

## FMS CALIPER MEASUREMENT PRESSURE DEVICE

A digital caliper is an accurate measuring instrument when used with thought and care. A uniform measurement pressure is a necessity for reliable, repeatable, accurate measurement results with a digital caliper. A FMS caliper pressure device ensures a uniform measurement pressure by all users.

The actual caliper measurement force by a FMS pressure device is minus the force required to move the caliper sliding jaw. This varies from caliper to caliper even with apparently identical calipers. This force on a standard 150mm / 6" digital caliper to move the sliding jaw should preferably not exceed 2N. This force of course increases the larger the caliper.

To determine if excess force is necessary to move the caliper sliding jaw fasten the pressure device as shown below with it touching the housing. Zero the caliper, pull, and it should return to zero. This means that the force to move the sliding jaw is less than 2N.



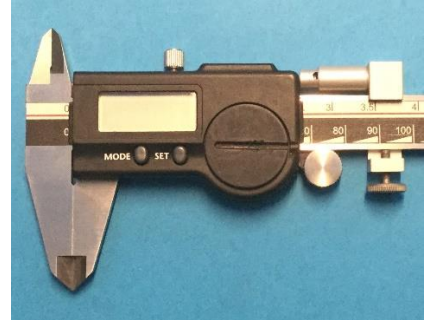
With measurements and the pressure device at this distance (hole) then the measurement force is close to 5N.



On calipers with thumb rollers the pressure device should be mounted as shown below.



Again, the cylinder hole gives a guide as to constant pressure.



For use with internal measurement then as shown in the two pictures below.



For more information

**WWW.F-M-S.DK**

Measurement accuracy of a digital caliper as specified in DIN 862		Information
Measurement length (mm)	Fault limit (mm)	Repeatability accuracy for a digital caliper is 0,01mm N.B. There is an allowance of 0.02mm for the internal jaws and depth measurement. i.e. Measurement inaccuracy for internal and depth is 0.04mm as opposed to 0.02mm.
Up to 100	0,02	
Up to 600	0,03	