

# Belt Misalignment Monitoring of Bucket Elevators

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for buckets made of aluminium and stainless steel

Leaflet No.      **Kiepe 441**



## APPLICATION

Kiepe Sensors of types SBW 501/2 und SBW 601/2 are used in bucket elevator installations for monitoring the true tracking of the belt. Designed for buckets made of stainless steel and aluminium they are especially suitable for the food industry (e.g. sugar).

Despite its small size of only 80 mm diameter the sensor provides an operating distance of up to 70 mm adjustable by means of a small potentiometer.

## INSTALLATION

One pair of sensors is located near the headpulley on the forward side and the other near the tailpulley on the return side. They are fixed on a plastic mounting plate (dimensions: 210 x 210 mm), which covers a hole in the elevator wall of at least 160 mm,

defining the metal free zone. The mounting plates should be placed in such a way that the active area of the sensor is fully covered by the bucket's side.

## SETTING

The switches are pre-set by the factory at 70 mm. The presence of a bucket is indicated by an integral LED, showing interruption

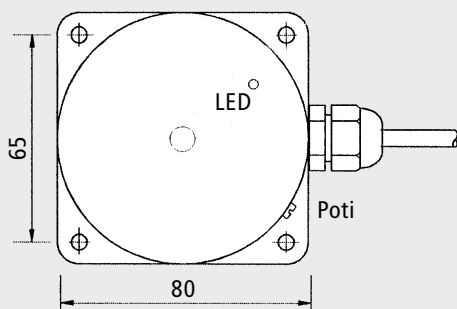
of the oscillating field. The trip point is adjustable by means of a potentiometer.

## TECHNICAL DATA

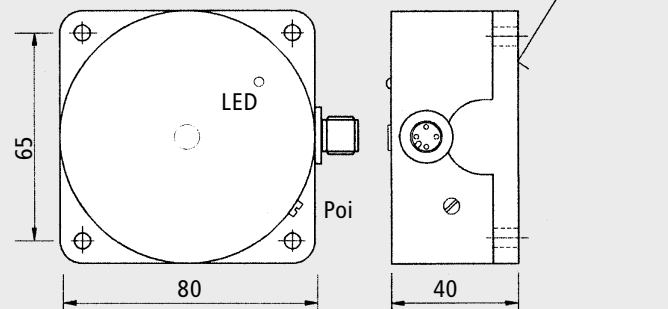
Switching distance $s_n$	70 mm, non flush mounting, the active area must be completely covered	
Hysteresis	10% $s_n$ max.	
Ambient temperature	-20 °C ... +70 °C	
Supply voltage	DC 10 V ... 30 V	
Output circuit	SBW 501/601: PNP, N.O. SBW 502/602: PNP, N.C.	
Load current	200 mA max.	
Metalindication	LED	
Protection	IP 67 according to EN 60529	
Housing	Crastin	
Connection	SBW 501/502: 2 m cable (PVC), 3 x 0,5 mm <sup>2</sup> SBW 601/602: M 12-connector	
Ordering codes	SBW 501: 94.046 510.501	SBW 502: 94.046 510.502
	SBW 601: 94.046 510.601	SBW 602: 94.046 510.602
	Mounting plate: 96.048 808.001	

## DIMENSIONS

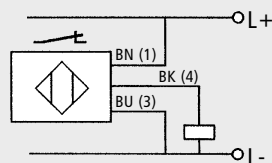
SBW 501/502



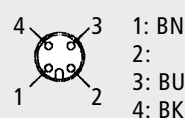
SBW 601/602



Connecting diagram



PIN-Connection



Subject to change without notice.