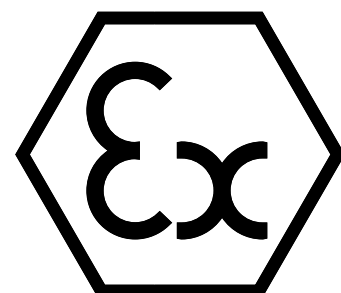


Limit Switch

HER EX II 2D

HER EX II 3D



APPLICATION

KIEPE limit switches of type HER EX are designed for use in materials handling equipment, conveying systems, loading plants and mixing equipment for bulk material in stationary equipment for limiting the path of moving machine parts and for limiting travel paths under harsh environmental conditions. The KIEPE limit switches Type HER EX are suited for use in explosive atmosphere with conductive dust, Group II, category 2, in zone 21 and 22 (Type HER EX II 2D) or categorie 3, only in zone 22 (Type HER EX II 3D).

The Kiepe limit switch type HER EX complies with the ATEX Directive 94/9/EG and meets the safety objectives of the Low Voltage Directive 2006/95/EC. KIEPE limit switch Type HER EX features a robust Aluminum housing and is equipped with 2 cam-actuated changeover contacts with snap-action function and two adjustable trip points.

Note:

The limit switch must only be used in electrical control circuits.

FUNCTION

The limit switch operates, when the roller lever is deflected. The roller lever can be mounted at any angle on the shaft and can be deflected in either direction of rotation up to maximally 75°. The operating angle can be adjusted by an adjustable cam for each switching element.

In addition to the safety shutdown is thereby also a pre-warning-feasible. The roller lever is spring-assisted and turns back automatically after deflection.

Note:

Adjustable angles up to 15° should be set at the factory.

TECHNICAL DATA

Designation		Limit switch Type HER EX ATEX-Version
Type of actuation		Bidirectional, by roller lever
Complies with		DIN EN 60204-1; DIN EN 60947-5-1; EN 620
ATEX		
Complies with ATEX Standard		DIN EN 60079-0; DIN EN 60079-31 Protection by enclosure „t“
Device group / category		II / 2D, 3D; flammable, conductive dust
ATEX-Identification		
for Zone 21, 22	HER EX II 2D	⊕ II 2D Ex t IIIC T85°C Db IP67
for Zone 22	HER EX II 3D	⊕ II 3D Ex t IIIC T85°C Dc IP67
ATEX-Certificate		EPS 12 ATEX 1 479 X
Mechanics		
Enclosure		Cast-Aluminum Mould DD-paint yellow, RAL 1004
Roller lever		brass
Mounting		2 slotted holes for M8-Screws
Installation position		Horizontal, tilt angle up to about 30°
Deflection of roller lever		Maximum +/- 75°
Mechanical reliability		> 10,000 actuations
Gross weight		1.9 kg
Electrical system		
Switching System		2 changeover contacts (SPDT with snap action), cam operated positive-making switches; gold plated
Switching range		5°...15° and 15°...35°, adjustable (factory setting: 10° each)
Cable entry		2 Threaded holes M25x1,5 with 2x screw plugs, 1x cable gland (added)
Utilization category		AC-15: 230V; 1.5A DC-13: 60V; 0.5A DC-13: 24V; 2A
Connection cross section		0.75 mm² to 1.5 mm²
Protective conductor connection		Protection class I: Protective earthing
Rated insulation voltage U _i		250 V
Rated impulse withstand voltage U _{imp}		2.5 kV, overvoltage category II, degree of pollution 3
Conventional thermal current I _{th}		6 A
Contact reliability		30,000 operations with 100% I _e
Ambient conditions		
Permissible ambient temperature		−25 °C ... +60 °C
Protection rating		IP65 and IP67 in accordance with EN 60529

SELECTION CHART

Type	Area of application	Contact configuration SPDT	Order number
HER EX 011 II 2D	Explosive dust atmosphere occurs in normal operation occasionally (zone 21, 22)	2	92.096 173.606
HER EX 011 II 3D	not occurs in normal operation or infrequently ad for a short time (zone 22)	2	92.096 606.606

Spare parts and accessories:

EX-Cable gland; M25 x 1.5; sealing area Ø11 mm to Ø16 mm	113.52.01.20.01
EX-Screw plug; M25 x 1.5	113.52.87.20.01
Roller lever: brass	94.039 708.003

Important advice!

The cable gland and screw plugs are carried out according to EC-Type Examination Certificate.
The use of other cable glands or screw plugs may void the device operation approval!

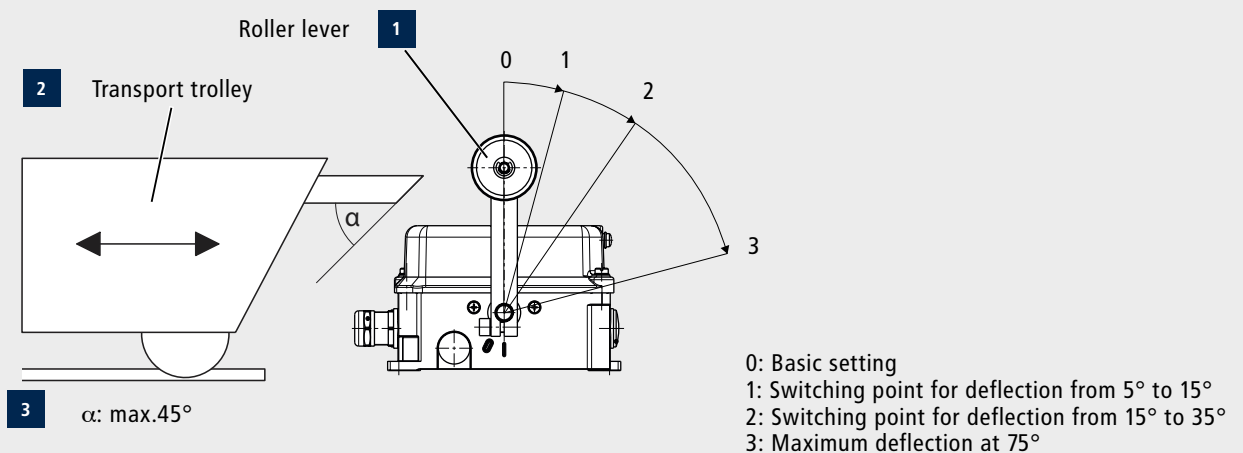
MOUNTING

The limit switch of Type HER EX **1** is fastened with two (2) M8 screws on the substructure. The roller of the actuating lever should be deflected by a 45° ramp **3** of the moving machine part **2**. The maximum switching angle of the roller lever (3) must not exceed whenever the part of the machine reached the limit position. The roller lever is a wear part and therefore exchangeable. It can be affixed 360° on the shaft. Electrical connection is performed with the device open using the screwed cable gland included in the delivery, directly on the screw joints of the switching elements.

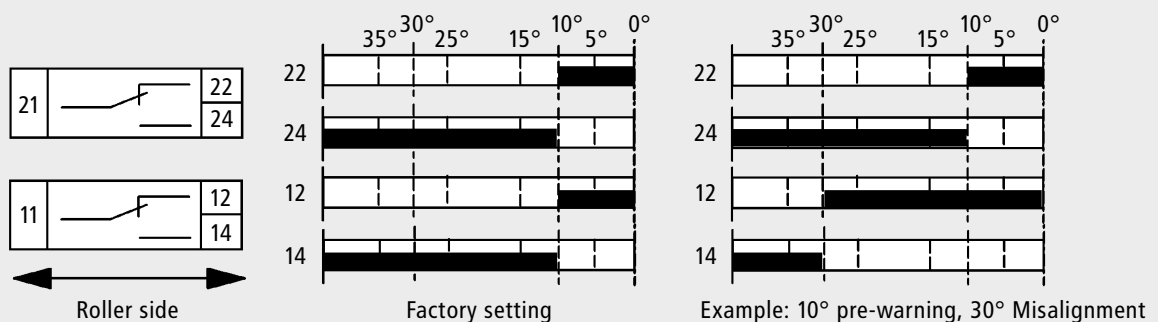
Important advice!

For protection against electrostatic discharge HER EX is provided with conductive components and an external potential equalization connection, to which a minimum of 4 mm² potential equalization cable must be connected directly to the system. All connections must be checked regularly in accordance with the operation instructions.

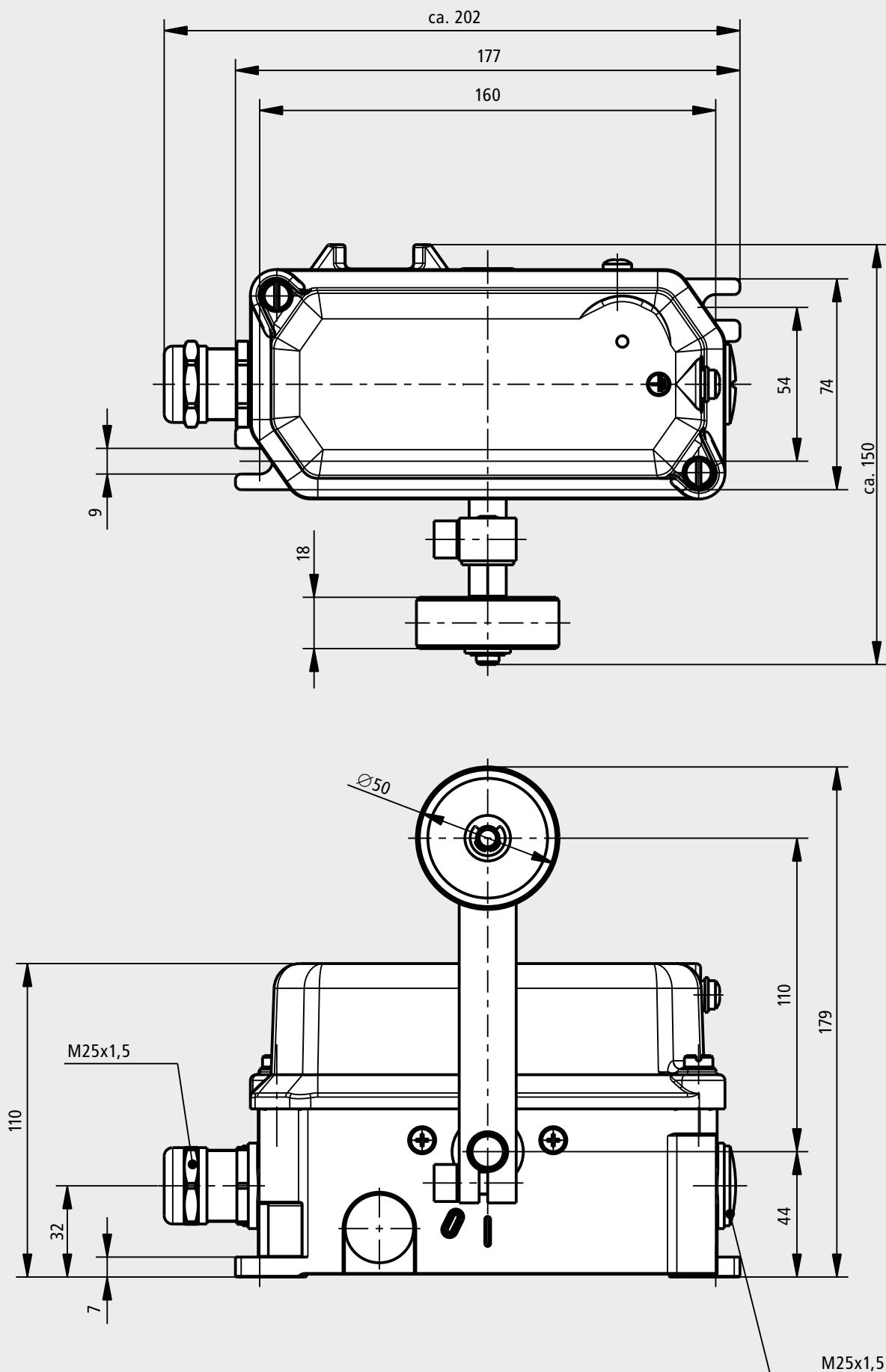
MOUNTING DIAGRAM



CONNECTION DRAWING



DIMENSIONS



Subject to change without notice

Vossloh Kiepe GmbH

40599 Düsseldorf (Germany) · Kiepe-Platz 1
 Telephone +49(0)211 74 97-0 · Fax +49(0)211 74 97-420
 info@kiepe-elektrik.com · www.kiepe-elektrik.com

797/01-04/14