# Safety in explosive environments

deTec4 Core Ex safety light curtain from SICK

Waldkirch, June 2015 – With the deTec4 Core Ex, SICK is setting a new standard for safety light curtains in explosive environments. Combined with the explosion-protected enclosure, it can be used in industrial sectors that need to implement measures for explosion protection and comply with applicable standards. The most striking feature is the optimized protection provided for both man and machine, even in explosive environments.

Explosive environments are governed by particularly stringent safety regulations and standards. Within them, it is possible for unprotected safety light curtains to trigger an explosion. SICK's explosion-proof enclosure with an integrated safety light curtain reliably mitigates the risk of explosion.

## Safety, even in extreme conditions

The rugged aluminum explosion-proof enclosure is available in four different lengths. This enables protective field heights of 600 mm, 900 mm, 1,200 mm and 1,500 mm. With a standardized resolution of 30 mm, it is possible to achieve a sensing range of eight meters. All the devices are permanently pre-installed in the protective housing in their as-delivered condition and can be put into operation quickly. Durable, easy-to-clean material, as well as protection against dust and water, ensure almost zero downtime – even in extreme conditions. All certifications confirm the material's excellent resistance with respect to explosions inside the housing.

## Certification with the highest protection classes

The explosion-proof housing for safety light curtains is designed and approved for use in hazardous locations according to ATEX as follows: II 2 G Ex d IIB T6 Gb in the case of gas, and II 2 D Ex tb IIIC T56°C Db in the case of dust. NFPA 70/NEC 500, Class I, Div. 1, groups C and D, Class II, Div. 1, groups E, F, and G, and Class III, Div. 1 also apply. What is more, the housing is compatible with numerous SICK safety light curtains and is ideally suited to use in paint booths, grain silos, facilities used by the chemical industry, pharmaceuticals manufacturing, mechanical engineering, and so on.

The explosion-proof housing and safety light curtain combination has undergone the appropriate tests and is currently the only solution on the market which is both pre-wired and UL-listed. It provides the very highest level of protection and reliably meets all the necessary safety standards and regulatory requirements.

Image: deTec4\_Core\_Ex\_IM0054762.jpg

The deTec4 Core Ex reliably averts the risk of explosion.

SICK is one of the world's leading manufacturers of sensors and sensor solutions for industrial applications. Founded in 1946 by Dr.-Ing. e. h. Erwin Sick, the company is headquartered in the German town of Waldkirch, in the Breisgau region near the city of Freiburg. It is a technology and market leader, maintaining a global presence with more than 50 subsidiaries and equity investments as well as numerous representative offices. In the 2014 fiscal year, SICK had around 7,000 employees worldwide and generated Group revenues of €1,099.8 million.