

# TORQSET® SAFETY COUPLINGS ACCESSORIES

SAFETY COUPLINGS  
ST

# ST

## SAFETY ELEMENT



### PROPERTIES

#### MATERIAL

Hardened steel (nitrocarburized surface)

#### DESIGN

Two part assembly for installation into prefabricated coupling components.

Part 1: detent receptacle

Part 2: self-contained, spring loaded plunger module.

The spring force setting is adjustable in the field, with the settings clearly marked on an adjustment scale.

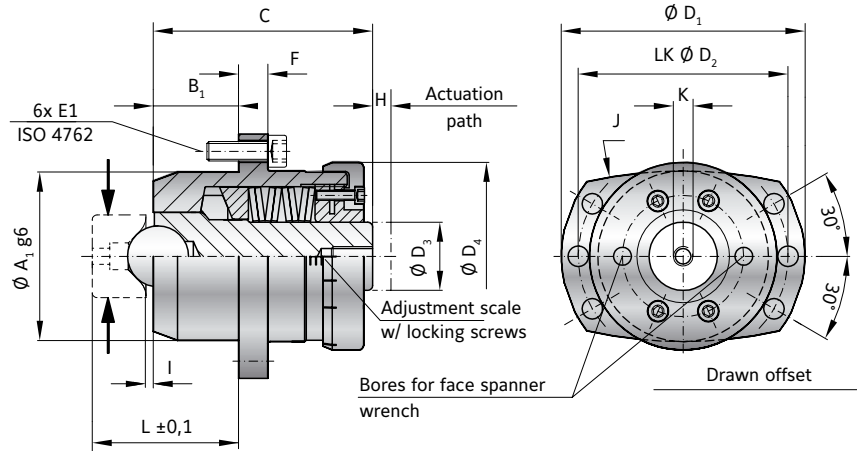
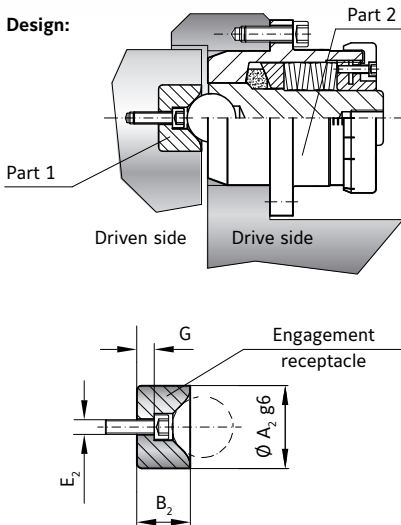
#### FIT TOLERANCE

For insertion of the safety elements H7 precision holes should be used for all centered components.

#### RE-ENGAGEMENT

When properly located over the detent receptacle the safety element can be re-engaged through the application of pressure to the back side of the plunger core.

Design:



## MODEL ST | SIZE 10 - 70

SIZE		10	15	30	70
Tangential force (KN) Adjustment range available from - to (ranges)	1	0.8-2.2	1-4	5-10	8-20
	2	-	2-8	10-20	15-40
	3	2.0-3.3	6-20	20-35	30-70
Centering diameter of safety element g6 (mm)	A <sub>1</sub>	28	40	70	90
Centering diameter engagement receptacle g6 (mm)	A <sub>2</sub>	18	24	34	44
Centering length of safety element (mm)	B <sub>1</sub>	15	20	35	45
Centering length engagement receptacle (mm)	B <sub>2</sub>	13.5	14	22	30
Overall length (mm)	C	56	70	103	135
Outside diameter (mm)	D <sub>1</sub>	45	59	100	129
Bolt circle diameter (mm)	D <sub>2</sub>	37.5	50	86	110
Diameter plunger (mm)	D <sub>3</sub>	8	16	28	35
Diameter adjustment nut (mm)	D <sub>4</sub>	32	44	75	92
Screw / Tightening torque ISO 4762 (mm)	E <sub>1</sub>	6 x M4 x 12 / 4.5 Nm	6 x M5 x 16 / 10 Nm	6 x M8 x 25 / 40 Nm	6 x M12 x 35 / 120 Nm
Screw / Tightening torque ISO 4762 (mm)	E <sub>2</sub>	M4 x 20 4.5 Nm	M4 x 14 4.5 Nm	M6 x 20 15.5 Nm	M8 x 25 38 Nm
Flange thickness (mm)	F	5	7	12	16
Distance (mm)	G	6.5	5	8	10
Actuation path (mm)	H	3	4	7.5	10
Distance (mm)	I	1.5	2	3	4
Radius (mm)	J	100	110	200	250
Inner thread (mm)	K	M5 x 10	M8 x 15	M10 x 25	M16 x 30
Distance ± 0,1 (mm)	L	30	36	60	79
Weight (kg)		0.26	0.65	2.7	6

axial spring force = tangential force/1.4

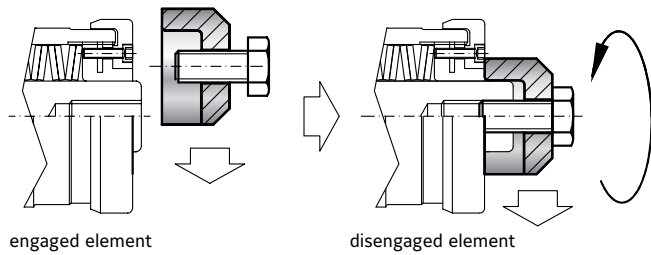
ORDERING EXAMPLE	ST	30	2	12	XX
Model	●				
Size		●			
Adjustment range 1/2/3			●		
Tangential force (KN)				●	
For custom features place an XX at the end of the part number and describe the special requirements (e.g. ST / 30 / 2 / 12 / XX)					

# ACCESSORIES ST

## TORQSET® SAFETY COUPLINGS

### ENGAGEMENT AND DISENGAGEMENT

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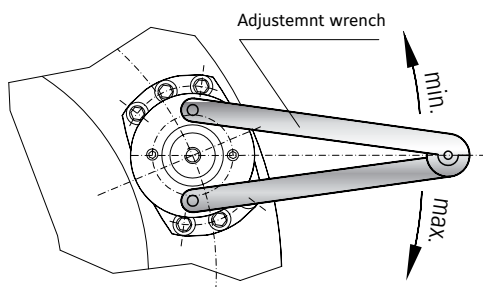


### ORDER NUMBER

SIZE	ENGAGEMENT / DISENGAGEMENT TOOL
10	Order number AV / 0010
15	Order number AV / 0015
30	Order number AV / 0030
70	Order number AV / 0070

### ADJUSTMENT WRENCH

ST

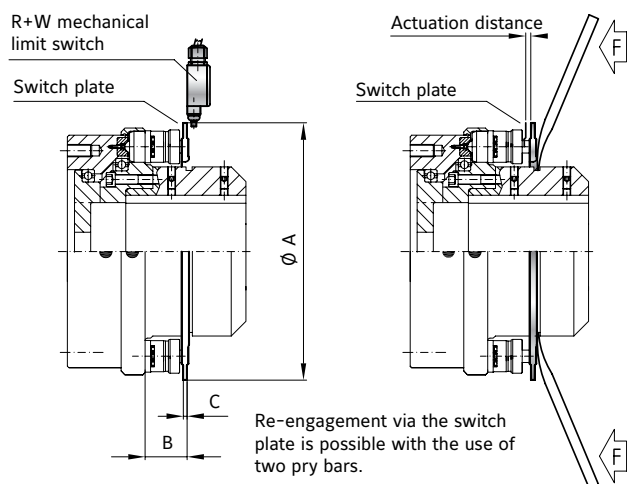


### ORDER NUMBER

SIZE	ADJUSTMENT WRENCH
10	Order number SLS / 0010
15	Order number SLS / 0015
30	Order number SLS / 0030
70	Order number SLS / 0070

### SWITCH PLATE

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Switch plates are available on request for all sizes and series.  
Contact R+W for more information.

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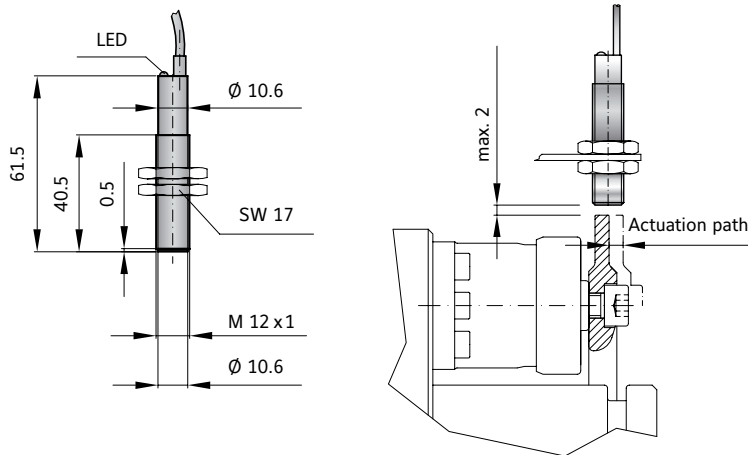
# ACCESSORIES ST

## TORQSET® SAFETY COUPLINGS

It is important the switches be 100% tested for proper functioning after mounting with safety coupling.

### PROXIMITY SWITCH (E-STOP FUNCTION)

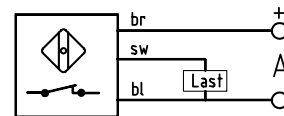
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ORDER NUMBER 650.2703.001

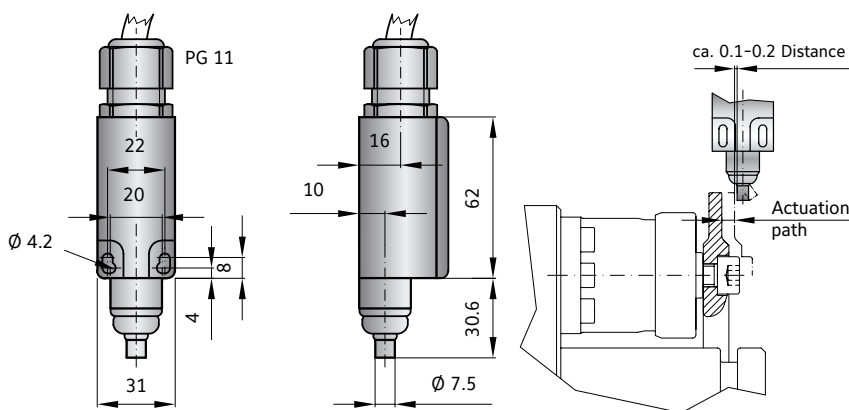
TECHNICAL DATA	ST
Voltage	10 to 30 V DC
Max. output current	200 mA
Max. switch frequency	800 KHz
Temperature range	-25° to +70° C
Protective system	IP 67
Switch type	normally open
Max. detection gap	max. 2 mm

#### SWITCH DIAGRAM ST



### MECHANICAL LIMIT SWITCH (E-STOP FUNCTION)

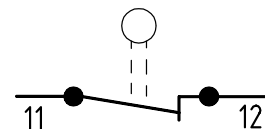
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ORDER NUMBER 618.6740.644

TECHNICAL DATA	ST
Max. voltage	250 V AC
Max. constant current	2.5h A
Protective system	IP 65
Contact system	Opener (forced separating)
Temperature range	-30° to +80° C
Actuation	Plunger (metal)

#### SWITCH DIAGRAM ST



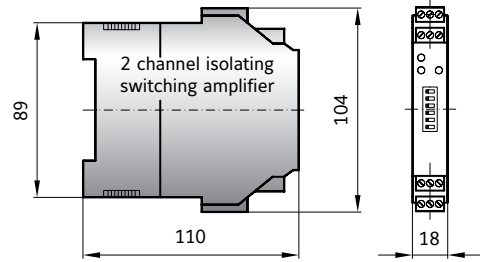
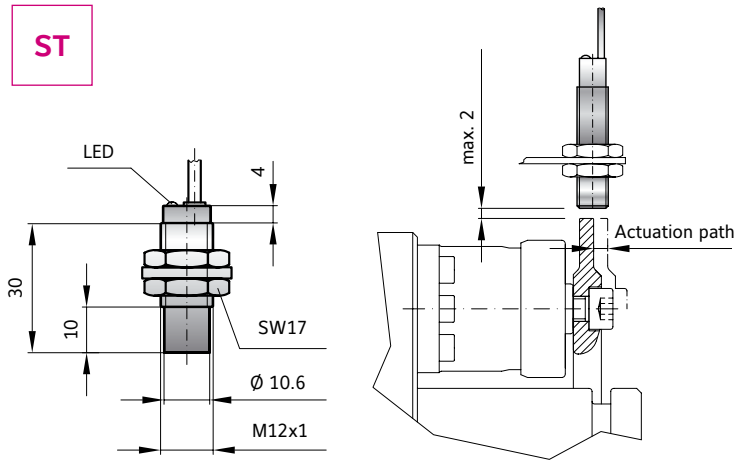
The switch plunger (pictured above and right) should be located as close to the actuation ring / limit switch plate as possible (approximately 0.1-0.2mm).

It is important the switches be 100% tested for proper functioning after mounting with safety coupling.

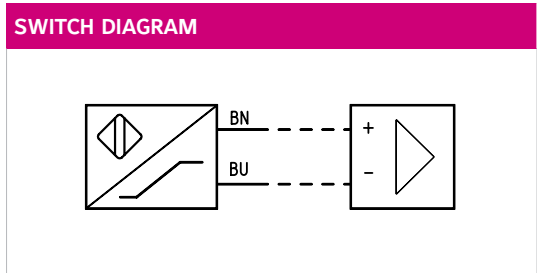
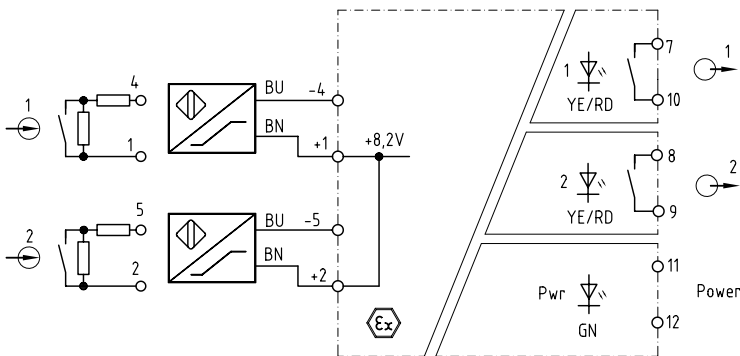
ATEX LIMIT SWITCH (E-STOP FUNCTION)

ORDER NUMBER EEX. 1624.004

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Technical data on request.