

## Small and reliable joysticks provide safe control for hydraulic equipment 01.12.04



Italian manufacturer of radio remote control systems, Autec Srl, is using Penny + Giles JC400 multi-axis joysticks in its C26PRO waist-portable transmitting unit. Designed to control industrial and building lifting machinery, the joysticks are reliable, easy to use, and give the user total control to ensure hydraulic equipment can be managed safely.

Founded in 1986, **Autec** designs and manufactures industrial radio remote controls at its site in Vicenza, Italy. Autec prides itself on delivering safe and reliable control systems and was looking for a supplier of reasonably low cost, small and reliable joysticks. Following successful trials the company selected **Penny + Giles JC400** joysticks.

"C26PRO is used in industrial and construction environments. It uses proportional joystick technology to manage the speed and movement of hydraulic cranes," explains Antonio Silvestri, Technical Director, Autec. "Safety is paramount in these situations and the C26PRO is certified for functional, electric and environmental safety by the IQSE laboratory of TUEV AUTOMOTIVE GMBH. To ensure the C26PRO achieved this approval we needed to chose a joystick which was TUV approved and sealed to IP65 for use in outdoor and harsh industrial environments – JC400 was an obvious choice."

"Penny + Giles' potentiometric technology is proven as reliable, and the mechanical design of the joystick is smart enough to make it small and robust, " continues Mr Silvestri. "Reliability was also a major key factor in choosing the Penny + Giles joysticks. JC400 has an operational life in excess of five million cycles which means we can offer a three year warranty for the C26PRO. We have a good working relationship with Penny + Giles; they have been very flexible in accommodating our requirements."

Developed for use in those applications where compact size and functionality are vital, JC400 offers proportional, fingertip control in up to three axes. "Our joystick controllers use established technology for a long and consistent operational life," comments Mike Iles, Business Development Manager, Penny + Giles.

The C26PRO consists of a waist-portable transmitting unit and an electronic controller. The transmitter/receiver systems can be set up in many ways, including controlling the machine from two different transmitting units and controlling two machines that work either singly or together with the same transmitting unit. JC400 can be specified to generate three switched outputs per half axis, or analogue and switched reference signals which are proportional to the distance and the direction over which the handle is moved.

The distance and direction over which the handle is moved is proportional to the movement of the hydraulics.

Penny + Giles' JC400 range of ergonomic handles feature rotary operated potentiometers, or switches, for a third axis of control, or 'Person Present' switches that can be used to verify the change in signals from the joystick, improving the integrity of a control system.

Lever operating forces are selected to minimise operator fatigue whilst ensuring the joystick returns to, and remains in, the safe central position when released. The JC400 can also be fitted with a choice of mounting flanges and can be customised according to applicative needs.

Following its success with the JC400, Autec is considering using Penny + Giles JC120 single-axis fingertip joystick in other projects.