

New hose monitoring system

Eaton has introduced a new hose condition monitoring system that can actually warn of impending hydraulic hose failure, leading to significant economies from replacing hoses too early or suffering the cost and downtime of unplanned failures.

The patented LifeSense hose was developed by Eaton in conjunction with Purdue University and the Purdue Research Foundation's Office of Technology Commercialisation to continuously monitor the health of hydraulic hose assemblies and alert users as they approach the end of their life. The system monitors and tracks the health of each hose in a hydraulic circuit. Unlike current products it does not estimate or predict the life through arithmetic

calculations. It actually detects when a hose is approaching a point where it is likely to fail. An alert is then displayed on the machine and can be transmitted to the user so that the assembly can be replaced preventing downtime.

"Most hydraulic maintenance programs are designed to avoid hose failures by replacing assemblies at regular intervals, using a schedule based on usage data or past experience," says Doug Jahnke, Eaton product marketing manager. "As a result, a large number of perfectly good hose assemblies are discarded long before the end of their useful life out of fear that they might fail."

The LifeSense hose allows the user to utilise virtually all of its useful

life, which according to laboratory tests can mean an average life extension of 50 percent, reducing replacement costs and the associated downtime and damage of an unpredicted hose failure, while providing peace-of-mind.

"Hydraulic hose failure is one of the largest causes of unplanned maintenance events," adds Jahnke.



The Eaton LifeSense hoses detect and warn of approaching failure.

"Hose failures in the field present serious safety issues, environmental concerns and result in unscheduled system downtime, all of which have serious economic impacts."

The initial LifeSense hose range will include the widely-used 8, 12 and 16 two-wire hose assemblies. The technology is currently available for trial with factory-made assemblies including straight JIC swivel fittings.

Heavy duty joysticks

Penny + Giles has introduced the JC1500, a new single-axis joystick controller designed for heavy duty applications requiring smooth proportional control. The new unit features contactless, Hall-effect rotary position sensor technology to provide reliable and accurate output signals and benefits from a second output to enable error checking of system integrity.

The rugged, low-profile design of the JC1500 (53mm under-panel depth) complements the company's existing JC150 range of potentiometer joysticks and uses the same panel mountings and range of handles and grips as JC150 and JC6000 models, allowing easy and modification-free replacement or upgrade.

Additional features include an IP69K rating on the sensor assembly, spring-to-centre or friction-hold lever

action, lock and detent features, 5Vdc or 9 to 30Vdc supply, dual-channel output with optional ramp directions, analogue (Vdc) or digital (PWM) outputs and an operating range from -40°C to +85°C.

Typical applications for the JC1500 include aerial work platforms and specialist off-highway vehicles where reliability and strength are essential.



The new Hall-effect joysticks

Rugged cab tablet PC

Mobexx - the rugged mobile computer company - has introduced the Viliv X70 EX seven inch tablet PC to its product range. The innovative touchscreen computer is suitable for semi-rugged indoor or in vehicle applications. The tablet PC runs Windows 7 operating system and has a power-efficient Intel Atom processor.

The device features touchscreen input, integrated GPS, wireless multi-connectivity with Bluetooth GSM/GPRS and 3G, a camera and very long battery life. A Solid State Drive (SSD) provides data storage, giving up to 64 GB of storage with the addition of easily swappable SSD cards if more is needed. As a standalone item it does not need to be integrated into the machine, although mounting and connection kits are available.

Mark Dale-Lace of Mobexx said: "The seven inch format ultra mobile tablet PC is proving popular for all kinds of mobile and industrial applications such as logistics, distribution, field service, engineering and security where paper documentation is being rapidly replaced by electronic systems. It is a good alternative to larger tablet PCs or laptops and provides better ergonomics than smaller hand held computers or touchscreen PDAs where a larger daylight viewable screen is required but without the weight of a larger device."

The seven inch mini PC is ideal for stand-alone in-cab information provision.



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