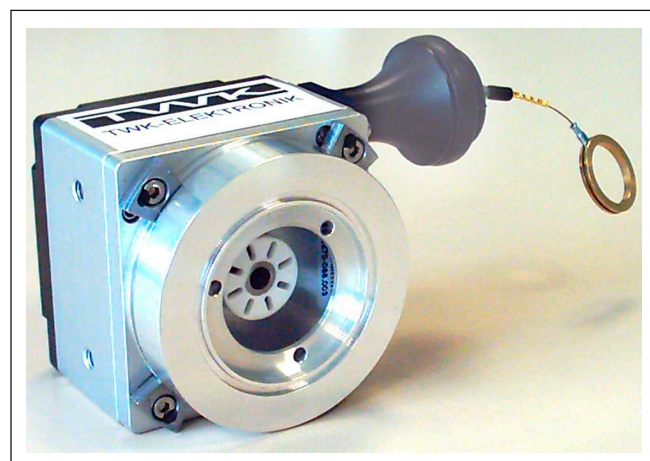


- **Very robust construction for mechanical engineering and industrial plant application**
- **For converting linear displacements of up to 5 m into a rotary movement**
- **For mounting onto an absolute or incremental encoder**
- **Easy to install and to use**
- **Protection grade IP 65 (IP 54)**



### Functional description

The linear movement of a flexible steel cable, which can have a length of up to 5 m, is converted into a 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. Two roller units at the cable entry allow for up to 20° deflection of the cable.

### Technical data

- Measuring ranges: 1, 2, 3, 5 m
- Drum circumference: up to 3 m = 200 mm nom.<sup>1)</sup>  
5 m = 333 mm nom.<sup>1)</sup>
- Permissible cable speed: ≤ 4 m/s
- Force required to draw out the cable (start / end): 15 N max. / 30 N max.
- Cable material and diameters: highly flexible, stranded wire, 0.55 mm  
(Stainless steel 1.4401)
- Life expectancy of cable and spring: ≥ 5 x 10<sup>6</sup> cable strokes
- Housing material: anodized aluminium
- Spring housing: plastic
- Working and storage temperature range: -20° C to +70° C  
-30° C (optional)
- Protection grades: Housing IP 65  
Cable entry IP 54
- Mass: 1.0 - 1.0 - 1.5 - 2.0 kg

<sup>1)</sup> The actual value is shown on the item when supplied.

### Encoders in connection with cable-type converters

Generally encoders and converters are supplied as one unit. Upon request both items are also available as separate units.

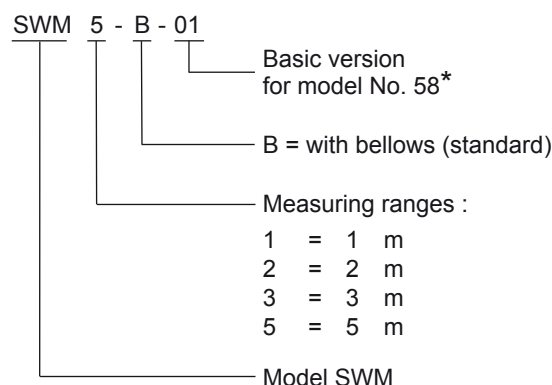
The following TWK-series of digital, incremental and analogue encoders with 58 mm dia synchro flanges can be mounted onto SWM-converters: CR, KR, DAF, TB, TM, GIO and GIM. Technical descriptions of such encoders are available as individual data sheets.

The following accessories can be supplied:

- Prolongator SWF-VX for cable.
- Adapter rings for encoders with the following mounting flanges: 50, 65, 66, 90 and 105.

For use under aggressive ambient conditions, e.g. in maritime climate, the converters can be supplied with a protective anodised hard coating.

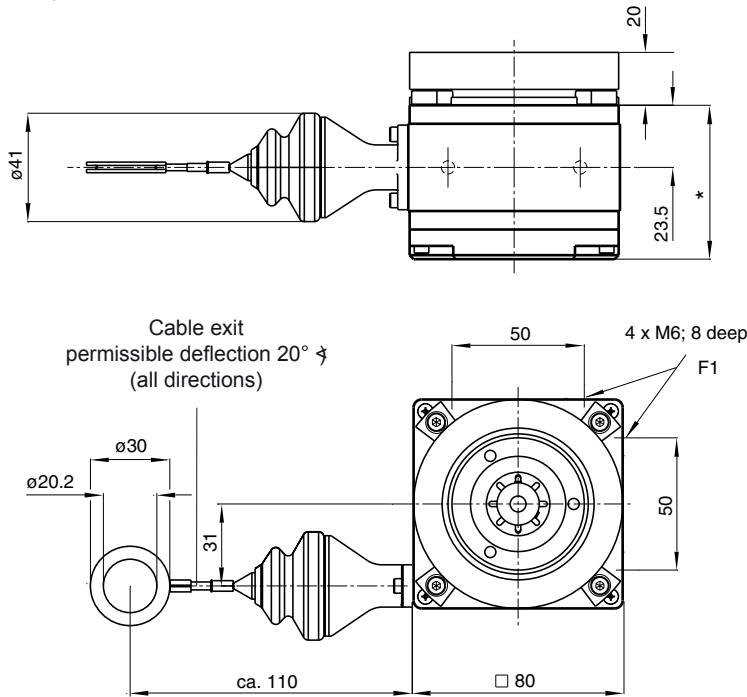
### Order code format



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

Dimensions in mm

Cable-type displacement converter **SWM**  
measuring ranges 1 m, 2 m and 3 m



- \* **SWM 1:** 58.2 mm
- SWM 2:** 58.2 mm
- SWM 3:** 79.9 mm

**Mounting position**

The F1 threaded holes at two faces permit to adjust the position of the cable exit to suit the requirements in situ.

**Note:** The cable exit should be downwards or sideways. The cable must be extracted rectilinearly  $\pm 20^\circ$  with reference to the housing.

Cable-type displacement converter **SWM**  
measuring range 5 m

