

# PIAB RTM 20D ROPE TENSION METER

NEW!  
MICROPROCESSOR CONTROLLED



The PIAB RTM 20D can be used in applications where accurate measurement in pre loaded wire ropes is required. Such applications can be stay ropes, suspension ropes, catenary ropes etc. The PIAB RTM 20D is applied direct to the rope and the measured tension value is presented digitally.

## RANGE OF APPLICATION

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The PIAB RTM 20D is designed to directly and accurately measure the tension in fixed or stationary ropes or cables i.e. guy wires for masts and/or towers or other guyed constructions. The PIAB RTM 20D will also be very useful in determining the tension in overhead suspension ropes for railways catenaries.

The PIAB RTM 20D can be used to measure tension forces up to 20 metric ton (44000 lb.) and for wire ropes with a diameter of up to 38 mm (1.500"). Thanks to the use of microprocessor technology the PIAB RTM 20D can be calibrated on up to 10 different wire rope dimensions/types. The digital read out display will clearly show the tension of the wire rope selected. No calibration tables are required.



## FUNCTION

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The PIAB RTM 20D is very simple and handy to use. Simply hold and "clip" it to the rope to be tested and use the large hand screw to deflect the rope to a fixed angle. The resultant force will then affect the load cell and measure the tension in

the wire rope. The resultant signal is then digitally processed and displayed in a graduation selected and pre-programmed. The PIAB RTM 20D can be graduated in kN, klb. or in metric ton.

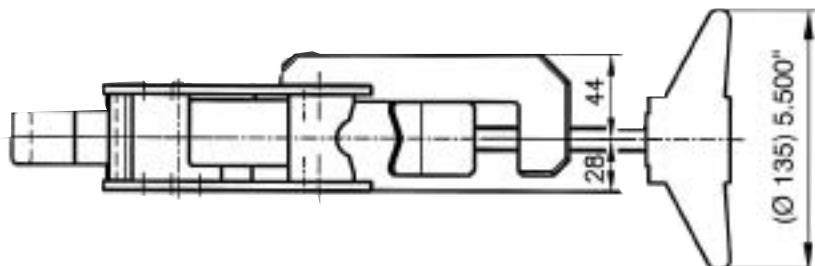
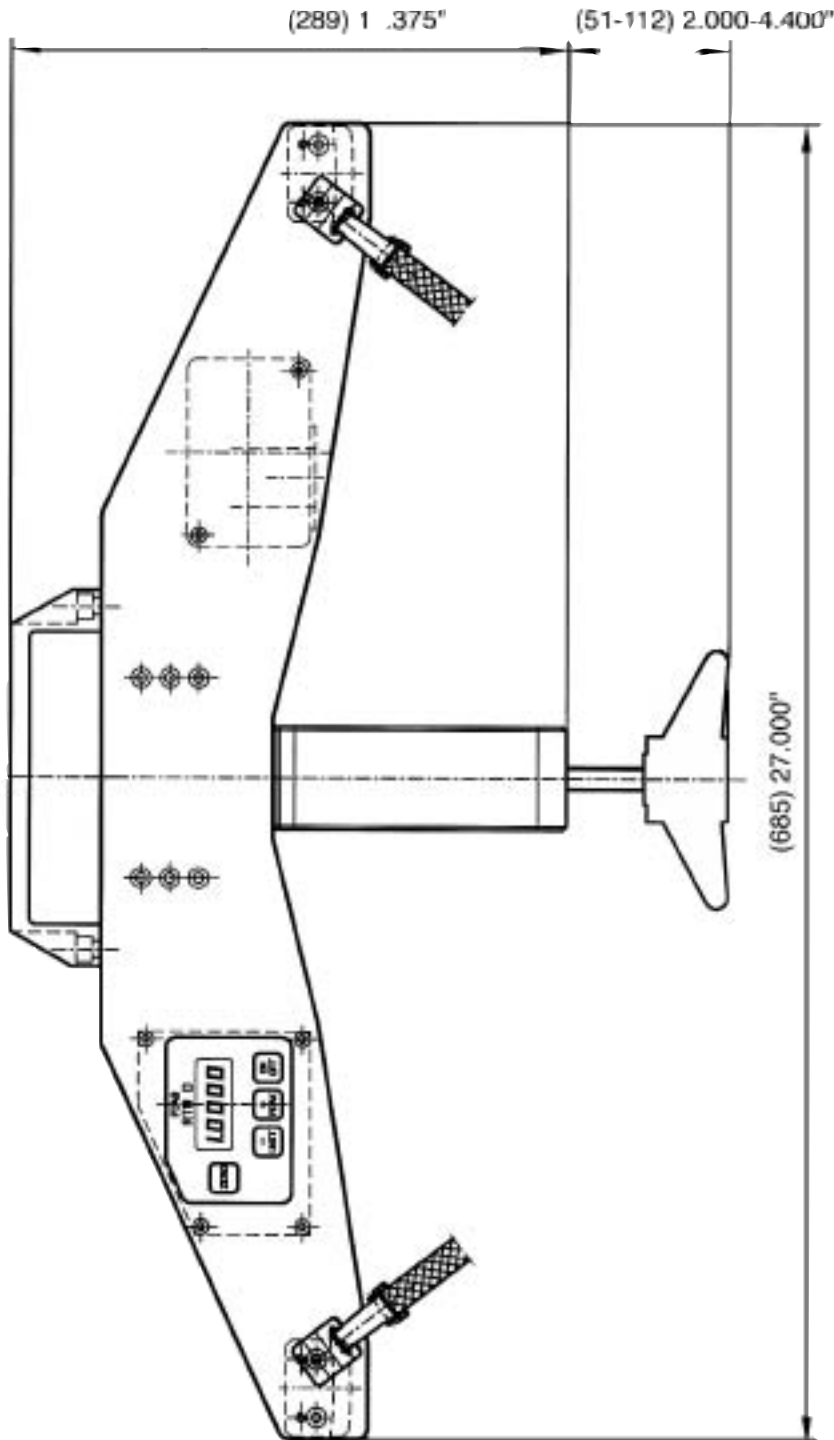
## SAFETY

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The PIAB RTM 20D is a delicate testing instrument for swift, handy and accurate testing of pre tensioned stationary ropes. Thanks to the design of the instrument it can temporarily be overloaded up to 100% of its nominal capacity without affecting the accuracy of the instrument. Thanks to tempered outer rope supports and centre clamping jaw the instrument will have a long service life with accurate measurements.

The PIAB RTM 20D is delivered in a robust and light weight transport case 760 x 400 x 170 mm (30.000" x 15.313" x 6.250") for easy handling and protection of instrument.

# PIAB RTM 20D



## TECHNICAL DATA

**CAPACITY, MEASUREMENT RANGE**  
 2,0 metric ton 4400 lb.  
 5,0 metric ton 11000 lb.  
 10 metric ton 22000 lb.  
 20 metric ton 44000 lb.

**ROPE DIAMETERS**  
 From 6 mm up to 38 mm.  
 From 0.250" up to 1.500"

**NUMBERS OF ROPES TO BE STORED**  
 Up to 10 (factory programmed).

**ACCURACY**  
 2-6% of max. capacity  
 (dependent on wire rope type and characteristics).

**DISPLAY**  
 Digits 12 mm (≈0.500"), LCD,  
 0-1999.

**BATTERY**  
 9 V standard, 6LR61 or  
 equivalent.

**OPERATING TIME**  
 25 hours.

**MATERIAL**  
 Corrosion and weather resistant,  
 side plates anodised aluminium.

**DIMENSION**  
 135 x 380 x 685 mm.  
 5.500" x 15.000" x 27.000"

**WEIGHT**  
 6,2 kg net  
 13.6 lb. net

**ENVIRONMENT:**

**TEMPERATURE RANGE**  
 -20 to +60 degrees Centigrade.  
 -4 to +140 degrees Fahrenheit.

**PROTECTION CLASS**  
 IP 65 according to IEC 529.  
 NEMA 13

# APPLICATIONS FOR THE PIAB RTM 20D

*The rapid growth of mobile telephones all over the world require a lot of transmission masts. For accurate operation the masts have to be guyed in a stable position, unaffected by strong winds. Control of tension in the various supporting stay ropes is easily made by using PIAB RTM 20D.*



*Also when stay ropes are difficult to reach the light-weight PIAB RTM 20D is easy to handle. The picture shows control of guy wire tension from a crane operated working platform.*



*The PIAB RTM 20D is in use when installing/inspecting suspension and catenary ropes.*



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Force Measurement

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