

Ruppel Hydraulik introduces compact proportional amplifier for hydraulics

A speed control for hydraulically powered sweepers on municipal utility vehicles has been developed by Ruppel Hydraulik of Bad Münden, Germany. It is based on a proportional amplifier which can be fitted as a built-in device in the dashboard.

Traditionally municipal sweepers have operated at a fixed speed, so have been unable to adjust to changing conditions. To address this issue and thus improve sweeper performance, Ruppel has developed a system based on an EK-ES 12-24 single-channel amplifier, which activates a proportional valve using a solenoid. The output current strength can be adjusted through the range 0–2500 mA, and a minimum and maximum value can also be specified.

The dither frequency is also adjustable, with the result that the amplifier can be customised to suit a wide range of valve

types and applications. The driver specifies the target value via an integral potentiometer. An On/Off switch is also incorporated into the device. The selected potentiometer setting can be locked, and external locking and release are also possible. The safety features of the EK-ES 12-24 include short circuit, overcurrent and overvoltage protection.

Due to its very compact dimensions, the new amplifier is suitable for integrating in existing structures. Alternatively it can be installed on a standard rail as an add-on device. A flexible medium-sized company with extensive experience in addressing specific customer requirements, Ruppel Hydraulik also supplies the EK-ES 12-24 in combination with specifically tailored software customisations. The device was exhibited for the first time at the 2013

Hannover Trade Fair and generated considerable interest among manufacturers of mobile hydraulic machines and other potential users, thanks to its extremely compact size and affordable price.

As system supplier, Bad Münden-based Ruppel Hydraulik develops hydraulic drive systems and controllers which are used worldwide. They can be found in container cranes, construction machinery, municipal utility vehicles, ships, industrial machinery and other hydraulic applications.

In-house development

Founded in 1990 by Gerhard Ruppel and currently employing a staff of 23 at its Bad Münden site, the company boasts an extensive portfolio of modular solutions and components, such as pumps, motors, screw-in valves etc. At the heart of these systems however is the tailored control block, which ultimately houses the intelligence of the drive. The electro-hydraulic control technology is also developed in-house, so that Ruppel is a true turnkey supplier of complete and fully tailored drive systems.

Among the many projects completed in previous years are some unusual solutions, such as hydraulic sway control devices for container cranes and hydraulic machinery which works on the ocean bed 2500 metres below the surface.

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The proportional amplifier is easy to integrate in the surrounding structure.

