

“Local” Control Electronics

PSS has developed a range of electronics control circuit boards which can be placed in oil filled junction boxes “local” to the elements they manage. These can be used as standalone controllers or as part of an ICE™ control network used on the latest PSS systems. They are used extensively in ROV hydraulic valve packs, work skids and manipulator products, but have also been used in applications as diverse as pipe-crawlers and offshore platform ballasting control systems.

All products in this range have specially developed pressure tolerant electronics, rated and individually tested for 4000m ambient pressure. Communication is by RS485 half-duplex serial data with multiple objects operated from a common data bus. Libraries of .dll files exist to allow the board to be operated from a Windows PC.

The boards are fuseless and most have protection from external short circuits and over voltage conditions. On board processor power supplies are protected from sensor supplies so that fault conditions can be diagnosed. A feature common to many of the boards is the ability to operate from unregulated DC power (i.e. rectified AC). This eliminates the need for large smoothing power supplies which can only be placed in pressure vessels.

These products can be supplied as components to system builders or as part of a PSS total solution.

Features

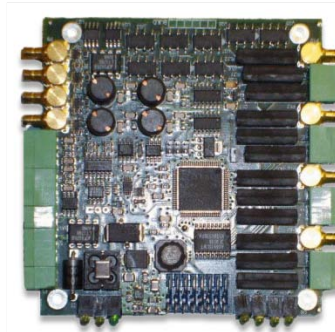
- Rated to 4000m ambient depth pressure
- Fuseless
- Full remote diagnostics



Local Valve Controller – 32 solenoids, 12 sensors



Local Alarm Module
16 Water detects
2 grounds fault



Local Camera Interface
4 cameras, zoom & focus
4 light dimmer controllers



Local Digital Interface
6 serial sensor channels
32 digital inputs



Specification

The following table lists some of the most common products in the range. We also have matching power conditioning and other sensor circuits. For full details please contact PSS with your application

Name Feature	LVC Local Valve Controller	LDI Local Digital Interface	LSI Local Serial Isolator	LAM Local Alarms Module	LPDC Local Power DC	LPAC Local Power AC	LCI Local Camera Interface	LSB Local Sensors Board
Operate from unsmooth 28V	Yes	Yes						
Operates from smooth 24V	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Solenoid Drivers (with current measurement)	32							
Digital inputs	4	32						16
Water Detect	2			16			1	2
Ext analogue sensors	8	1			4	4	1	16
PRT interface	2							
Ground fault detect				2				
Digital output					2			
Camera video/focus/zoom							4	
Light driver							4	
RS485	Host	Host +6		Host	Host	Host	Host	Host
RS232/RS485			8				(4)	
24V supplies	1	3			8		4	32
12V supplies		4			8			
5V supplies	1				8			1
110Vac supplies						8		
Internal voltage sensors	3	7						37
Format (mm)	210x110	210x110	96x90	96x90	100x160	100x160	96x90	210x110



Platform foundation ballast control (72 remote control valves, 150 sensors)

One of many applications for PSS "local" controllers

Datasheet: A001-350-073 Issue 2

The specification details are illustrative for marketing purposes only. Actual equipment may be different as a result of product improvement or other reasons. Specific interface and performance information should be reconfirmed at time of order placement.