Sub-connector, 15pin (pin) for X1
1	Hexagon key 3 mm
1	Fixing plate
1	Test report



* To be ordered separately.
** Voltage for Le and position recommended with 12 bit resolution or more

Picture 1: MFX 200-B - Connecting diagram



Picture 2: MFX 200-B - Dimensions