

Torque Tool Control System

INTELLIGENT CONTROL SYSTEMS

Product Number:
ITE-0056-DR-0010-00



The torque control system offers an accurate and repeatable solution for the control of torque tools in high integrity applications.

The system consists of a single valve pack with a fully integrated proportional control system. The compact unit is suitable for use with a variety of torque tools and other intervention tooling and installed on workclass ROV's

- Accurate and repeatable torque control
- Depth rating 4,000msw (13,123ft)
- Fully secure calibration and setup
- Datalogger system
- Control of latches and/or XYZ motion
- Easily portable between tools and ROVs
- Clear user interface and auto calibration
- Dual torque tool version available
- Various external sensors available



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Hydraulic Valve Fit	1 x NG6 (2x NG6 optional) Pressure & Flow Control Proportional Valve drives use stable 12 bit Constant Current Drive Pressure Control Valve has 250 bar transducer to monitor tool pressure 4 x NG3 Bi-directional solenoid valves with externally adjustable fully shrouded meter out throttles
Optional Fit	Externally adjustable pressure reducing valves for each NG3 valve with corrosion resistant coating
Sensors	8 x Sensor Inputs with software selectable mode: 4-20mA or 0-10V analogue inputs or 24v Digital Sensors with High Speed (8kHz) Counters for TT turns count, etc (option)
Analogue Sense	4 x 16 bit Analogue Inputs 4-20mA, 0-10v, Strain Gauge etc. 12 bit measurement resolution Auto Zero available on all inputs Strain Gauge inputs feature Subsea auto zero to remove large scale offsets directly at the subsea input
Pressure Sense	250 bar (3,626 psi) Tool Pressure Transducer fitted as standard 2 x 250 bar (3,626 psi) Pressure Sensors (option) 400/690 bar (5,801/10,000 psi) sensors options
Hydraulic	System I/P Pressure 315 bar (4,568 psi) max. Tool Pressure 2-210 bar (29-3,045 psi) Tool Flow 0-32 L/min (cw & ccw) (0-8.4 gpm) Solenoid Ports 0-11 L/min, 5-210 bar (0-2.9 gpm, 72-3,045 psi) Externally adjustable flow & pressure
Hydraulic Ports	Pressure & Tank - 3/8" BSP Torque Tool - 3/8" BSP Solenoid - 1/8" BSP Fill & Drain - 3/8" BSP Tool Case Drain - 1/8" BSP
Material	6082 Al Alloy Anodised to BS5599
Power	90-125 Volts ac, 45-66 Hz 150 Watts (+ Lights) 24V Raw, unsmoothed DC (option)
Data	RS485/232 fully isolated to 1500v Auto Baud rate detection QTP/STP copper link or integrated into ROV data hub if available Ethernet, fully isolated to 1500v, available or retrofitted if required (option)

Diagnostics

Monitoring of:
AC Input Volts
AC Input Currents
Valve Volts & Current
Electronic Supplies Volts & Current
Internal Oil Temperature
Hours Run Meter
Communication Protocol
Alarm Data Logger
Insulation Resistance
4 x Water Detector Points

GUI

The GUI is completely under the users control with custom graphics, mathematics to suit tool requirements

Software

All calibration & settings fully password secured with security system that allows user to control which parts of the system are accessible to field technicians. System Software with comprehensive user settings for calibration, interlocks, semi-automatic control, Alarm Settings Default States, Datalogger, Survey Interface etc.

Mathematics

Using the integrated maths pack, the user can quickly create new functions, interlocks or automatic procedures.

Datalogger

Log job data to disk as required with job notes. All of the Datalogger fields are fully user definable

Survey Interface

Can be connected to external hardware of ROV system using user-defined protocol over RS232 link to pass any data backwards or forwards

Camera & Lights

Powers 2 x PAL/NTSC cameras for connection to ROV video suite. Lights options allows for the control of 2 x 250W 115 v AC lights for additional skid lighting

Auto Calibrate

Using a Torque Analyser with a serial output, this feature allows rapid calibration of the Strain Gauge Sensor & Pressure Control valve. Fast calibration mode for rapid setup using ROV HPU (option)

Compatible

Most spares are retro-fittable into original Jupiter Lite TTCS units