Portable Battery Powered
Hand Held Tension Measurement Device

DIGIFORCE®

Patent Pending

Standard

- Portable & Battery Powered
- Compatible with wire, strand, cable and rod
- Non-contact measurement
- Accurate to 1%
- Simple Operation
- CE Marked & EMC Approved
- 3 YEAR WARRANTY
- Data-Logging & RS232 Output

Applications

Pre-stressed concrete fabrication
Elevators
Mast support stays
Power lines
Winching
Aerial ropeways
Mining
Crane construction
Drilling

DESCRIPTION

The DIGIFORCE is an instrument that enables the measurement of tension in wire, strand, cable and rod without contact.

It operates on the principle that when a tensioned member anchored between two points is struck it vibrates at a frequency related to its tensile stress. The DIGIFORCE detects the frequency of vibration when held in close proximity to the member and computes it into a force value on the digital display.

The DIGIFORCE was primarily designed to address the issue of tension measurement of the cables used during the fabrication of pre-stressed concrete, however, it does lend itself to other applications on occasion. We will assess each application on an individual basis in order to ascertain the suitability of the DIGIFORCE and advise you accordingly.

The DIGIFORCE is a portable, battery-powered unit housed in a robust hand-held enclosure with an alphanumeric display and push-button membrane keypad.

Very quick and easy to use, the DIGIFORCE requires only two pieces of information to be keyed in; the length of the member between its fixed points and its weight in grams per metre. The member is then struck, causing it to resonate whilst the DIGIFORCE is held in close proximity to sample the frequency, within a few seconds the tension force is displayed on the screen.

The DIGIFORCE has a datalogger facility enabling test results to be saved and downloaded to a PC via an RS232 serial port and is supplied in a robust carry case with a mallet, laminated look-up tables for the weight of wires, strands, cables and rods and a ferrous responder for use with non-magnetic members.

Transducer Specialists...

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SPECIFICATION

CHARACTERISTICS	DIGIFORCE	UNITS
Display:	Alphanumeric	
Tension Output Units:	kN, lbf & kg	
Resolution:	2	decimal places
Accuracy:	<1	%
Frequency Response:	1.5-70	Hz
Member Diameter Range:	3-30	mm
Member Length Range:	1-10 (5m is optimum)	m
Compatible Member Types:	Ferrous or non-ferrous wire, strand & rod	
Environmental Protection:	IP65	
Operating Temperature:	-10 to +50	°C
Weight:	355	grams
Integral Battery:	9V PP3 Lithium	
Outputs:	RS232	
Datalogging:	On board memory (500 readings) with data log & dump	

Information Required:

Length of cable between anchor points, accurate to 5mm

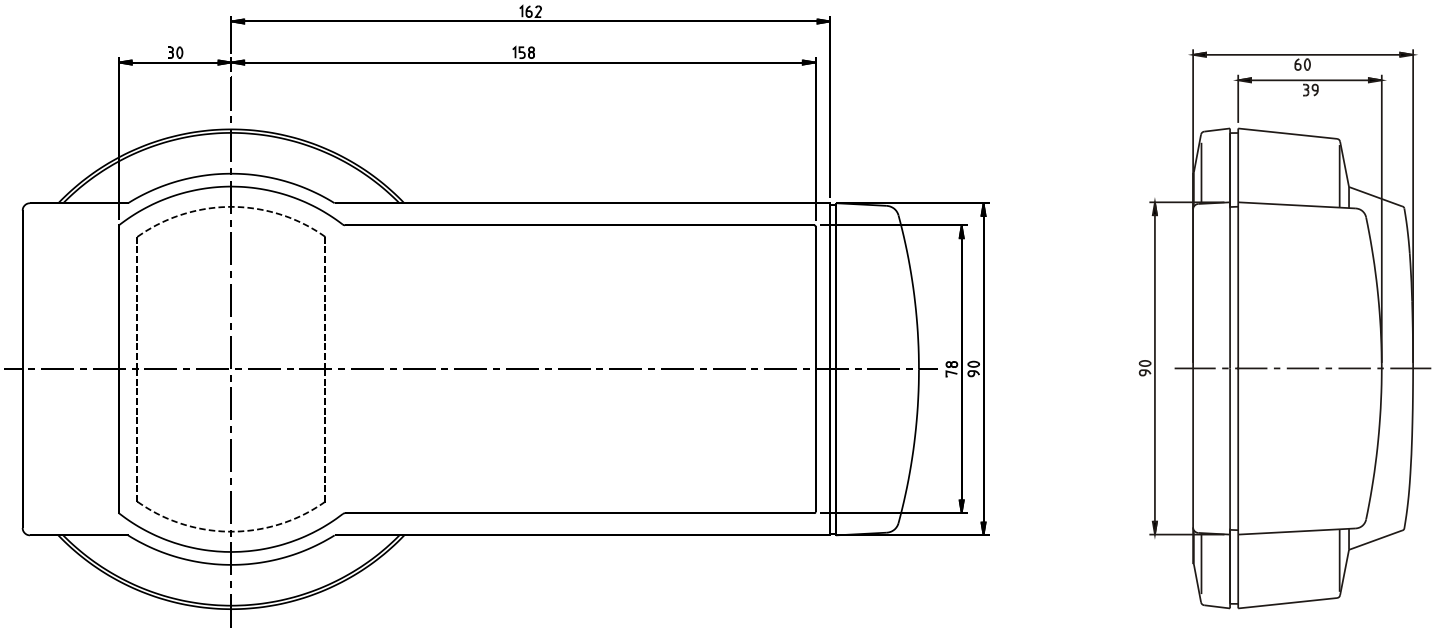
Weight of cable in grams/metre (guide tables for common cable type supplied)

Accessories Supplied:

Striker

Reference tables for common cable types

Rugged carrying case



All dimensions in mm