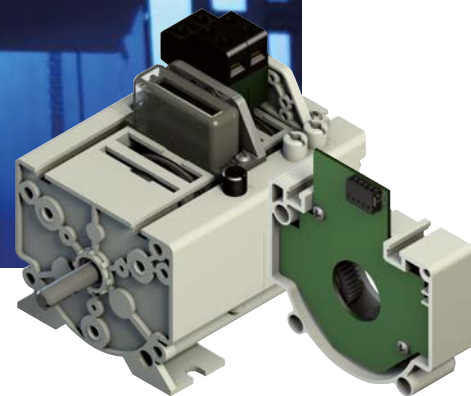


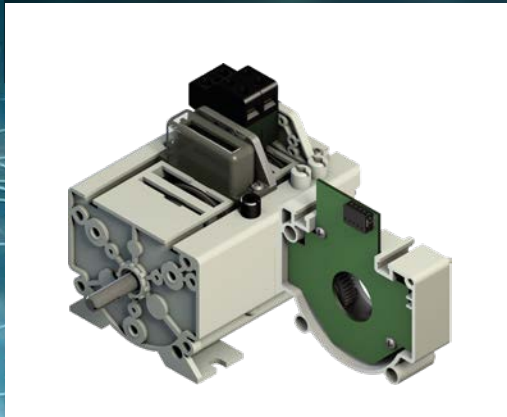


Controls and Sensors for Stage and Theatre Applications



OUR TECHNOLOGY PLAYS AN IN

Stromag Smart Cam®
with multi-turn absolute encoder



Stromag Light Cam®
with synthetic housing



GEARED CAM LIMIT SWITCHES FOR STAGE AND THEATRE TECHNOLOGY

Ensuring the safety in many of the world's most famous theatres and opera houses. The actors often work under suspended loads which are in motion throughout the performance. Depending on the production, stage podiums weighing several tons are often being moved, quickly or extremely slowly, across the whole stage for the duration of the performance. This process must be completely secure, as well as switched off at an exact position to stop the movement when required to ensure the actors are entirely safe.

Geared cam limit switches from Stromag reliably switch off sequences of motion and restrict machines with independently and precisely adjustable cam discs. Electrical drives and winches for upper and lower machinery are equipped with redundant braking systems and

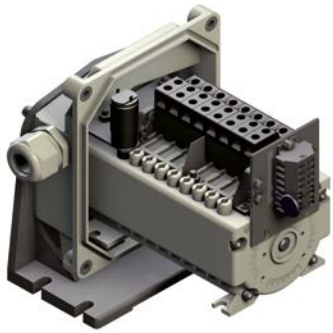
the geared cam limit switches are used for the safe switching off in the point hoists of upper machinery or for precise position sensing in spindle lifting devices in lower machinery.

The unique Series 51, based on a planetary form-fit gear system, is particularly popular in the wide-ranging field of theatre technology, which demands the highest standards of safety as per DGUV V17.

Many other famous theatres, including La Bastille in Paris, the Oslo Opera House and the Royal Opera House in London, use this technology from Stromag to help ensure they can be confident about the safety of the stage, and the technology is also now being applied to television studios and other stage applications across the world.

INVISIBLE BUT IMPORTANT PART

Stromag Series 51
with motor-driven block adjustment



Stromag Series 51
with aluminium housing and EZX



OUR COMBINED TECHNIQUE FOR SPECIAL REQUIREMENT

The form-fit Electromagnetic Spring-Applied Toothed Clutch EZX 0.1 has been developed specifically for use with stage hoisting gear and can be combined with all Stromag current geared cam limit switch series to fully meet all requirements of this special application.

- Internal and external centring of the input hub for direct flange-mounting of Controlflex couplings as well as chains and/or toothed pulleys
- Large bearing distances for taking up high radial forces
- Form-fit crown gear closed by spring pressure and opened electromagnetically
- Backlash-free torque transmission via double diaphragm
- Largely dimensioned coil for reliable switching via large air gap
- Clamping ring for backlash-free torque transmission to geared cam limit switch
- Additional form-fit shaft connection between clutch and geared cam limit switch
- In an open condition, the clutch acts as a brake for the geared cam limit switch. Accidental adjustment is prevented
- Additional centring for the provision of a contact ring for monitoring the switch condition of the clutch by means of non-contact switch (also safety approved)

Stromag Facilities

Europe

Germany

Hansastraße 120
59425 Unna - Germany
+49 (0) 23 03 102 0

*Clutches & Brakes, Couplings,
Geared Cam Limit Switches, Discs,
Wind Brakes*

Dessauer Str. 10
06844 Dessau-Roßlau - Germany
+49 (0) 340 2190 0

Electromagnetic Clutches & Brakes

France

Avenue de l'Europe
18150 La Guerche sur L'Aubois - France
+33 (0)2 48 80 72 72

Disc Brakes & Drum Brakes

Great Britain

Amphill Road
Bedford, MK42 9RD - UK
+44 (0)1234 324347

*Electromagnetic Clutches & Brakes,
Industrial Caliper Brakes*

North America

USA

31 Industrial Park Road
New Hartford, CT 06057 - USA
860-238-4783

Electromagnetic Clutches & Brakes

300 Indiana Highway 212
Michigan City, IN 46360 - USA
219-874-5248

Couplings

2800 Fisher Rd.
Wichita Falls, TX 76302 - USA
940-723-3400

*Geared Cam Limit Switches,
Industrial Caliper & Drum Brakes*

South America

Brasil

Avenida João Paulo Ablas, 2970
Jardim da Glória, Cotia - SP,
06711-250 - Brasil
+55 (11) 4615-6300

*Flexible Couplings, Bearing
Isolators, and Coupling Guards*

Asia Pacific

China

T40B -5, No. 1765 Chuan Qiao Road
Pudong 201206, Shanghai - China
Tel +86 21-60580600

*Clutches & Brakes, Electromagnetic
Clutches & Brakes, Couplings, Industrial
Caliper & Drum Brakes, Discs, Geared
Cam Limit Switches, Wind Brakes*

India

Gat No.: 448/14, Shinde Vasti, Nighoje
Tal Khed, Pune- 410 501
+91 2135 622100

*Clutches & Brakes, Electromagnetic
Clutches & Brakes, Couplings, Industrial
Caliper & Drum Brakes, Discs, Geared
Cam Limit Switches, Wind Brakes*

The Brands of Altra Motion

Couplings

Ameridrives
www.ameridrives.com

Bibby Turboflex
www.bibbyturboflex.com

Guardian Couplings
www.guardiancouplings.com

Huco
www.huco.com

Lamiflex Couplings
www.lamiflexcouplings.com

Stromag
www.stromag.com

TB Wood's
www.tbwoods.com

Linear Systems

Thomson
www.thomsonlinear.com

Warner Linear
www.warnerlinear.com

Geared Cam Limit Switches

Stromag
www.stromag.com

Engineered Bearing Assemblies

Kilian
www.kilianbearings.com

Electric Clutches & Brakes

Matrix
www.matrix-international.com

Stromag
www.stromag.com

Warner Electric
www.warnerelectric.com

Deltran
www.thomsonlinear.com

Belted Drives

TB Wood's
www.tbwoods.com

Heavy Duty Clutches & Brakes

Twiflex
www.twiflex.com

Stromag
www.stromag.com

Svendborg Brakes
www.svendborg-brakes.com

Wichita Clutch
www.wichitaclutch.com

Gearing & Specialty Components

Bauer Gear Motor
www.bauergears.com

Boston Gear
www.bostongear.com

Delevan
www.delevan.com

Delroyd Worm Gear
www.delroyd.com

Nuttall Gear
www.nuttallgear.com

Engine Braking Systems

Jacobs Vehicle Systems
www.jacobsvehiclesystems.com

Precision Motors & Automation

Kollmorgen
www.kollmorgen.com

Miniature Motors

Portescap
www.portescap.com

Overrunning Clutches

Formsprag Clutch
www.formsprag.com

Marland Clutch
www.marland.com

Stieber
www.stieberclutch.com



www.stromag.com

Hansastraße 120
59425 Unna - Germany
+49 2303 102-0