

2015-04-29

Department:
Product ManagementPublisher:
Linda Carnbo

Robust absolute encoders certified for Ex d and Ex t applications, zones 1/21

Leine & Linde introduces ATEX and IECEx certified absolute encoders, suitable for demanding offshore applications where they will be subjected to shock and vibration on a daily basis. The flameproof protection permits the encoders to be used in areas where an explosive atmosphere is likely to occur on occasions in normal operation.

“The ATEX and IECEx certified encoders are equipped with the same bearings as our heavy duty encoder series”, says Linda Carnbo, product manager for automation. “The bearings often determine an encoder’s lifetime, and our construction allows the encoders to be placed in the most demanding environments. Our encoders can be subjected to shock and vibrations daily without losing quality or accuracy.”

The encoder material (enclosure, flange and shaft) is stainless steel, with the grading EN 1.4404/AISI 316L. It is acid-proof and has a high corrosion resistance which enables use in marine and offshore applications with extreme demands for reliable and durable performance.

Customer adaptation included in Ex-certificate

One of the most important competitive advantages is Leine & Linde’s ability to make customised versions of the encoder. The certification for the encoder is made to permit a wide range of mechanical configurations according to the customers’ needs, thanks to a well planned development process.

Regarding the resolution, the encoder is available up to 31 bit multiturn (19 bit singleturn + 12 bit multiturn) and the scanning is based on inductive principle.

Flameproof and dustproof

One of the requirements for certification within gas and dust environments is that surface temperatures of the encoders need to be classified into temperature classes. Different materials have different ignition temperatures. “In order not to limit its usability, we made the encoder available in classes T4, T5 and T6, with a whole range of ambient temperatures and rotation speeds”, says Linda Carnbo.

“Since the ATEX and IECEx certificate covers both gas (Ex d) and dust (Ex t) groups, the encoders can be used in applications not only related to the offshore industries (where gas is common). That is why Leine & Linde has included the full interface range such as PROFIBUS, PROFINET, CANopen, DeviceNet, SSI and Endat”, Linda concludes.

Leine & Linde also provides Ex-certified cable glands and connectors. For non-used entries of the encoder, Ex-certified blind plugs are available.