

## Conditions for connection

### X1/X2

#### Measuring systems/DMS–strain gauge

Pin 1	Ua/Output strain gauge
Pin 2	Ue/Supply Voltage
Pin 3	Ue/ Supply Voltage
Pin 4	Ua/ Output strain gauge
Pin 5	Shielding
Pin 6	NC

### X3

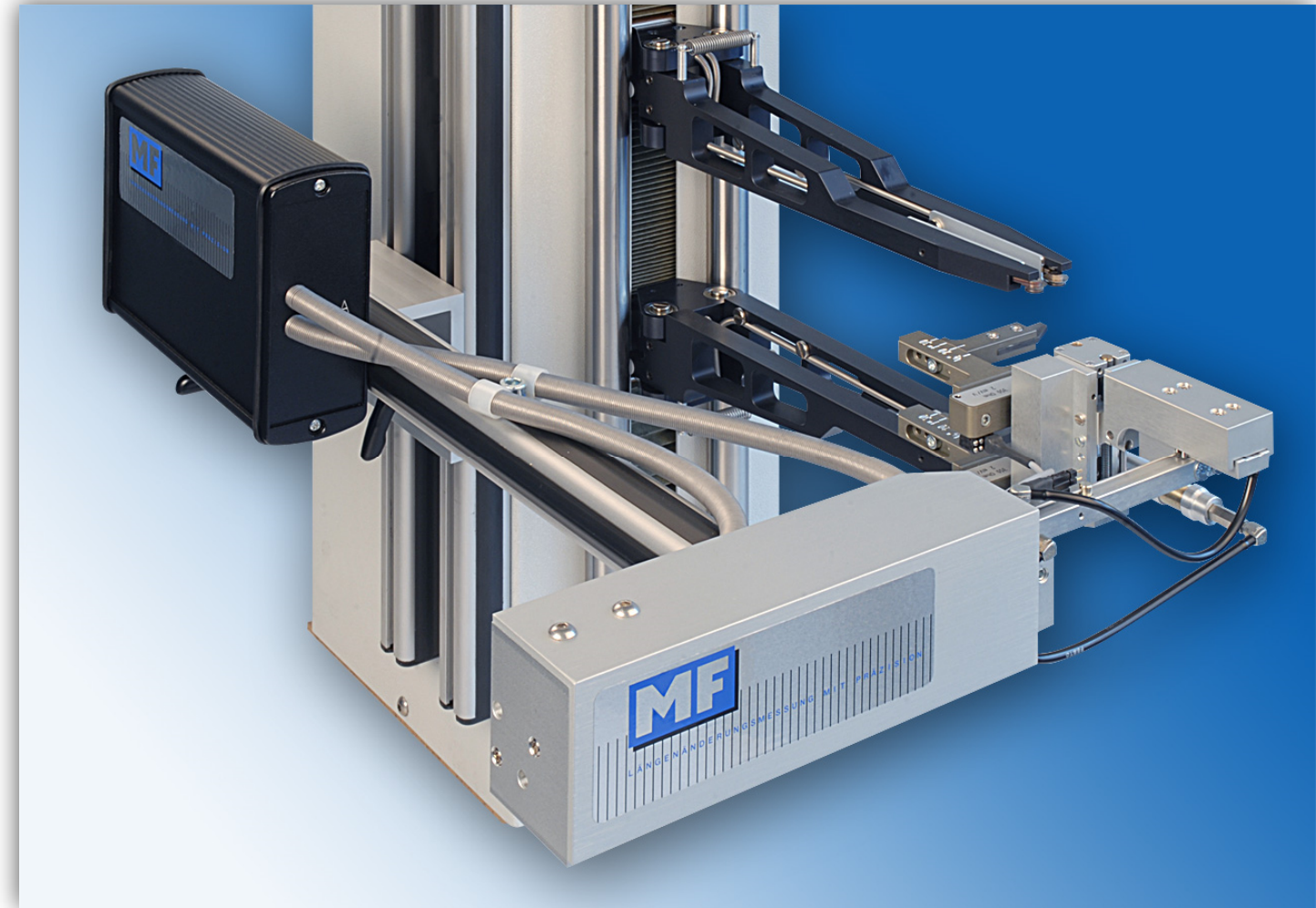
#### Power Supply

Pin 1	+ 24V/DC / 1500mA
Pin 2	GND

### X4

#### Control/Operation

Pin 1	+24V / DC
Pin 2	Moving towards sample / impulse +24V/DC
Pin 3	Moving back from sample / impulse + 24V/DC
Pin 4	NC
Pin 5	Status display potentialfree contact
Pin 6	Status display potentialfree contact
Pin 7	GND
Pin 8	NC



# MFQ – A

## Instructions for Installation



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

### Installation of the measuring heads

On the casing of a MFL or MFN there are located rails for fastening (A) which are already installed. To other products they have to be fixed in a suitable manner. A fastening to the testing machine's frame is possible as well (material for fastening is available on inquiry). Afterwards the unit consisting of measuring heads (C), moving unit (D) and rail (E) is to be fixed by means of the square (B) and the lever screws (F) to the rails (A) in a suitable way. The rails (A and E) therefore contain installed nuts. The lever screws (F) can be released by pulling out and fixed in each position. Care has to be taken for the noses at the square (B) to mesh with the grooves of the rails (A).

### Adjustment of the measuring heads

First of all the position of the  $L_e$  for the measurement has to be defined. Afterwards after loosening the appropriate lever screw at the rail (A) the square (B) is to be shifted until both of the measuring heads are in the middle of the  $L_e$ . The square (B) then is to be fixed in exact this position. After this the rail (E) as well as the moving unit (D) are to be moved (after loosening the corresponding lever screw), so that the sample axis (K) and the middle axis of the measuring clamps form a line at the measuring heads. Care has to be taken for the measuring heads (C) to be located at this position at their right mechanical stop (they are to be moved manually to the stop without any air pressure).

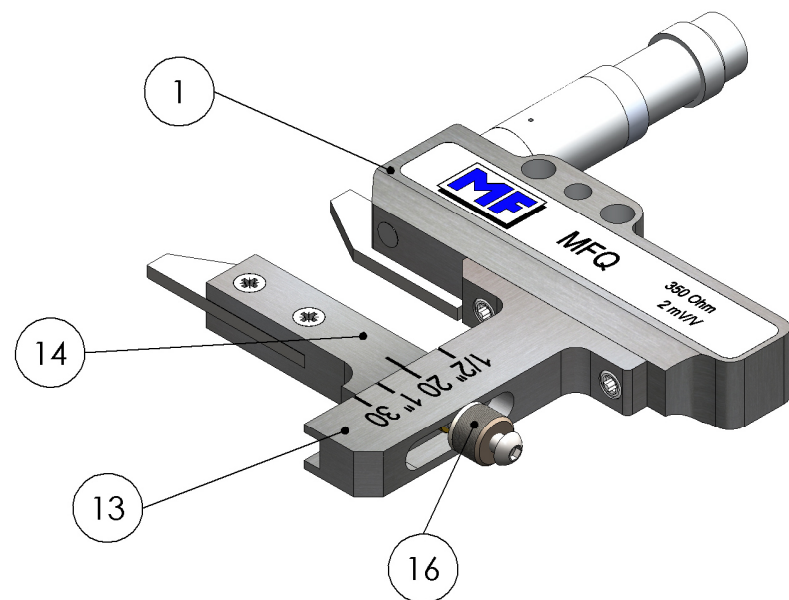
#### Important:

While starting to the sample the casing's slopes (M) of the measuring heads (C) have to hit the edges of the sample (N) symmetrically. This is adjustable by shifting the rail (E) (see drawing/ extract X).

### Adjustment of the sample stops (B<sub>0</sub>)

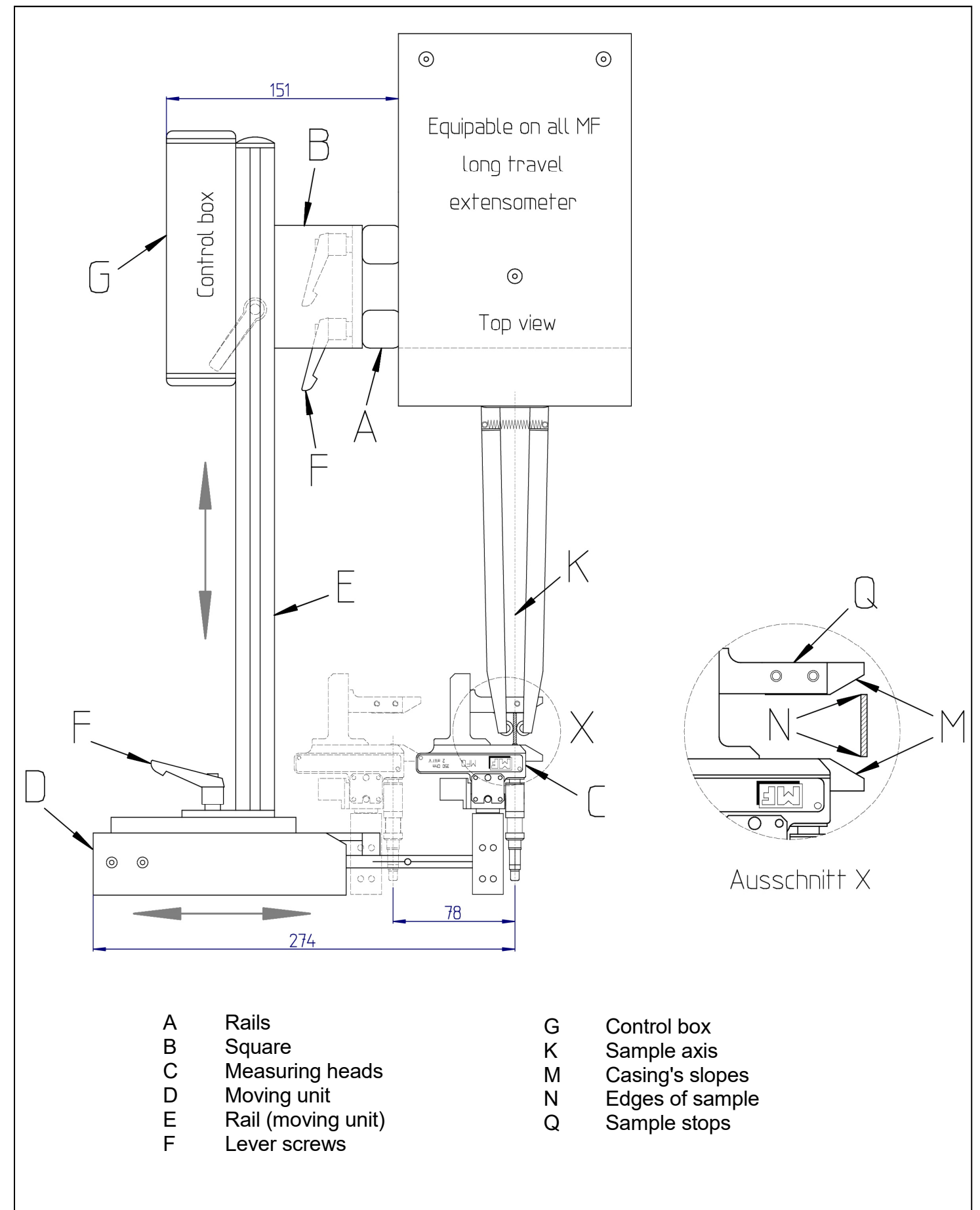
The sample stops (Q) may be set to sample widths of 1/2", 20 mm, 1" as well as 30 mm. Therefore the set screws (2.5 mm hexagon key) have to be loosened and tightened again at the corresponding position.

**Attention:** After changing the sample width the symmetry of the casing's slopes (M) has absolutely to be adjusted in respect to the sample edges (N) (see also "Adjustment of the measuring heads"):



### Adjustment of the sample stops on both gauge heads

1. Unscrew the knurled knob (16) counter clockwise till its stop and hold it with the other hand on the housing (1) meanwhile.
2. Push the knurled knob against the measuring frame (13), set the spline end (14) to needed  $B_0$  and drop (Spline end (14) must snap in noticeable)
3. Tighten the knurled knob (16) clockwise.



Picture 1: MFQ-A with extensometer MFL

#### Note:

The linear cylinder in the moving unit (D) is definitely not to be limited in its way (nominal stroke: 80 mm). More over the stops are not supposed to be adjusted. The adjustment of the measuring heads (C) to the sample axis (K) is only allowed by shifting the moving unit (D) (therefore the lever screw (F) has to be loosened).