

Controls
and Sensors
for Stage
and Theatre
Applications



OUR TECHNOLOGY PLAYS AN IN **Stromag Smart Cam®** Stromag Light Cam® with synthetic housing with multi-turn absolute encoder

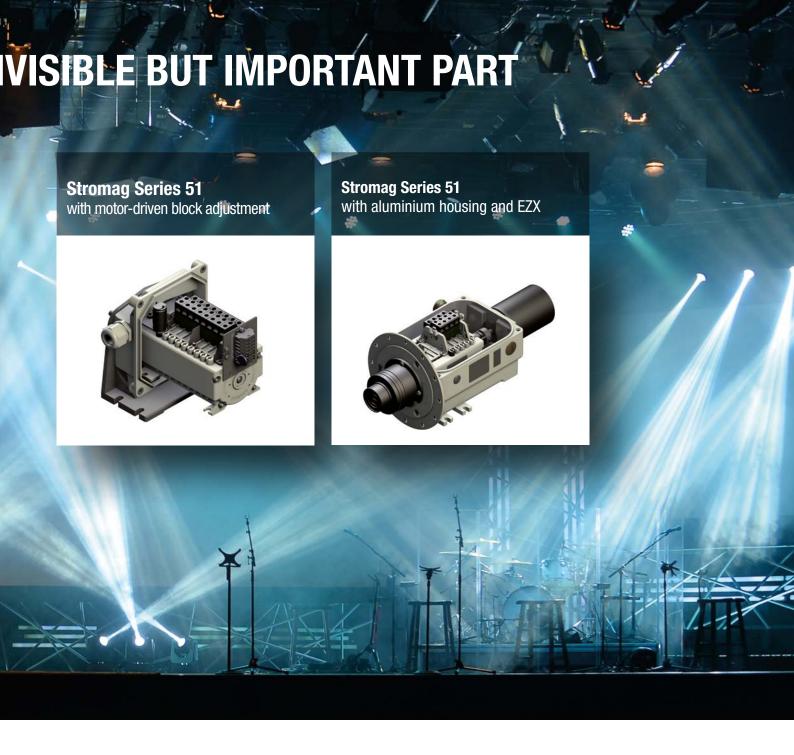
GEARED CAM LIMIT SWITCHES FOR STAGE AND THEATRE TECHNOLOGY

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 sensoring 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.

www.stromag.com P-8317-SG-A4 5/19



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 | +49 2303 102-0

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

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

Great Britain

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

Electromagnetic Clutches & Brakes, Industrial Caliner Brakes

North America

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

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

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

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

www.kilianbearings.com

Electric Clutches & Brakes

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 ww.twiflex.com

Stromag www.stromag.com

Svendborg Brakes

www.svendborg-brakes.com

Wichita Clutch

Gearing & Specialty Components

Bauer Gear Motor

www.bauergears.com

Boston Gear www.bostongear.com

Delevan www.delevan.com

Delroyd Worm Gear

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

Stieber www.stieberclutch.com



www.stromag.com P-8317-SG-A4 5/19