

DRAW WIRE SERIES EM8

EXTENSIBLE CABLE MEASUREMENT SYSTEM

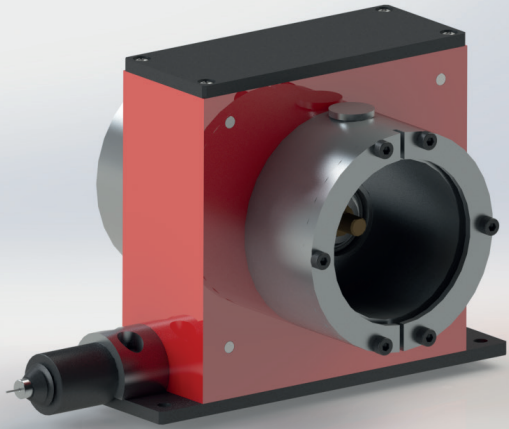


Image with flexible accessory



- Measuring linear distances up to 8 meters
- Any mounting position possible
- Protection class IP51 according to DIN EN 60529
- The drum shaft can drive any kind of rotary encoder (encoder, potentiometer, ...)
- Stainless steel extensible cable $\varnothing 0,61$ AISI316



Linear measurement system



Extensible cable

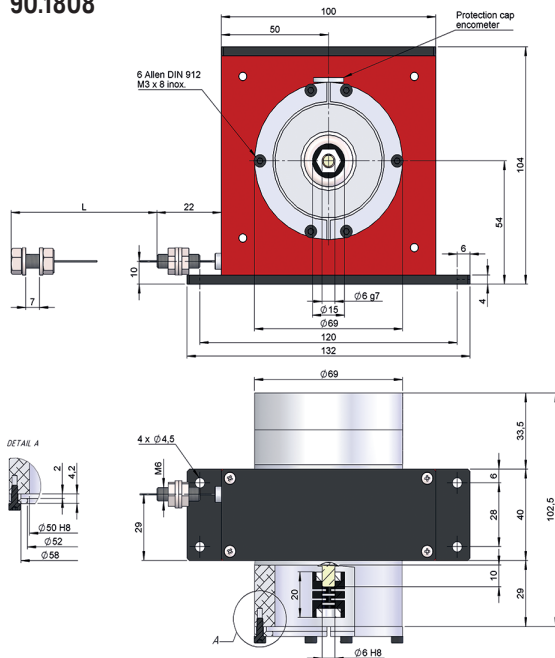


45°



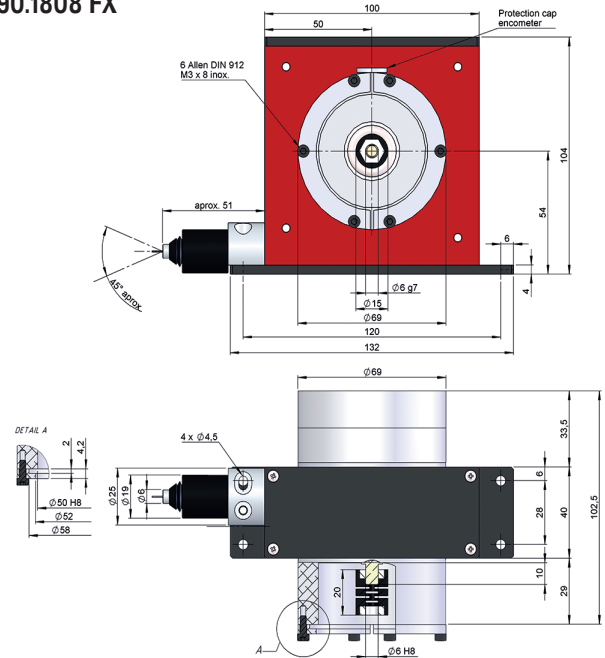
IP 51

90.1808



Drawing 90.1808 with standard bell synchro and coupling type 1

90.1808 FX



Drawing 90.1808 FX with flexible accessory, standard bell synchro and coupling type 1

REFERENCE

Reference example: 90.1808-SY1

Serie	Fixing the sensor system	Coupling	Special customer
90.1808 / 90.1808 FX -	<input type="checkbox"/> <input type="checkbox"/>	<input type="checkbox"/>	<input type="checkbox"/> <input type="checkbox"/>
90.1808. Standard	SY. Standard bell synchro	1. PFP 1520 06/06	AW. Inverted caps
90.1808 FX. Flexible accessory	CL. Clamping bell	2. PFP 1520 06/635 3. PFP 2224 06/10	

Request the EM8 already coupled to an electronic output device that could be an Incremental Optical Encoder, Multiturn Absolute Optical Encoder, Potentiometer or Multiturn Absolute Magnetic Encoder.

DRAW WIRE SERIES EM8

EXTENDIBLE CABLE MEASUREMENT SYSTEM

TECHNICAL SPECIFICATIONS

MODEL	EM8
Reference	90.1808 / 90.1808 FX
Travel	250 mm ±0,06 / per turn
Cable*	Ø 0,61 stainless steel AISI316 (structure 19 x 7 + 0)
Measurement range, up to (mm)	8000
Maximum cable extension (mm)	8010
Minimum cable static tension	6 N - Standard
Maximum cable static tension	13 N - Standard
Maximum extension acceleration	30 m/s ² - Standard
Maximum recovery acceleration	12 m/s ² - Standard
Maximum speed	0,75 m/s

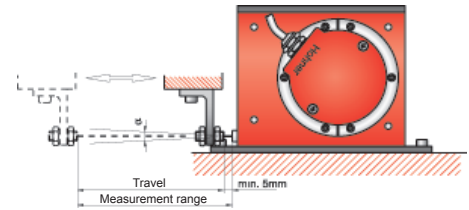
Protection against dust and splashes according to DIN EN 60529 IP51

(*) Other types of cables are possible on special order

INSTALLATION

EM8 units are secured to a flat machine surface by means of three or four M4 screws.

The cable must be correctly aligned and under no circumstances must it exceed the measurement range.



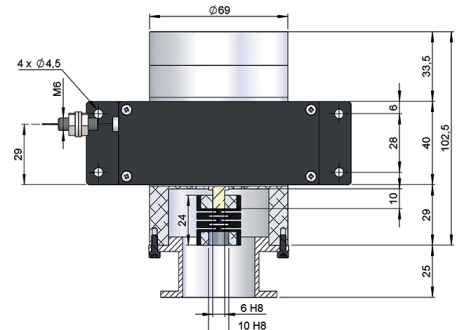
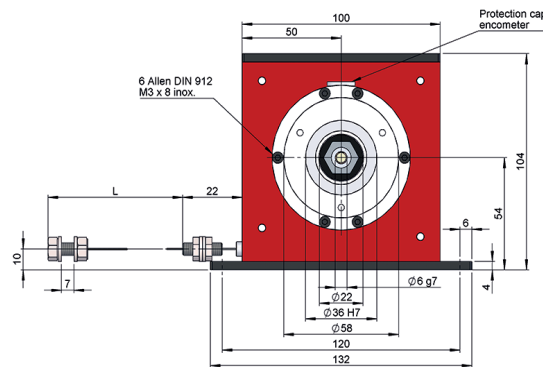
EM 90.1808: $\alpha < 2^\circ$
EM 90.1808 FX: $\alpha < 45^\circ$

Special customer AW for inverted caps.

FIXING SENSOR SYSTEM DIMENSIONS

Fixing sensor system
type CL
Clamping bell

Coupling type 3
PFP 2224 06/10



OUTPUT DEVICES

We can supply the EM8 already coupled to an electronic output device that could be an Incremental Optical Encoder, Multiturn Absolute Optical Encoder, Potentiometer or Multiturn Absolute Magnetic Encoder:

If it is required to obtain a determined resolution "r" (mm per pulse) in the case of using an absolute or incremental encoder, the number of encoder pulses (n) will be:

$$n = \frac{D}{r} \quad (D \text{ is EM8 travel in mm})$$

Using a potentiometer, an output "r" ratio (in Ω per mm) is obtained in accordance with:

$$r = \frac{R}{D \times n} \quad (R \text{ is the rated resistance and } n \text{ is the maximum number of turns})$$

As standard, we have potentiometers of R=10K Ω and n=10 turns available in stock. It must be taken into consideration that the mechanical travel of the potentiometer may limit the EM8 measurement range.