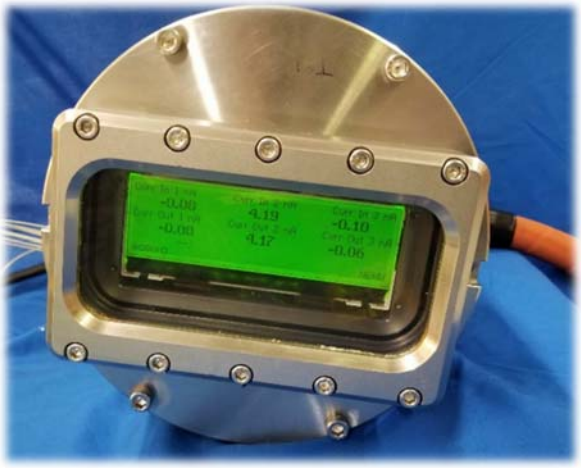
Applied Automation & Controls Inc

Titan – High Voltage Subsea Data Acquisition Unit



Highlights

The Titan Subsea acquisition unit is a self-contained rugged and efficient subsea data acquisition system specifically designed for ROV deployment on subsea control pod, umbilical cables and wellhead sensors. The unit has been design to be installed in two different positions on the subsea equipment. The high voltage side and the low voltage side. When configured for high voltage measurement the unit is installed between the umbilical cable and subsea pod's electrical flying leads (EFLs) and measure the current and voltages on the different power lines (1kV) with full isolation. When configured for low voltage application the unit also be installed in between the subsea pods, wellhead equipment, and measures the currents/voltages on the low voltage lines (36V). In both configurations, complete electrical isolation is available between the unit and the electrical cabling.

Current measurement is performed by means of hall-effect transducers. Voltage measurement is done by means of optically isolated amplifiers. The data is recorded in internal memory, displayed on the screen and transmitted over an Ethernet link to a remote PC.

Optional parameters such switch closures and non-isolated low voltages can be measured. The standard unit draws its power from the ROV power source and can run for indefinite periods.

Technical Specifications:

Environmental Specifications:

Operating Temperature	-30C to 85C
Pressure Rating	5200psi (12kft subsea)

Input Output Specifications:

Power Supply	9-36VDC, 200mA
Analog Inputs	24bit Delta-Sigma, 1kHz 6xCurrent (isolated) 6xVoltage (isolated) 8 x 4-20mA
Analog Outputs	4 x 4-20mA
Digital/Frequency Input	8 x up to 50kHz
Digital Outputs	8 DC PWM

Processor Specifications:

CPU	ColdFire 250MHz

Communication Ports and Protocols:

Serial Ports	RS232,
CAN Ports	J1939/CANopen/SDS
Ethernet Ports	100BaseT/WiFi
Protocols	TCPIP, HTTP, FTP Modbus/RTU, ASCII

Physical:

Dimensions	10" D x 16" L
Material	UNS S32750
Insulation Resistance	500 MΩ
Connector	ODI wet mate
Part Number	00-70909

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