Vision ZERO accidents in the industry

Keeping people and equipment safe since 1951

LKV – MECHANICAL OVERLOAD PROTECTION

The Gigasense LKV Overload Guard is a versatile solution designed to serve as an overload guard, load guard, force control switch, crane guard, load limiter, or slack rope switch in lifting equipment. Crafted to handle forces up to 16 metric tons in a single rope part and accommodate a maximum rope diameter of 44 mm, the LKV ensures optimal safety and performance.

Quality | Maintenance free | Robust | Plug & Play

LKV – MECHANICAL OVERLOAD PROTECTION

Range of application

Seamlessly integrate the LKV on the stationary rope part without impacting the construction of your lifting equipment. With high repeatability and a fully enclosed, pressure-tight design, the LKV withstands corrosive environments and offers a hassle-free installation process.

Function

The LKV operates by attaching to a stationary rope part, utilizing deflection between two wheels and a clamping jaw. As the loaded rope tends to straighten, force is applied to the clamping jaw and pull rod. Once the pre-set switch value is reached, the pull rod triggers a micro switch, establishing a closed or open circuit, ensuring precision functionality.

To achieve unparalleled accuracy, the LKV features case-hardened wheels meticulously designed with precision rope grooves. The wheels and clamping jaws are equipped with rope tracks at 4 mm intervals to ensure a proper fit with the rope diameter. It's important to note that these wheels serve as dynamic support points rather than traditional wheels. Even under full rope load, the peripheral movement on the wheels is minimal, measuring only about 0.6 mm, including rope extension.

For added protection, it can be polyurethane-lacquered in extremely corrosive environments.

Safety

The Gigasense LKV ensures utmost safety by not directly affecting the construction of the lifting equipment. The locking device prevents unauthorized interference with switch settings, and its pressure-tight design protects against dust, dirt, damp, frost, and atmospheric conditions. Specially designed washers and spring elements resist fatigue, and the LKV maintains its set switch value even after fitting to a new rope. The spring washers are designed to resist overload.

Technical data

Capacity (single rope part)
40–16 000 kg
88–35 273 lb
5–44 mm rope diameter
0.19–1.73 inch

Max. contact load
250 VAC, 500 VA, 3A

Repeatability
± 1,5% of max. capacity

Protection class
IP 67

Temperature range
-25 to +60°C
-13 to 140°F

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GIGASENSE

Gigasense products within Force Measurement and Crane Safety are well known high quality products, built from many years' experience and used by leading heavy duty industry around the world.

Gigasense products meet the highest demands of performance level requirements.

Gigasense are represented by selected local distributors in more than 30 countries on six continents.

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