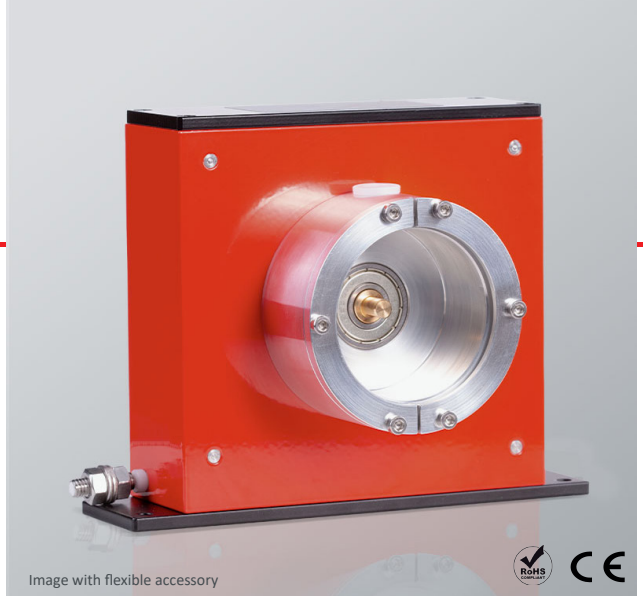


Image with flexible accessory

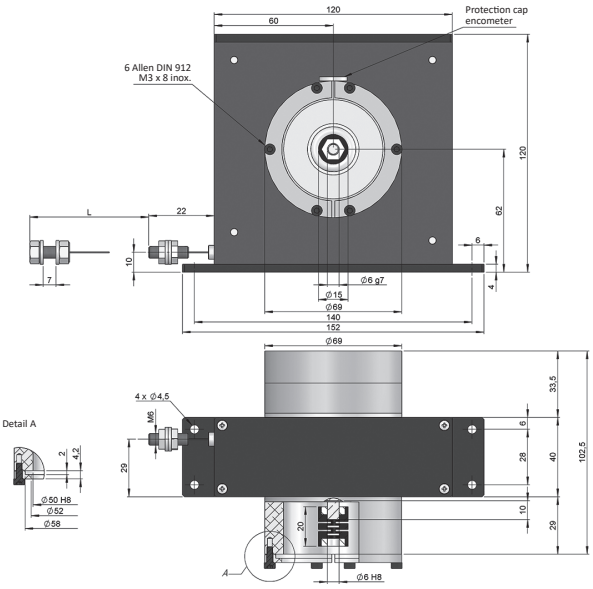
ENCO-METER EM10

EXTENDIBLE CABLE MEASUREMENT SYSTEM

- Measuring linear distances up to 10 meters
- Any mounting position possible
- Protection class IP51 according to DIN EN 60529
- Anodised and pressurized options available
- The drum shaft can drive any kind of rotary encoder (encoder, potentiometer, ...)
- Stainless steel extendible cable Ø 0,61 AISI316

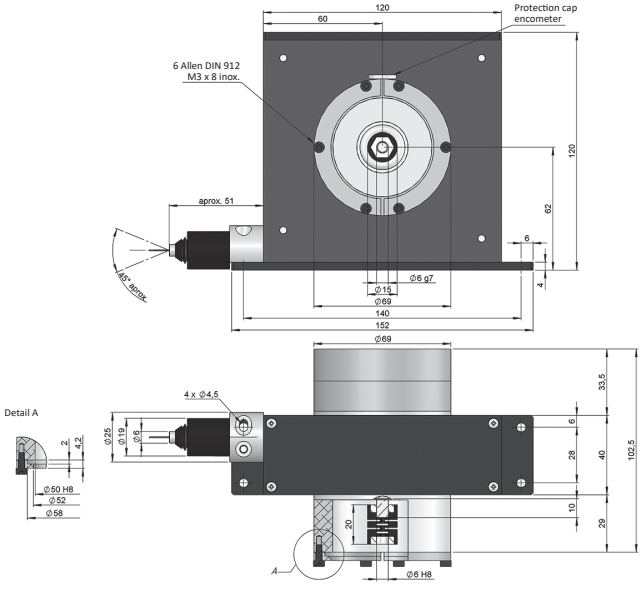
Linear measurement system | Extendible cable | 45° | Pressurized | IP 51 | Express Delivery

90.1810



Drawing 90.1810 with standard bell synchro and coupling type 1

90.1810.FX



Drawing 90.1810.FX with flexible accessory, standard bell synchro and coupling type 1

REFERENCE

Reference example: 90.1810.SY1

Serie	Fixing system to sensor	Coupling	Special Customer
90.1810 / 90.1810.FX	.□□	□	.□□
90.1810. Standard **90.1810.FX.** Flexible accessory	**SY.** Standard bell synchro **CL.** Clamping bell	**1.** PFP 1520 06/06 **2.** PFP 1520 06/6.35 **3.** PFP 2224 06/10	**AW.** Inverted caps (*) **BF.** Outdoor (Anodised 5µm) **BL.** Saline environment (Anodised 20µm) **BD.** Pressurized

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.

(*) Only available with the standard version.

ENCO-METER EM10

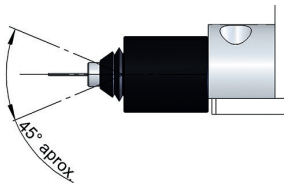
EXTENDIBLE CABLE MEASUREMENT SYSTEM

TECHNICAL SPECIFICATIONS

MODEL	EM10
Reference	*90.1810 / 90.1810.FX*
Travel	300 mm ±0,06 / per turn
Cable (*)	Ø 0,61 stainless steel AISI316 (structure 19 x 7 + 0)
Measurement range, up to (mm)	10000
Maximum cable extension (mm)	10010
Minimum cable static tension	6 N
Maximum cable static tension	13 N
Maximum extension acceleration	25 m/s^2
Maximum recovery accelaration	12 m/s^2
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.

FLEXIBLE ACCESSORY (FX)



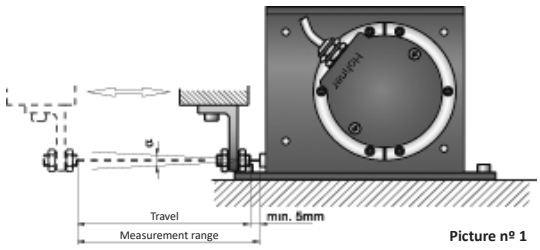
ENCO-METERS with flexible accessory FX (90.1404.FX, 90.1808.FX, 90.1810.FX) allow a misalignment of the extendable cable up to 45°.

ANODISED OPTIONS

+ Special Customer BF: 5 microns anodised housing for using in outdoor environments.

+ Special Customer BL: 20 microns anodised housing protected against the aggressive effect of the saltwater air.

INSTALLATION



Picture nº 1

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.

Special customer AW for inverted caps.

EM 90.1810: α < 2° | EM 90.1810.FX: α < 45°

OUTPUT DEVICES

We can also supply the draw wire system already coupled to an electronic output device that could be an incremental encoder, absolute encoder or potentiometer.

ABSOLUTE OR INCREMENTAL 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:

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

POTENTIOMETER

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

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

As standard, we have potentiometers of R = 10KΩ and n = 10 turns. It must be taken into consideration that the mechanical travel of the potentiometer may limit the ENCO-METER measurement range.

Electronic output devices that are delivered coupled to an ENCO-METER have an orientation of 45°. See Installation picture nº 1.

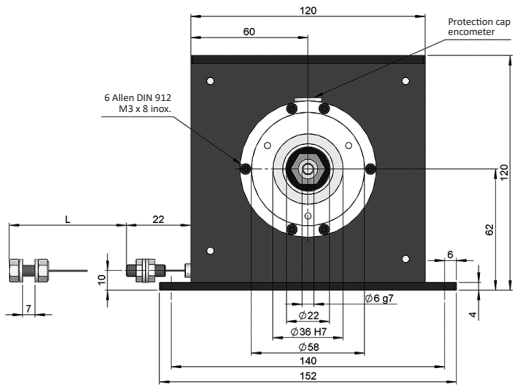
If devices are not supplied assembled, we recommend mounting the sensor on the ENCO-METER without the seal.

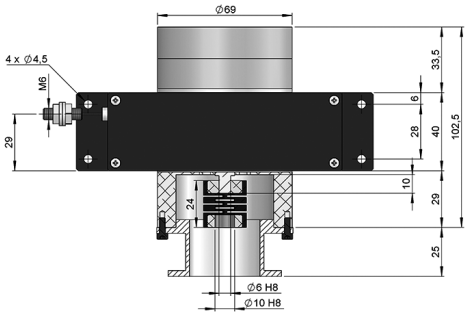
ENCO-METER EM10

EXTENDIBLE CABLE MEASUREMENT SYSTEM

FIXING SENSOR SYSTEM DIMENSIONS

Fixing system to sensor type CL
Clamping bell

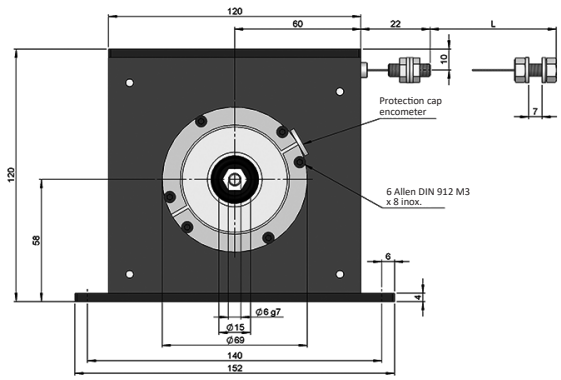


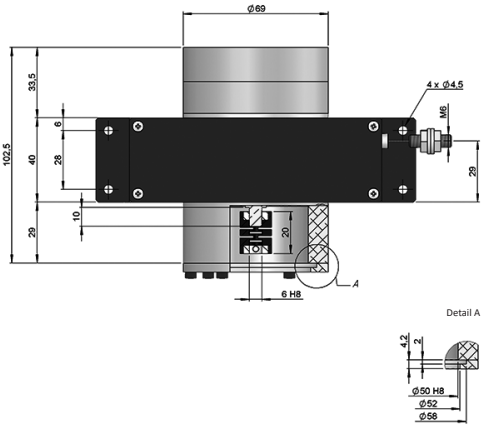


Coupling type 3
PFP 2224 06/10

SPECIAL CUSTOMER OPTIONS

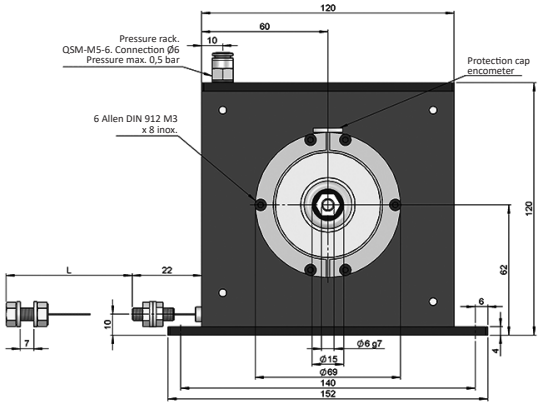
AW - Inverted caps

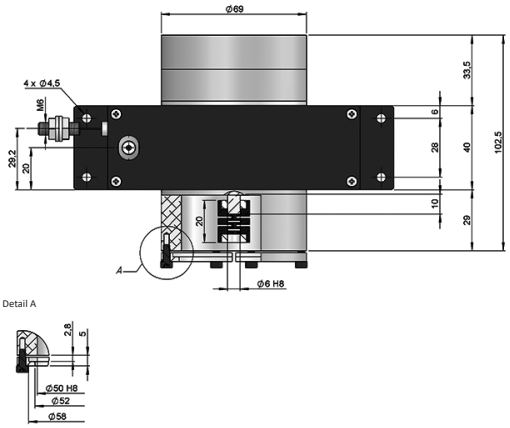




Drawing 90.1810, Special Customer AW

BD - Pressurized option





Drawing 90.1810 , Special Customer BD