

# PRESSURE DIFFERENTIAL GAUGE TORQUE MEASURING SYSTEM

# DIGGA



## DETERMINE USABLE TORQUE

The Digga Electronic Display Gauge Kit displays the differential pressure or usable hydraulic pressure. This pressure displayed on the digital screen allows the user to cross reference the displayed pressure with the torque chart supplied, to determine the theoretical torque generated by the planetary drive unit.

## FEATURES

- ✓ Digital display of analogue signals.
- ✓ Clear 4-digit 7-segment LED display.
- ✓ Up to 3 analogue inputs ( 4.. 20mA or 0 .. 5 V).
- ✓ Accuracy  $\leq \pm 0.5\%$ .
- ✓ Differential measurement possible.
- ✓ Analogue output (4.. 20mA or 0 .. 10 V).
- ✓ Up to 4 relay switching outputs.
- ✓ RS232 interface.
- ✓ Voltage supply - 12 .. 32V DC.
- ✓ Option for PT100 sensor input or frequency input.



The digital display units in the series HDA 5500 are micro processor controlled display and monitoring units designed for control panel mounting.

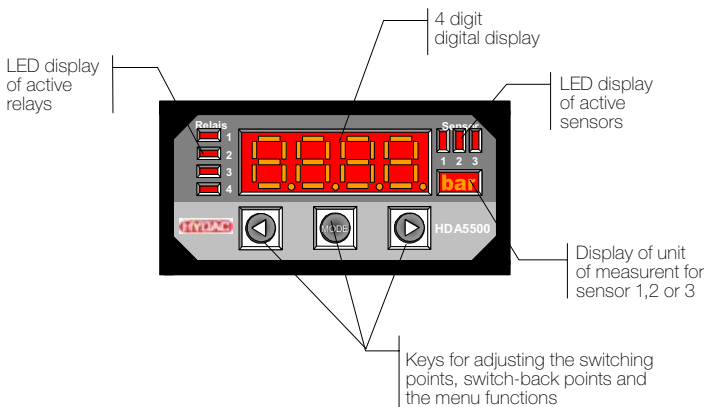
This kit operates on a supply voltage of 12 -32V DC.

## IDEAL USE

Accurately measures the true hydraulic pressure that is being applied through the hydraulic motor and gearbox of your drive unit.

## MACHINE SUITABILITY

Excavators, skid steer loaders and telehandlers.



### DIMENSIONS

Control Panel Housing	3.7" x 1.8" x 4.2"
Control Panel Cut-out	3.7" x 1.7"
Front Panel Thickness	.04"
Maximum Installation Depth	4.72"

## WHY USE A TORQUE MEASURING SYSTEM?

When Screw Piles/Piers are installed, a torque reading is required to ensure that these have been installed to the correct specification. Project engineers will generally demand that a specific torque requirement be reached, depending on what the piles/piers are being installed for.

Traditionally, torque is calculated by a single sensor gauge located at the hydraulic pump (A) in the excavator. This is not a true accurate measurement, as pressure is lost as the oil travels up the boom to the Drive Unit. Added to this is also another loss factor of back pressure created as the oil is transferred back to the parent machine. Pressure readings can be out by as much as 15-20% by the use of this single gauge system.

Digga's Torque Measuring System comprises of two sensors, the first sensor is located on the supply line at the entry to the drive unit (B). The second sensor is located on the return line where oil leaves the drive unit (C). A microprocessor calculates the 'actual usable' pressure using these two sensors, giving a true reading which is up to 12-15% more accurate than traditional methods. The reading is displayed in BAR or PSI depending on the option chosen at the time of purchase. This figure is correlated to a supplied torque chart to give the pressure reading in Nm or Ft/Lb.

