ECU-4x8

SUBSEA CONTROLLER

Used to control electric & hydraulic ROV's, manipulators, hydraulic valve packages, tool systems & for subsea & industrial applications.

Communicates to surface remote control station over RS485 twisted pair for 2,500ft (0.75km) maximum range. Can interface to fiber optic link for 6 mile (10km) range.

All system functions can be controlled with surface laptop PC running Sub F/X control software. Redundant control using optional surface control unit with panel mounted switches, joysticks, potentiometers, LED's, etc.

System using single main board can control 8 switch closure outputs, 8 digital inputs, 8 analog outputs (0 to +5V or -5 to +5V), 6 analog inputs (0-5V) & 2 4-wire bridge inputs (0-100mV).

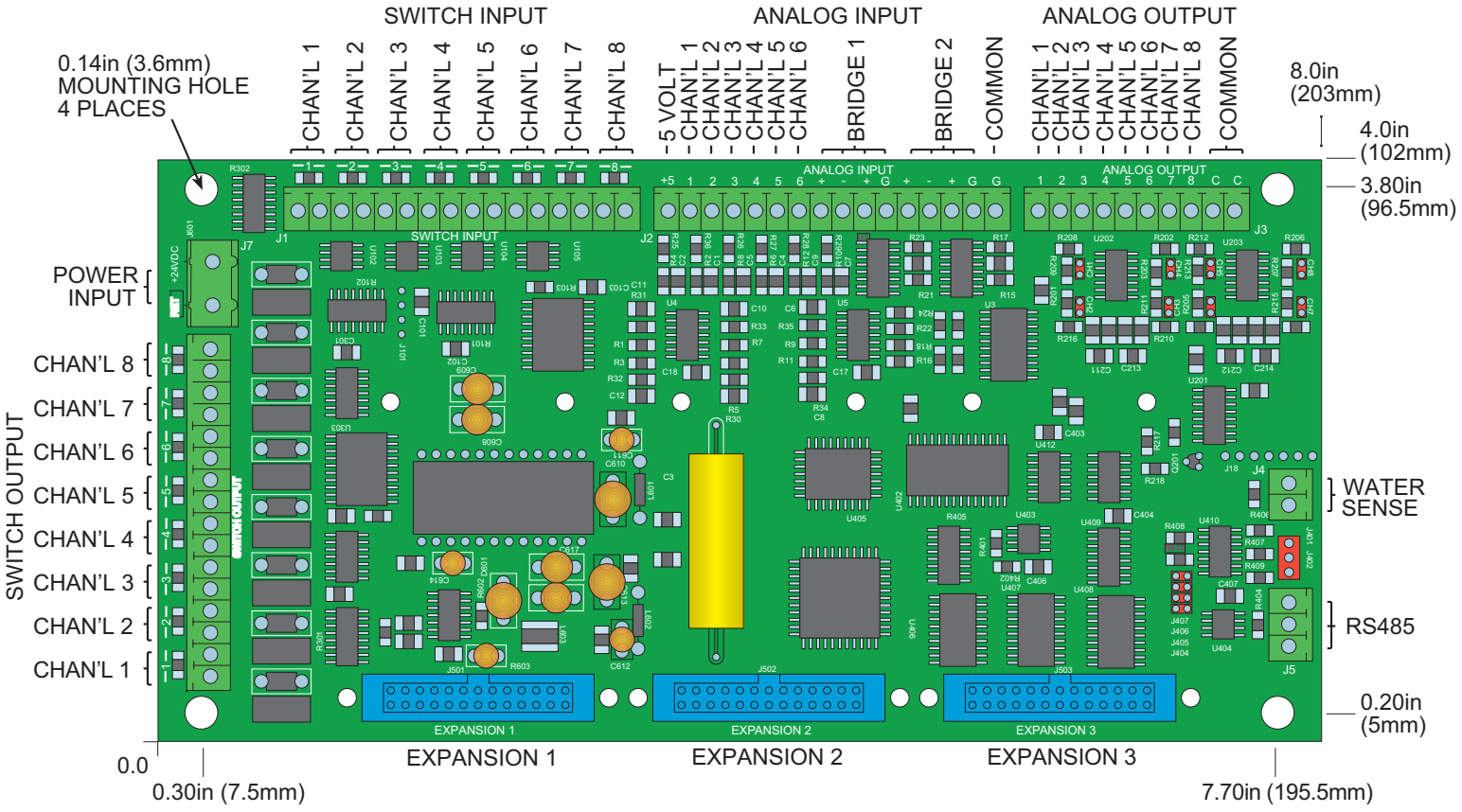
System using single main board and plug-in expansion cards can have up to 32 switch closure outputs, 32 digital inputs, 8 PWM outputs (0 to 100% @ 10A each) & 8 quadrature encoder inputs.

Other expansion cards include an RS232 card with 4 3-wire ports, a 2-channel servo card & a surface controller card.

Up to 16 main boards can be "daisy chained" for control & monitoring of very large systems.

Sub F/X control software operates in Windows 98 & NT & provides a fully customized graphical user interface.

Main board and expansion cards feature pressure tolerant electronics rated to 8,500psi (580 bar).



TECNADYNE
ADVANCED PRODUCT DEVELOPMENT

14627 Calle Diegueno, PO Box 676086, Rancho Santa Fe, CA 92067, USA
Voice: 1.858.756-9660x101 Fax: 1.858.756-9880
E-mail: tecsales@tecnadyne.com URL: http://www.tecnadyne.com

ECU-4x8

SUBSEA CONTROLLER

Specifications

Dimensions:
Main Board: 8.0in (203mm) long x 4.0in (102mm) wide x 1.0in (25mm) high w/o expansion cards.
Expansion cards increase height to 2.0in (50mm).

Power Requirements:
12 - 24 VDC,1 amp.
Total current, including load current, not to exceed 50A.

Main Board Contains:
8 High Current open drain diode protected outputs capable of switching up to 10 amps each.
8 Switch contact closure inputs.
16 LED indicators to display any active digital input.
8 8-bit analog outputs (0 to +5 volt or -5 to +5 volt, individually jumper selectable) 5mA.
6 12-bit analog inputs (0 to +5 volt).
2 12-bit analog inputs (0 to 100mV) 4 wire bridge.
1 Water sensor alarm input.
RS485 half duplex communication port.
2 TTL 3-wire serial ports (RS232).
3 Expansion slots (see Expansion Boards).
Board identification jumper selectable (1 of 16) for multiple cards on bus.
Sub F/X software runs on Windows 98 & NT, and provides a fully customizable graphical user interface with on-screen switches & LEDs, compass rosette & bar & digital displays.
Sub F/X software also includes power mixing for joysticks, trend graphs, sensor calibration, if-then-else programming & more.

Expansion Boards
4 different expansion boards can be plugged into any of the 3 available expansion slots on the main board. Any combination of expansion boards can be used (3 maximum) including:

*PWM-8 - (*8) High Current open drain diode protected PWM outputs capable of controlling up to 10 amps from 0 to 100%.

*DIO-8 - (*8) High Current open drain diode protected outputs capable of switching up to 10 amps with indicator LED's.

*DIN-8 - (*8) Switch contact closure inputs.

*SERVO-2 - (*2) Closed loop velocity servos with high current PWM and 0 to 5v DC output (8-bit), jumper selectable. Feedback input up to 5v DC. Servo supports programmable feedback and loop gain stored in EPROM on card.

ENC-8 - (8) 16-bit TTL level quadrature encoder inputs.

SCU-1 - Converts ECU card to surface control with 32 LED outputs, 32 switch inputs.

SERIAL 4 - (4) 2-wire RS232 ports, 2400-115k baud.