

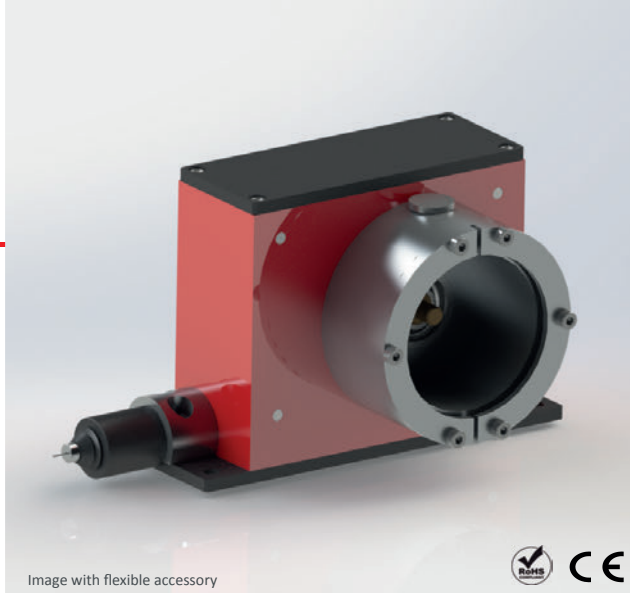


Image with flexible accessory



ENCO-METER EM4

EXTENDIBLE CABLE MEASUREMENT SYSTEM

- Measuring linear distances up to 4 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 extendible cable $\varnothing 0,61$ AISI316



Linear measurement system



Extendible cable

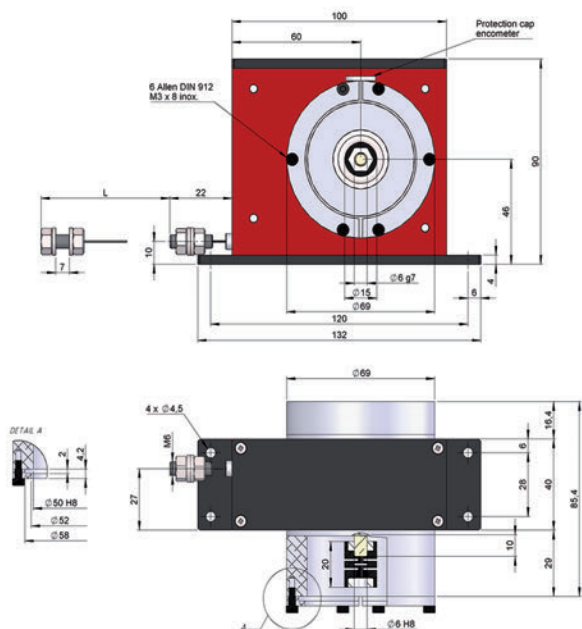


45°



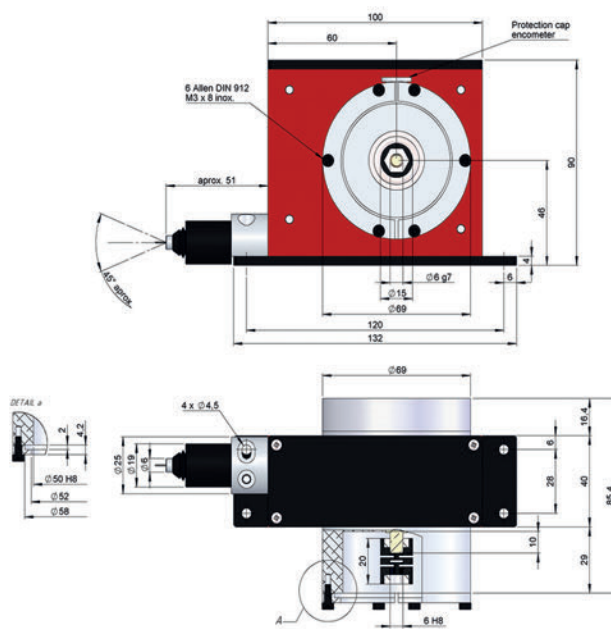
IP 51

90.1404



Drawing 90.1404 with standard bell synchro and coupling type 1

90.1404 FX



Drawing 90.1404 FX with flexible accessory, standard bell synchro and coupling type 1

REFERENCE

Reference example: 90.1404-SY1

Serie	Fixing system to sensor	Coupling	Special customer
90.1404 / 90.1404 FX -	☐ ☐	☐	☐ ☐
90.1404. Standard	SY. Standard bell synchro	1. PFP 1520 06/06	AW. Inverted caps
90.1404 FX. Flexible accessory	CL. Clamping bell	2. PFP 1520 06/635	AV. Double restoring force
		3. PFP 2224 06/10	

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



ENCO-METER EM4

EXTENDIBLE CABLE MEASUREMENT SYSTEM

TECHNICAL SPECIFICATIONS

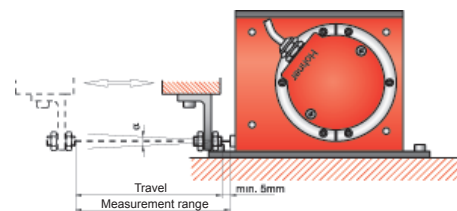
MODEL	EM4
Reference	90.1404 / 90.1404 FX
Travel	200 mm ±0,06 / per turn
Cable*	Ø 0,61 stainless steel AISI316 (structure 19 x 7 + 0)
Measurement range, up to (mm)	4000
Maximum cable extension (mm)	4010
Minimum cable static tension	3 N - Standard 6 N - Special customer AV
Maximum cable static tension	8,9 N - Standard 18 N - Special customer AV
Maximum extension acceleration	35 m/s ² - Standard 30 m/s ² - Special customer AV
Maximum recovery acceleration	10 m/s ² - Standard 20 m/s ² - Special customer AV
Maximum speed	1 m/s
Protection against dust and splashes according to DIN EN 60529	IP51

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

INSTALLATION

ENCO-METER 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.



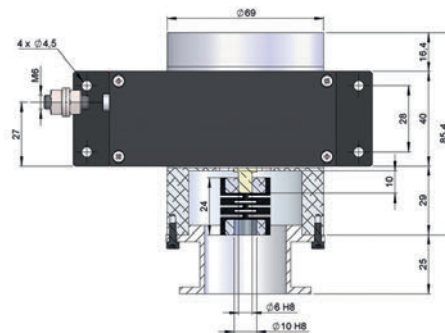
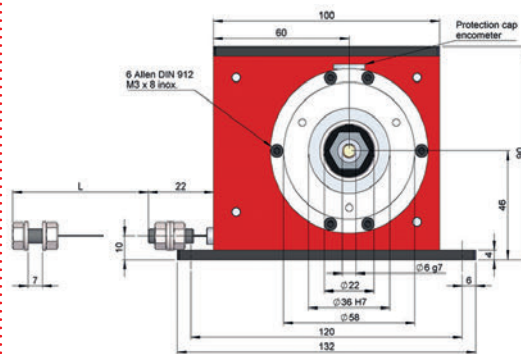
EM 90.1404: $\alpha < 2^\circ$
EM 90.1404 FX: $\alpha < 45^\circ$

Special customer AW for inverted caps.

FIXING SENSOR SYSTEM DIMENSIONS

Fixing system to sensor
type CL
Clamping bell

Coupling type 3
PFP 2224 06/10



OUTPUT DEVICES

We can supply the ENCO-METER 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:

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

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 ENCO-METER measurement range.