

# Strain Gauge Based Submersible LOAD CELL

STALC  
Series



- **Capacities 1kN to 50kN**
- **Fully submersible to an external pressure of up to 70bar**
- **Pressure Compensated Design**
- **Robust Construction**
- **Simple Installation**
- **High Performance**
- **High Sideload Tolerance**
- **3 YEAR WARRANTY**

#### Options Available

Other Ranges Available on request

Equivalents to other manufacturers' available

Different Cable Lengths

## DESCRIPTION

The STALC series of submersible load cells has been designed for measuring compressive loads from 1kN to 50kN. The products can be fitted into new or existing triaxial chambers.

The design features an internal pressure compensation system that eliminates zero offset changes when the load cell is subjected to external pressure changes. Being insensitive to cell confining pressure, the load cell can be used inside the triaxial chamber - measuring the load from within the chamber also eliminates the effects of piston friction.

The use of specially selected heat treated stainless steel and precision strain gauges ensure optimum performance and excellent long term stability.

Transducer Specialists...

## APPLIED MEASUREMENTS LIMITED

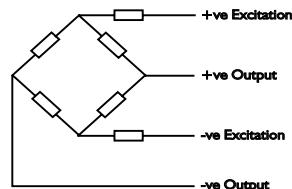
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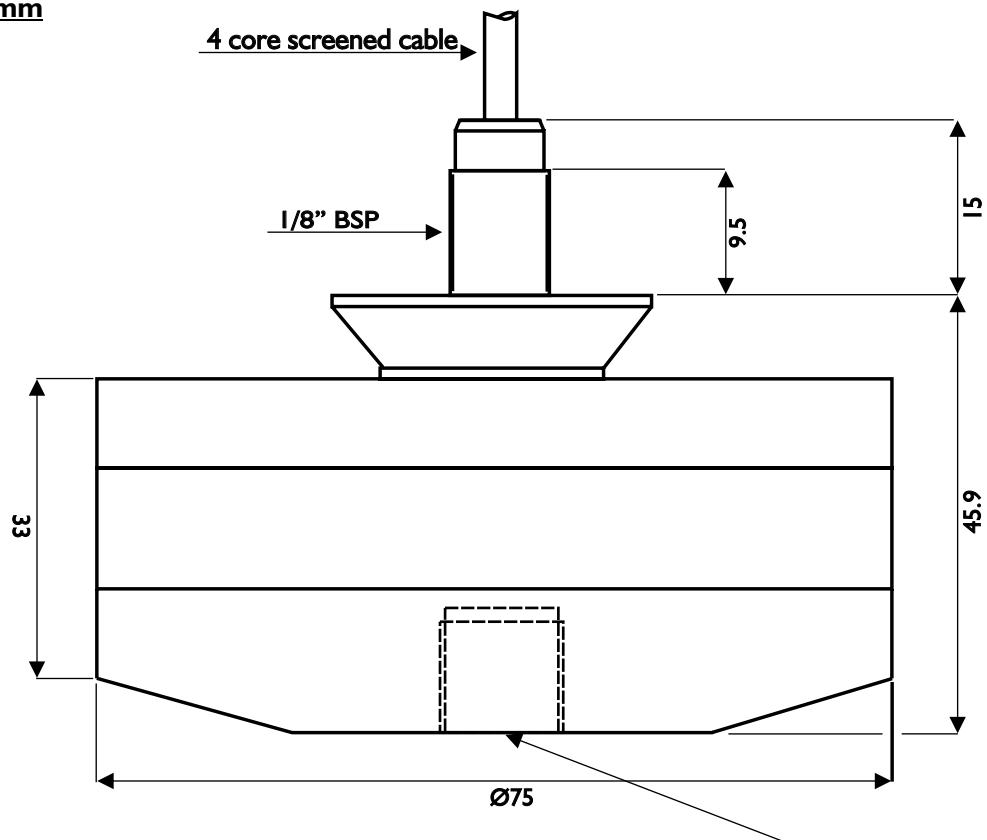
# SPECIFICATION

Wiring Schematic Diagram



CHARACTERISTICS	STALC	UNITS
<b>Rated Capacities:</b>	1, 3, 5, 10, 25, 50	KN
<b>Rated Output:</b>	2.0 nominal	mV/V
<b>Non-linearity:</b>	<0.05	±% of Full Scale
<b>Hysteresis:</b>	<0.1	±% of Full Scale
<b>Temperature Range: Operating</b>	-20 to +80	°C
<b>Compensated</b>	0 to 50	°C
<b>Temperature Effect: On Output</b>	<0.01	±% of FSO/ °C
<b>On Zero</b>	<0.02	±% of FSO/ °C
<b>Safe Overload:</b>	150	% of Rated Capacity
<b>Ultimate Overload:</b>	300	% of Rated Capacity
<b>Excitation:</b> <b>Recommended</b>	10	Volts AC or DC
<b>Maximum</b>	15	Volts AC or DC
<b>Input Impedance:</b>	375 nominal	Ohms
<b>Output Impedance:</b>	350 nominal	Ohms
<b>Insulation Impedance:</b>	>2000 (bridge to ground) & >1000 (shield to ground)	Megaohms
<b>Deflection at Rated Capacity:</b>	<0.05	mm
<b>Weight:</b>	0.85	Kg
<b>Construction:</b>	Stainless Steel	
<b>Environmental Protection:</b>	Fully submersible to 7000kPa	
<b>Cable:</b>	3 Metre 4 Core Screened	

All dimensions in mm



M10x1.5x8DP

