

Cable-type displacement converter SWH series

for use with absolute and incremental encoders

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- Very robust construction for mechanical engineering and industrial plant application
- For converting linear displacements of up to 3 m into a rotary movement
- For mounting onto an absolute or incremental encoder
- Easy to install and to use
- Protection class IP 65 (IP 54)

Functional description

The linear movement of a flexible steel cable, which can have a length of up to 3 m, is converted into an rotary movement with the aid of a measuring drum. The measuring drum is connected to the shaft of an encoder. In this way a change in displacement of the measuring cable causes the shaft of the encoder to rotate by a directly proportional amount which can be recorded.

The restoring force of the spring drive holds the measuring cable tight at all times and prevents any sagging which would otherwise induce an error. The cable is wound up precisely and reproducibly wrap for wrap in the helical groove of the drum.

The nozzle, through which the cable enters the drum, is protected with a brush and a bellow to prevent water or dust entering the drum.

Form of delivery

Generally encoders and converters are supplied as one unit. Upon request both items are also available as separate units. To load the encoder model series KR, CR and TM are suitable with digital interface, DAF and TM with analog interface and pulse of the series, GIO and GIM TB. Preferably used are those with the flange-58th. Lots of other flange are adaptable.

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Mechanische Daten

- Measuring ranges: 1, 2, 3 m
- Circumference of cable drum: 200 mm
- Mechanical tolerance: $\pm 0.05\%$ (related to actual measuring value)
- Speed of cable ($V_{max.}$): ≤ 8.0 m/s (at 20 °C temperature)
- Acceleration of cable ($a_{max.}$): ≤ 40 m/s² (at 20 °C temperature)
- Force required to draw start / end: max. max. 15 N / max. 30 N
- Cable material (steel 1.4401): flexible steel wires (7x19 = 133 wires)
- Cable diameter: 1.3 mm
- Live span: ≥ 1 mio. strokes
- Housing material: anodized aluminium
- Protection class: IP65*
- Temperature range: -20 °C to +70 °C
-30 °C (optional)

* not valid for cable entry

Order number

SWH	2	-	B	-	FK	-	01	*
							01	Basic version for model No. 58
							03	Version for flange 50
							13	Version for clamping fange
					FK			Grease chamber
								Accessories (optional):
			B					B = bellow at cable entry
			U					U = deflection roller
								Measuring ranges:
	1							1 m
	2							2 m
	3							3 m
								Model:
SWH								Cable-type displacement converter

* Variations from the basic version are indicated with a succeeding, additional number and are documented in our works.

Accessories

- Deflection roller for cable (SWF-U + SWH-UFLA)
- Cable extension SWF-VX (x = length of extension in meter)
- Bellow for cable entry (SWF-BALG + SWH-BAFLA)
- External brush chamber for very dusty environment (SWF-BÜVO + SWH-BÜVO-RING)

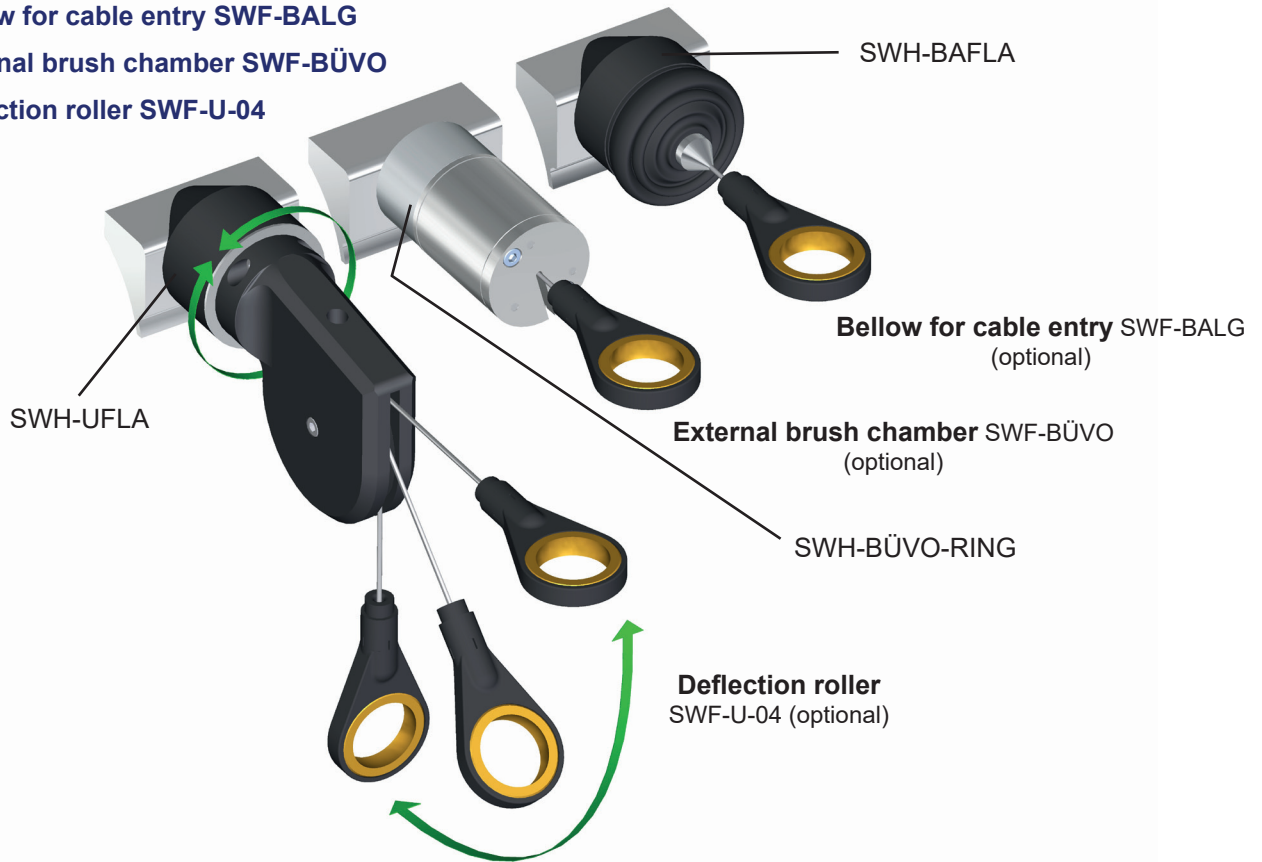
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Accessories, Installation drawing

Bellow for cable entry SWF-BALG

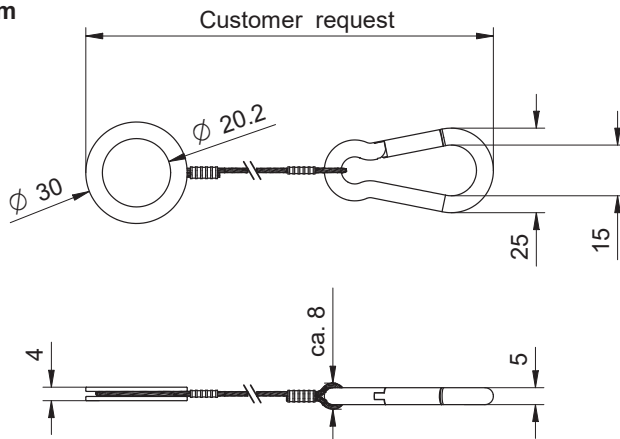
External brush chamber SWF-BÜVO

Deflection roller SWF-U-04

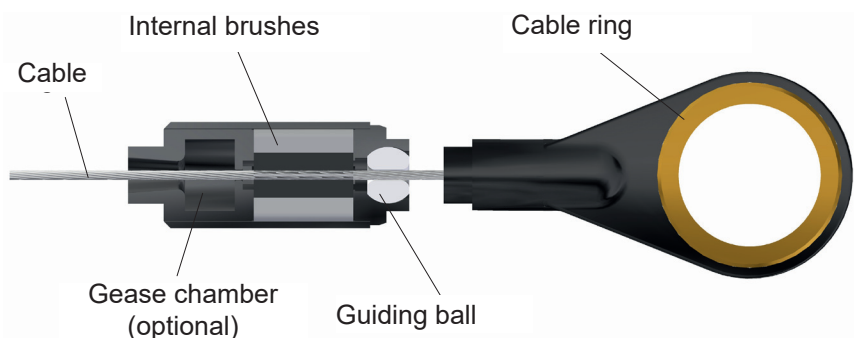


Cable extension SWF-VX SWF-VX

Dimensions in mm



Cable entry

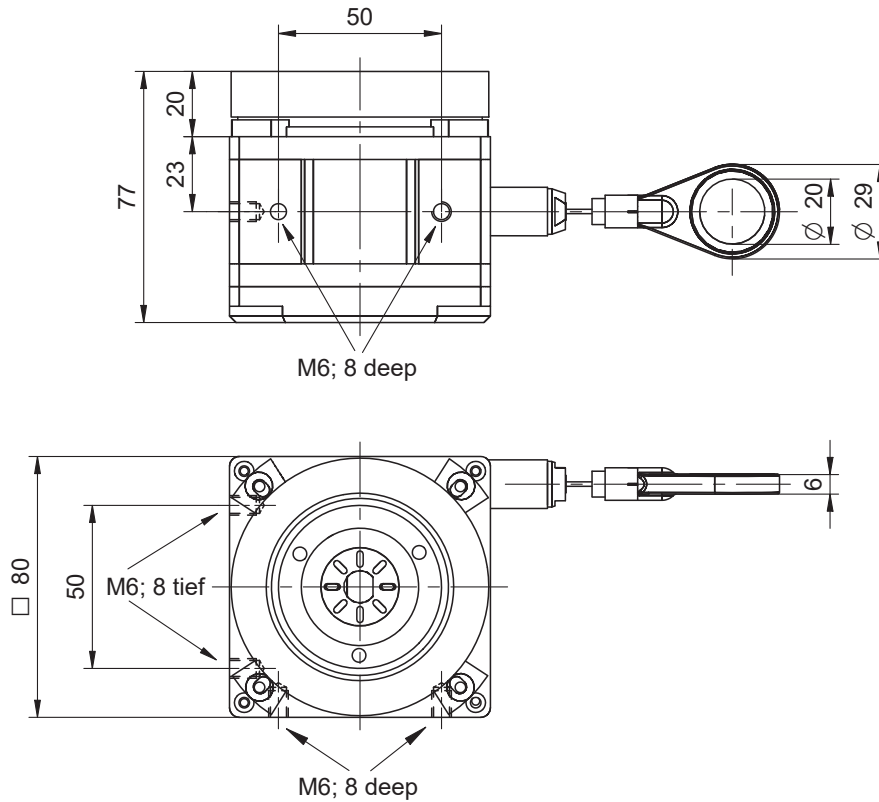


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Installation drawing

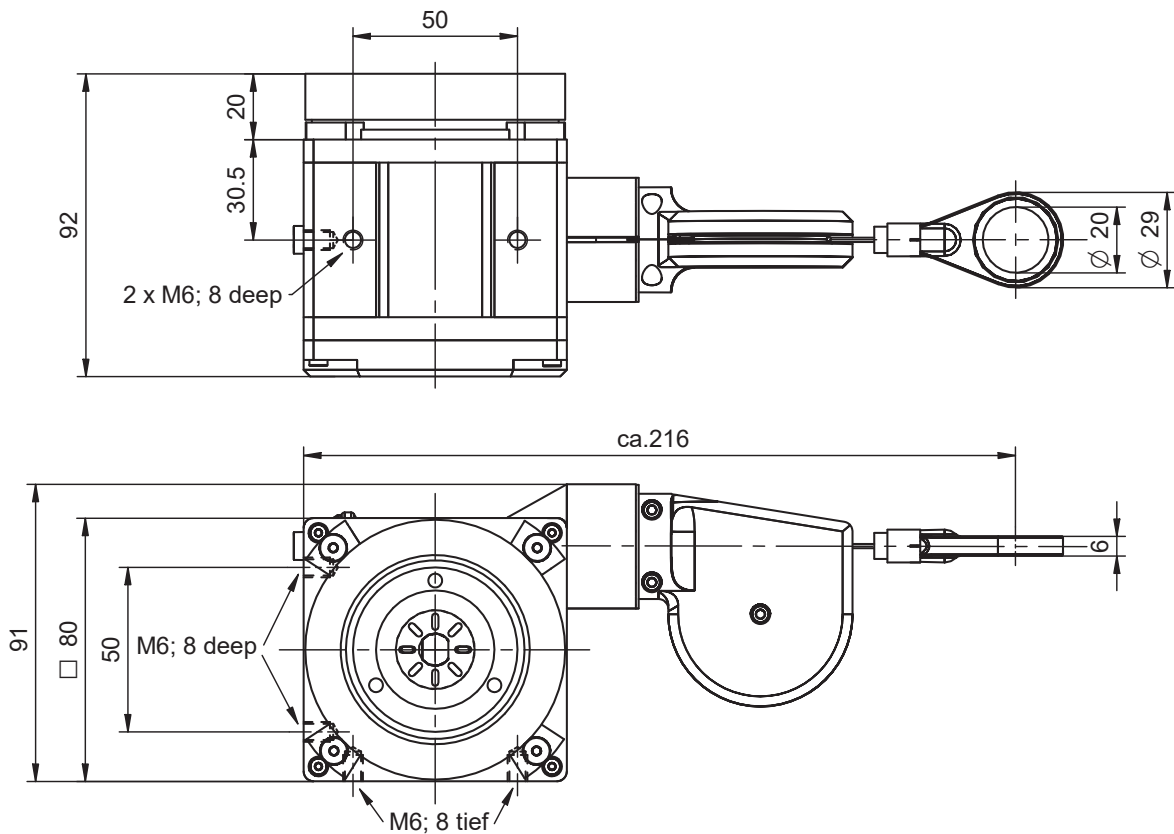
SWH 1 m standard

Dimensions in mm



SWH 2 m with deflection roller

Dimensions in mm

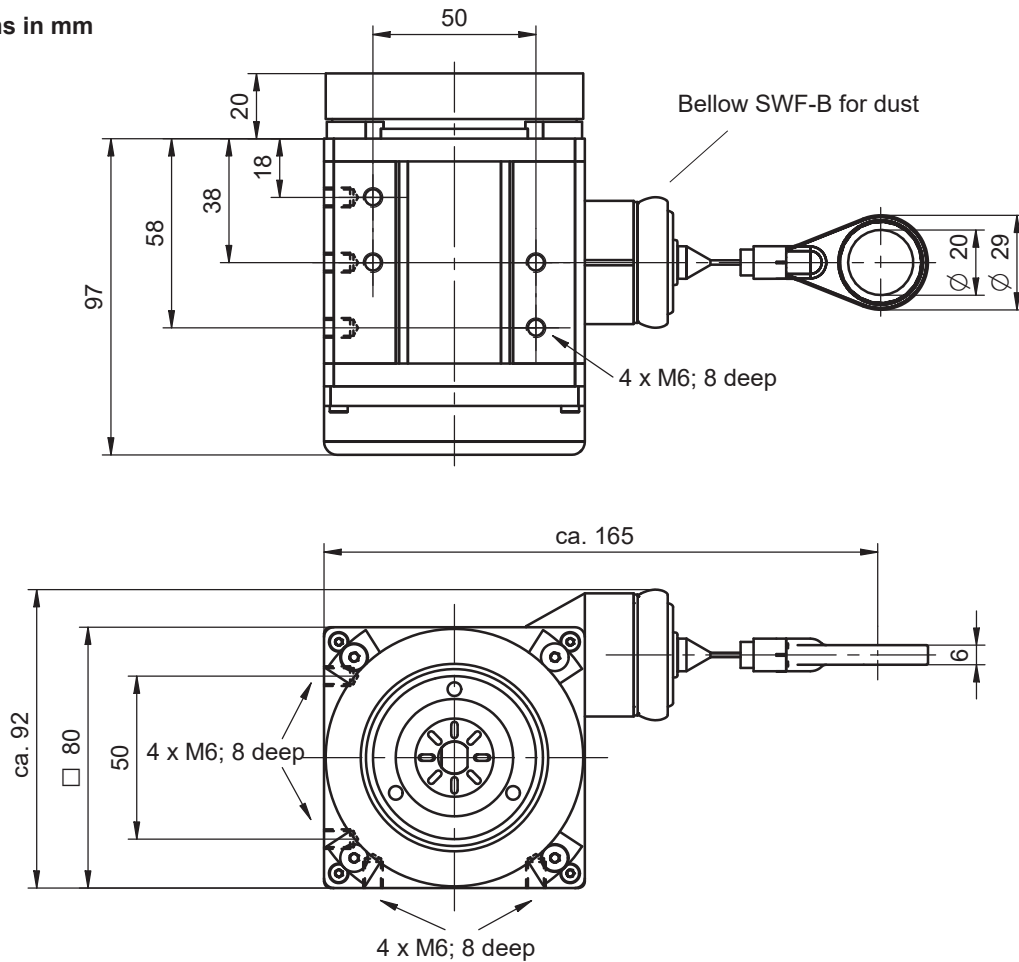


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Installation drawing

SWH 3 m with bellow

Dimensions in mm



SWH 1 m with external brush

Dimensions in mm

