Safety Gear Trigger | SGT02 | Electronic overspeed governor

To trigger electromechanical safety gears, the SIL3-certified Safety Gear Trigger SGT02 can be combined with the SIL3-certified Sensor Ants LES03 to create the **Kübler Safe System LES03/SGT02**.

To the Safe-System LES03/SGT02 >

With the additional extension by the evaluation unit PSU02 to the **Kübler Safe system LES03/SGT02/PSU02**, further elevator and safety functions can be implemented in accordance with EN 81-20/-21/-50.

To the Safe-System LES03/SGT02/PSU02 >

Features and benefits

- **Electronic overspeed governor**
  In combination with the sensor Ants LES03, the SGT02 can replace traditional mechanical overspeed governors.
- **Control-independent**
  The electromechanical safety gear is triggered independently of the control system, making the system ideal for modernization projects.
- **Absolute position detection**
  In addition to the function as electronic speed limiter, the 100% slip-free recorded position data can optionally be transmitted to the control via CANopen Lift. CAN/SSI/RS485 are also possible on request.
- **Overspeed**
  When the Ants LES03 sensor detects an overspeed, the SGT02 triggers the electromechanical safety gear. The system can be combined with different safety gears available on the market.
- **Condition monitoring and reset**
  The SGT02 also takes over the monitoring and resetting of the respective safety gear. In addition to direct evaluation, the status information can also be processed by a control system if required.
- **Establishment of refuge spaces (Shield-Mode)**
  In addition to safety for assembly personnel in accordance with the requirements of EN 81-21, the Shield mode of the SGT02 sets new standards for the safety of installation, service and maintenance personnel.
  Even during scaffold-free assembly, the system independently forms position- and speed-dependent refuge spaces.
- **Self learning system**
  Due to the respective highest and lowest approached position in the elevator shaft, refuge spaces are automatically produced.
- **Easiest validation**
  From plant approval to annual inspection - the reduced complexity simplifies validation processes and guarantees the highest safety standards.
- **Visual and audible status indication**
  All safety-relevant parameters can be checked quickly.
  The simple menu navigation as well as visual and acoustic assistance will inspire not only installers but also approved inspection agencies (ZÜS).

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Safety Gear Trigger | SGT02 | Electronic overspeed governor

Order code SGT02

8.SGT02 . 1 X 1 X . 11 1 X
Type — a b c d — e f g

a *Type of mounting*
1 = top-hat rail mounting

b *Version electromechanical safety gear*
1 = with electrical reset
2 = without electrical reset

c *Interface / supply voltage*
1 = CAN, 24 V

d *Combination* [1)]
1 = Combinable with LES03
2 = Combinable with LES03 and PSU02

e *Interface profile*
11 = CAN, Parts of CANopen Lift implemented

f *Safety gear direction*
1 = in downward and upward direction

g *Electromechanical brake (see table)*
1 = Type 1
2 = Type 2
3 = Type 3

Manufacturer	Product	Order code
Dynatech	eASG - 65 UD	**8.SGT02.111X.1111**
	eASG - 100 UD	
	eASG - 120 UD	
	eASG - 121 UD	
	eASG - 221 UD	
Wittur	ESG-17BS	**8.SGT02.121X.1112**
	ESG-25BS	
	ESG-25U	
Cobianchi	PC13GALEA	**8.SGT02.111X.1113**
	PC24GALEA	
	PC13GAREA	
	PC24GAREA	

Technical data

Mechanical characteristics

Connection	Push-in spring terminals
Switch-off time / System reaction time	< 30 ms (incl. relay switching time)
Housing (material)	plastic
Dimensions L x B x H	160 x 100 x 50,5 mm [6.30 x 3.94 x 1.99“] with connector 66,8 mm [2.63“]

Environmental conditions

Protection acc. to **EN 60529**	IP20
Humidity	< 90 % (non condensing)
Working temperature	-5 °C ... +55 °C [+23 °F ... +131 °F]
Storage temperature	-10 °C ... +70 °C [+14 °F ... +158 °F]
Air pressure (operating altitude)	800 ... 1013 hPA (up to 2000 m above sea level)

Electrical characteristics

Supply voltage	24 VDC ±10 %, low voltage PELV
Power (In the system consisting of SGT02, Ants LES03 and ESG)	< 13 W < 130 W short time during electrical reset of safety gears.
Internal interface (between Ants LES02 and SGT02)	CAN proprietär
External interface (optional) (between SGT02 and control)	CANopen Lift

Standards / Directives / Certificates

Standards	standards for elevators	EN 81-20/21/50
CE compliant in accordance with		
	EMC Directive	2014/30/EU
	RoHS Directive	2011/65/EU
	Elevator Directive	2014/33/EU

1) Dependence on the internal CAN bus termination of the SGT02.

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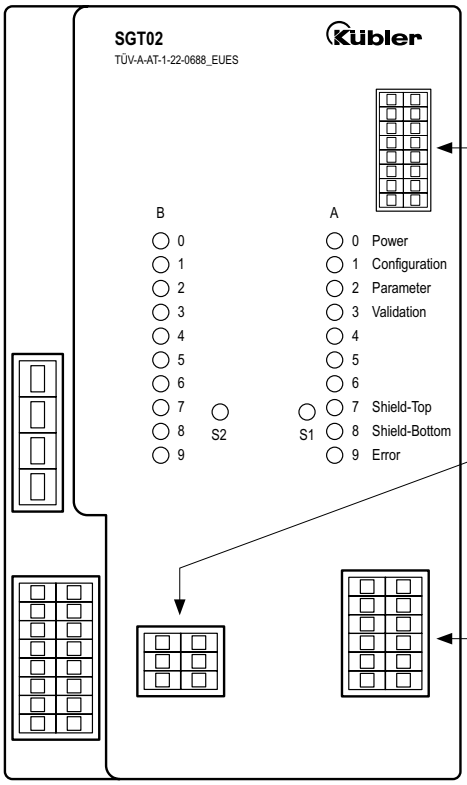
Safety Gear Trigger | SGT02 | Electronic overspeed governor

Terminal assignment SGT02



Connection X5 Safety circuit	
SCC IN	
SCC OUT	
–	
–	

Connection X4 ESG	LEFT	RIGHT
	HC IN	HC IN
	HC OUT	HC OUT
	MC IN	MC IN
	MC OUT	MC OUT
	RC IN	RC IN
	RC OUT	RC OUT
	SC IN	SC IN
	SC OUT	SC OUT

Connection X7 CAN interface	
–	–
–	–
–	–
–	–
–	–
–	–
CAN2L	CAN2H
–	CAN GND

Connection X3 Sensor LES03		
	CAN1L	CAN1H
	CAN GND	–
	GND	24 V OUT

Connection X1 Power supply / inputs		
	V+ IN	GND
	CLK	PE
	SIT	SIB
	RST	E-STOP
	CAN1H	CAN1L
	CAN GND	BUZ

SSC : Safety Circuit Chain
DB : Door Bridging
HC : Holding Coil
MC : Monitoring Coil
RC : Reset Coil
MC : Safety Coil

CANxL : CANx Low
CANxH : CANx High
CAN GND : CAN ground
GND : 0 V supply
+V IN : Supply voltage +24 V DC
PE : Safety ground

CLK : 24 V DC clock
SIT : Protection upwards
SIB : Protection downward
RST : Reset
E-STOP : Emergency stop switch
BUZ : External buzzer

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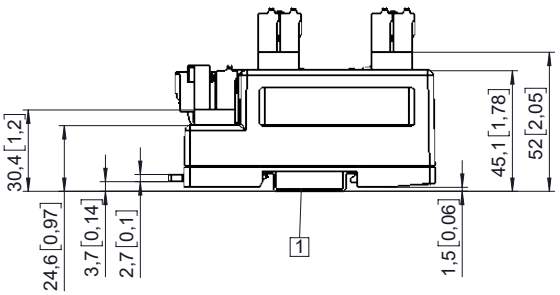
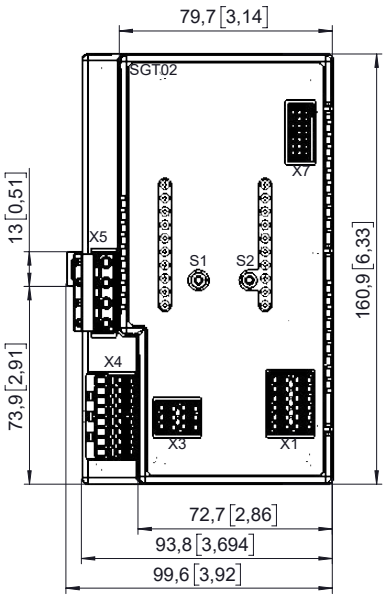
Safety Gear Trigger | **SGT02** | **Electronic overspeed governor**

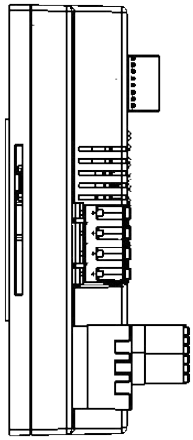
Dimensions

Dimensions in mm [inch]

Safety Gear Trigger SGT02
(Installation on all DIN EN top hat rails)







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