Smart encoders & actuators

Special stainless steel encoders for food industry

Lika Electronic introduces a new range of industrial, miniature and fieldbus stainless steel encoders providing superior characteristics suitable to withstand the harsh requirements of the food & beverage industry as well as the most aggressive operating environments such as chemical and petrochemical industry, mobile equipment, marine installations, pharmaceutical, medical and surgical applications.

Hygiene, safety and security requirements are particularly stringent in the food and beverage industry.

Companies in this sector need to comply with very severe regulations which impose the highest demands on the quality, safety and durability of materials and equipment.

Materials must be first-rate, tough and resistant to corrosion and salt as well as to cleaning agents and chemical contaminants; furthermore often they must cope with the rigours of continuous sanitary wash down and sterilisation processes, even at high temperatures.

Equipment must be built-to last and needs to be cleaned easily and quickly to avoid harmful substances to accumulate, thus a high degree of protection is necessarily required.

A comprehensive line of Lika Electronic's incremental and absolute encoders is today offered with AISI 410 stainless steel enclosure and specific increased characteristics to meet such hard requirements.

They all feature stainless steel frame, flange and shaft with specific hygiene design and smooth and paint-free finish which ensure exceptional resistance to corrosion and antibacterial properties and avoid trapped contaminants.

In addition they mount rugged longlasting bearings protected in a stainless steel housing for enhanced encapsulation. This results in a highrated IP protection (IP65/IP67) and excellent durability under extreme conditions and temperatures (both high and low).

Also connectors and cables are expressly intended to deal with chemical exposure and frequent aggressive cleaning; their materials specifically suit the demands of food processing applications.

Furthermore all exposed materials are selected to be non-toxic and safe for contact with edible products.

The new encoder range for food and beverage industry comes in both incremental and absolute versions and a variety of construction features, interfaces and functions to cover multiple areas of application.

I58SK is the optical incremental encoder for reliable measurements in demanding food-grade applications offering 58-mm clamp flange and 6 to 12-mm solid shaft. It is available in both square wave and sinusoidal versions and the most wide choice of output circuits: NPN, PNP, Push-Pull, Line Driver, Universal Circuit as well as 1Vpp. It boasts a max. 10000 PPR resolution (2048 PPR for sine-cosine version) and 12000 rpm shaft rotational speed.

Cable and M23 connector outputs complete the electrical configuration. Among the key benefits the extended operating temperature range (-40°C +100°C / -40°F +212°F). When the space is constrained, miniature MI36K/MC36K is the ideal choice. This versatile and low cost encoder provides 36-mm diameter compact housing and both solid and hollow 6-mm shafts.

Despite its small size, it ensures IP67-rated protection and high resistance to shocks, vibrations and large temperature fluctuations (-20°C +85°C / -4°F +185°F).

It further features an affordable yet proven magnetic scanning and delivers square wave signals through standard HTL and TTL output circuits. Resolution is up to 2048 PPR.

AM58SK is the high performance CANopen and Profibus encoder combining robustness, flexibility, interfaceability and accuracy for the toughest food applications.

It offers the highest versatility to accommodate the most diverse of mechanical and electrical requirements. It affords standard 58-mm flange diameter housing and both hollow (Ø 14, 15 mm) and solid (Ø 6, 8, 9.52, 10, 12 mm) shafts for a wide variety of mounting solutions.

The new absolute encoder encompasses high-efficiency optical components and offers a resolution up to 25 bits multiturn (13 bits singleturn per 4096 rev.). It can be easily integrated into industrial networks as it supports CANopen DS406 and Profibus-DP fieldbus communication interfaces for enhanced programmability and comprehensive diagnostic information including: resolution, counting direction, preset, offset, limit switches.

A number of superior characteristics makes AM58S K the excellent encoder for accurate positioning and long service life in food & beverage industry applications.