Technical

# **DYNAROPE** TENSIOMETER

HF 36

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#### **APPLICATION :**

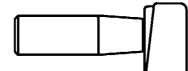
Sheet

This electronic load cell has been designed to measure the effort applied in a wire rope. The resulting signal is used in a digital monitor controlled by a microprocessor, which corrects the force information according to the wire rope specification.

An analogue monitor which gives non-adjusted information of the measurements is also available.

## **OPERATING PRINCIPLE :**

The Dynarope uses strain gauges to measure the movement of the load cell. It gives an electrical signal relative to the load applied. The deviation of the wire rope around the load cell produces forces proportional to the forces transmitted through the wire rope.



# **TECHNICAL SPECIFICATION:**

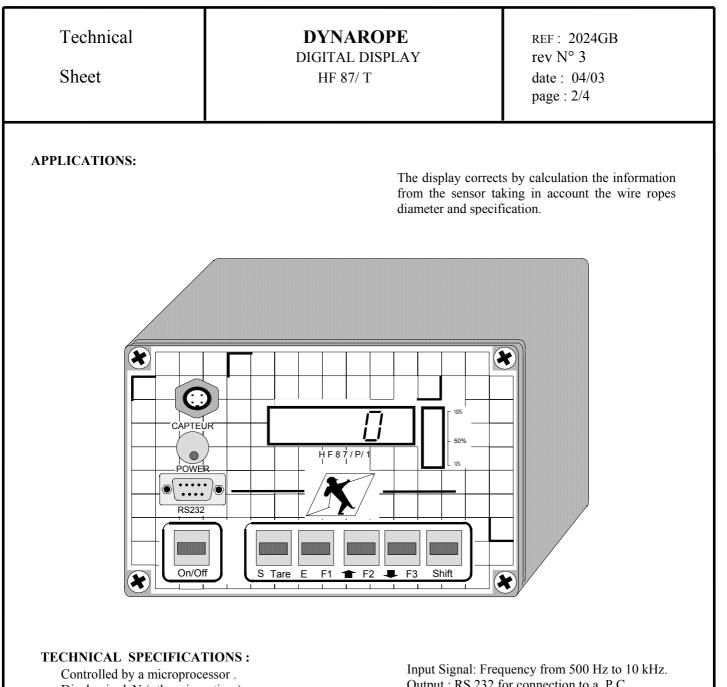
Overload Coefficient : 1,5 Digital Display accuracy : +/- 1% in Special Mode +/- 2,5 % in Normal Mode The Analogue display is used for control in specific repetitive conditions Temperature : from - 20° to + 60° Material : Anodised Aluminium 7075 IP protection : IP 64 Supply : low voltage from the display Output Signal : frequency to the digital display OR mv / v to the analogue display.

# **IDENTIFICATION:**

Model	Code	Wire rope	Capacity	Weight	Dim. mm
HF 36/1	29808	5 to 13	5 t	2 kg	370 x 180 x 80
HF 36/2	29818	10 to 28	20 t	4 kg	500 x 280 x 90
HF 36/3	36008	20 to 44	40 t	8 kg	700 x 310 x 100

## **ASSOCIETED MATERIAL:**

Digital Display HF 87/1/ T Analogue Display HF 87/A



Display in daN (others in option ) Display : 4 1/2 digit . Red LED 14 mm Display accuracy :

• +/- 1 % in Special Mode (SPEC)

- +/- 2,5% in Normal Mode (NORM)
- Barograph : Indicates the updates from the sensor as a %

Input Signal: Frequency from 500 Hz to 10 kHz Output : RS 232 for connection to a P.C. Protection : IP 55 Temperature: from - 20° to + 60° Dimensions : H 105 / L 165 / P 180 / mm Weight : 2 kg Supply : rechargeable incorporated batteries Battery live : 12 hours before recharge Charger : power 12 Vdc Charge time : 1 hour

# **IDENTIFICATIONS:**

Display HF 87/ T	44098
3 m cable to connect to display 4 pin "Lemo"	75057
Transformer (Charger )	44108
Leather carrying case	44118

Technical

# DYNAROPE

DIGITAL DISPLAY

Sheet

HF 87/ T

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# SPECIFICATION OF THE HF 87/1/T DISPLAY:

Two readout modes are available.

## 1. STANDARD MODE

### **Definition :**

The standard display Mode uses a data base to correct the raw data from the sensor. This data base has been set up as a result of actual measurements taking into account the following factors :

- A) The wire rope diameter
  - From 4 à 44 mm
- B) The wire rope structure
- Rigid (rIgI) = Monostrand steel
- Normal (nor ) = Multistrand steel
- Flexible (SoFt) = Kévlar and textile ropes

#### When to use it?

Standard Mode is used for load checking and balancing operations between different wire ropes. In this application repeatability of the measurement system, within the 1% range, is most important. The accuracy of the measurement is plus or minus 2,5%.

### 2. SPECIAL MODE

#### **Definition :**

The Special Mode readout refers to calibration operations to correct the "raw" measurement value. Calibration is carried out under conditions identical to those found in actual situations. (For example, the in-line insertion of a dynamometer into the wire rope system to be checked.) the parameters specific to each calibration are recorded numbered registers. When checks are made at some later date on the same wire rope system, all that is required is to access the corresponding register number to call up the system-specific parameters.

#### When to use it ?

The Special Mode readout is recommended for use when accuracy is most important. accuracy . Accuracy obtained in this mode is 1 %.

#### **PC CONNECTION :**

The HF 87/1/ T display is able to record the data and parameters of the applications. Then, via the RS 232 output, it may be connected to a P.C. The ASCII file may be printed or processed in MS EXEL.

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Référence	Effort daN	Année	Mois	Jour	Heure	Min.	Τ°	V. Vent	Dir.Vent
231	675	2003	02	21	14	42	6° C	25 Km/h	350°
232	655	2003	02	21	14	50	6° C	22 Km/h	5°
233	680	2003	02	21	15	05	5° C	25 Km/h	360°

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APPLICATIONS :		
TECHNICAL SPECI	FICATIONS :	

Display in force units (to precise when you place the order) Display : 3 1/2 digit . LCD 14 mm Display accuracy :

- +/-1 % of the target value.
- Refer you to the correction abacus for the nearby values.

Calibration in factory following customer information :

- Wire rope type
- Target tension

Input Signal: mV/V Protection : IP 54 Temperature : from -10° to + 50° Dimensions : H 80 / L 80 / P 40 / mm Weight : 350 gr Supply : 1 incorporate battery type : 9V PP3 Battery life : 15 hours with full charged high power battery

HF 87/A Display	55288
3 m cable to connect sensor with level to display 4 pin "Lemo"	75057
Leather protection case	49358