



FAGOR AUTOMATION

**ENCODER ANGULAR MODELO: H2AS-D200**

***ANGULAR ENCODER MODEL: H2AS-D200***

**MANUAL DE INSTALACION / *INSTALLATION MANUAL***

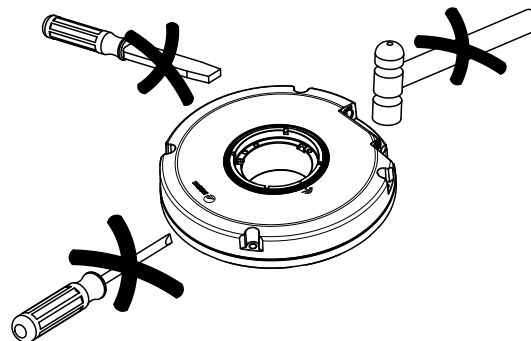
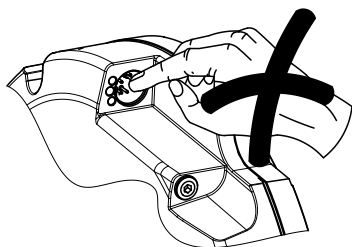
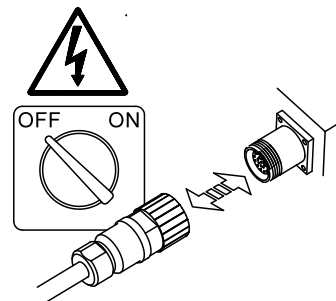
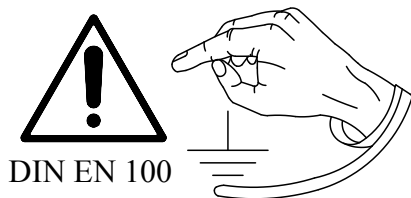
Manual Code: 14460227

Manual Version: 1901

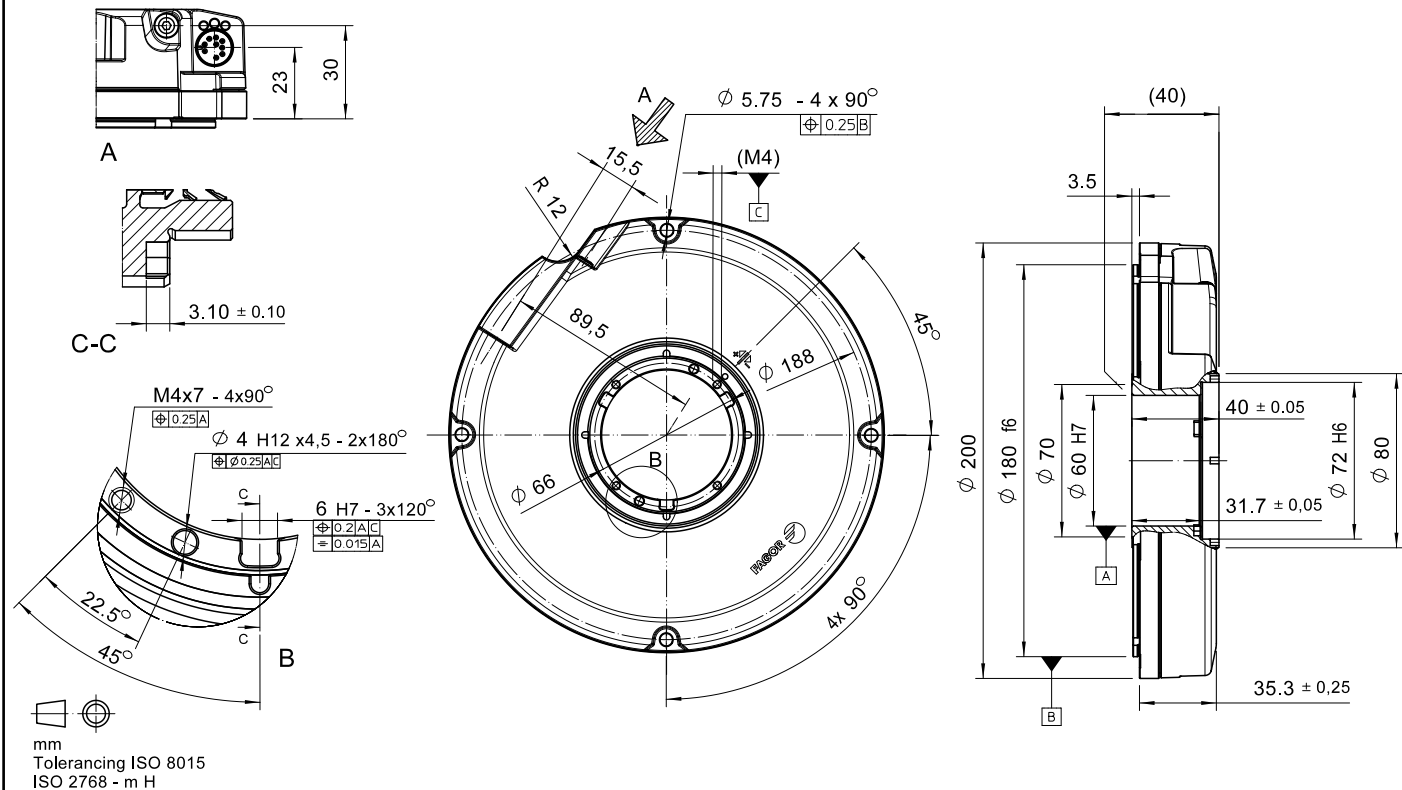




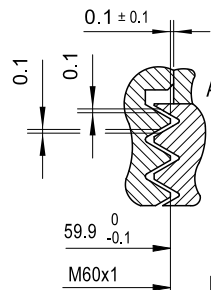
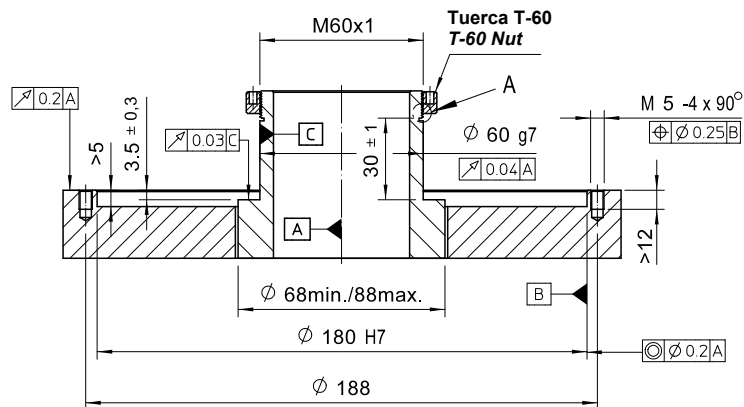
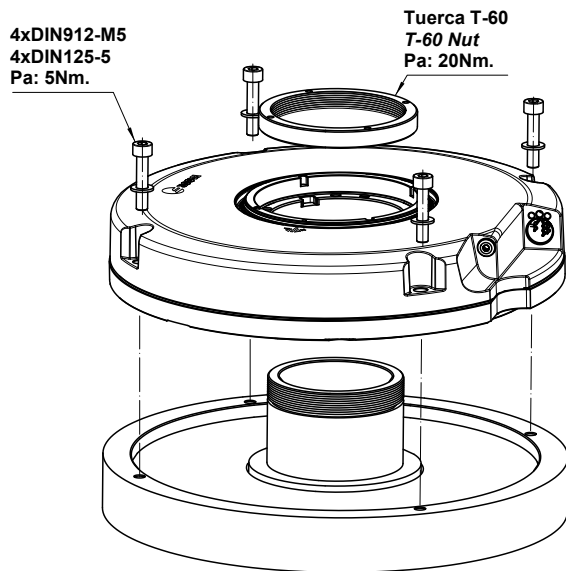
## Precaución / Caution



# Dimensiones / Dimensions

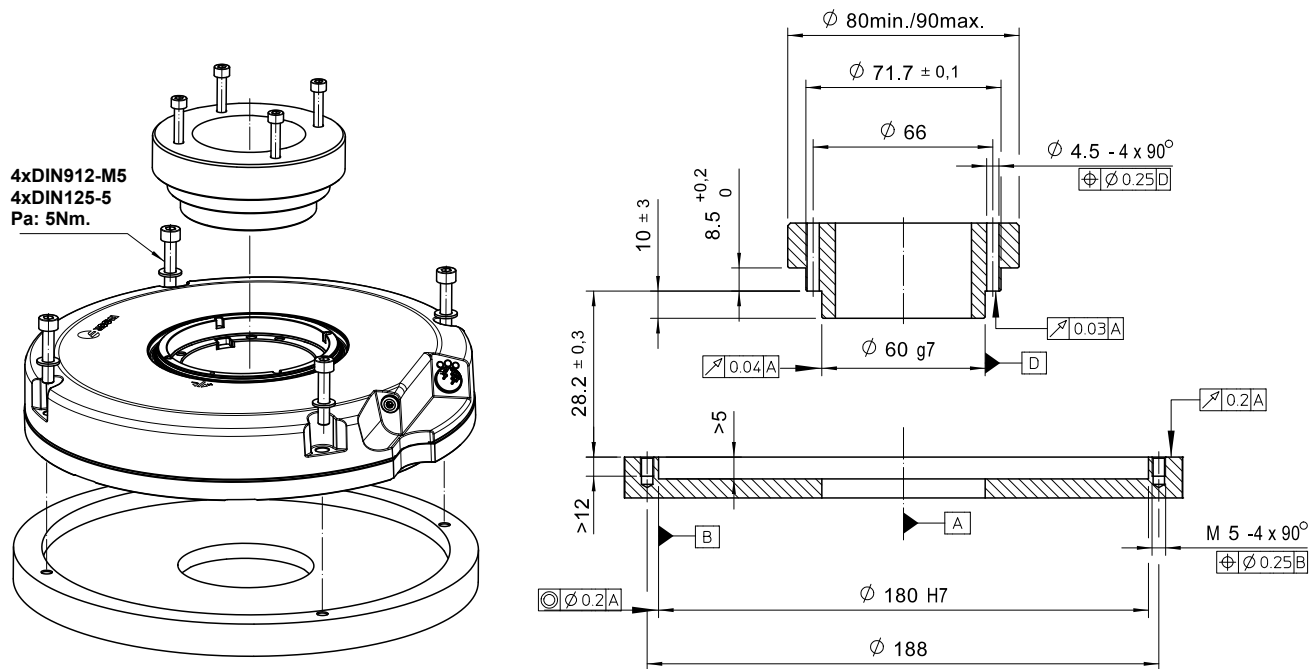


## Posibilidades de montaje / Mounting possibilities



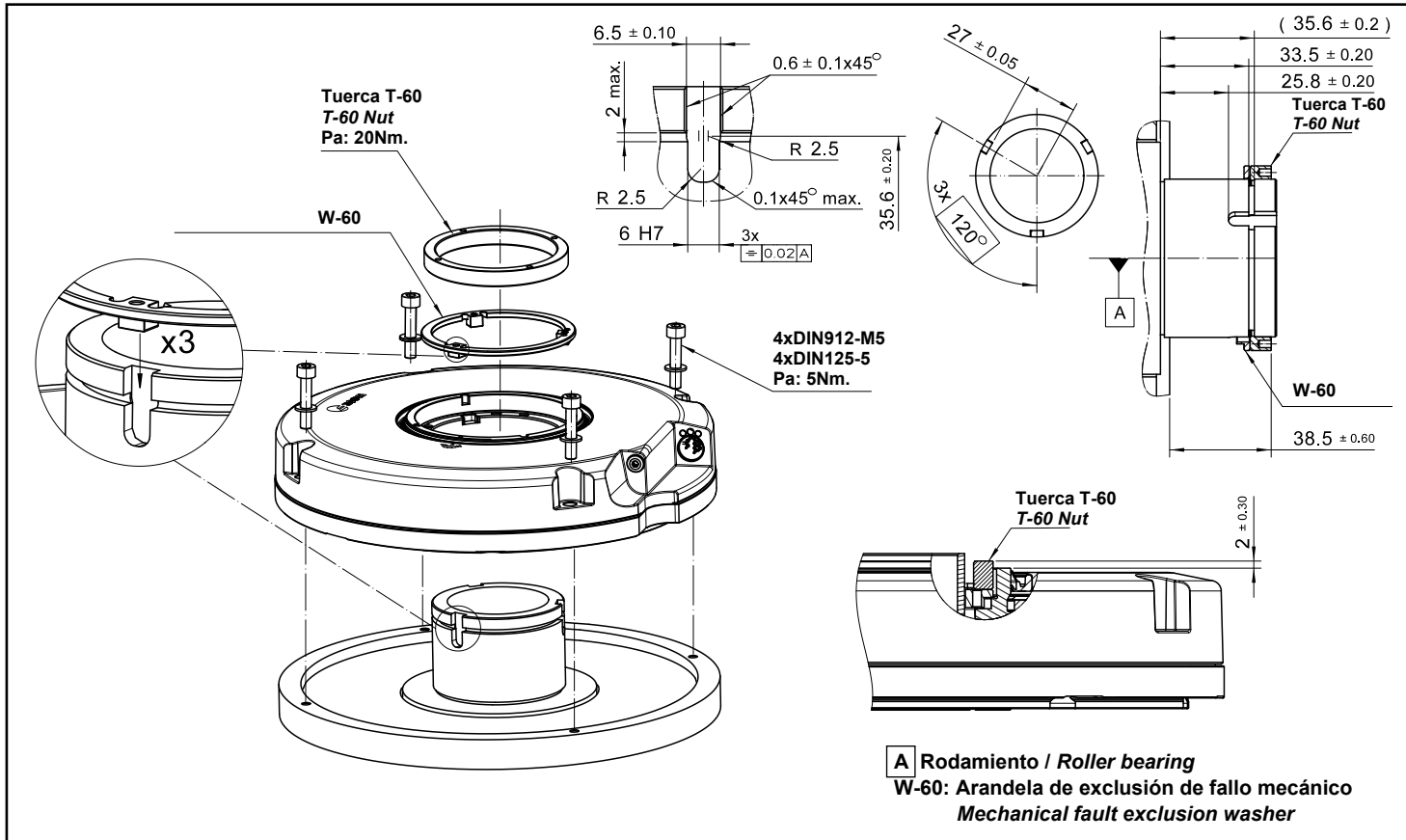
**A** Rodamiento / Roller bearing

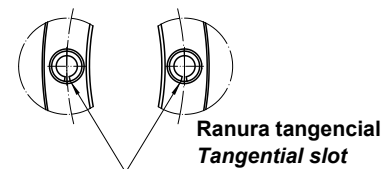
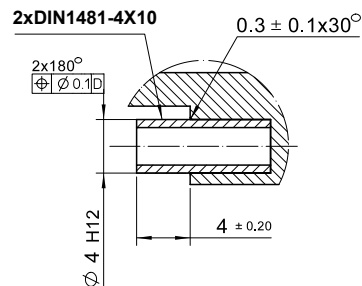
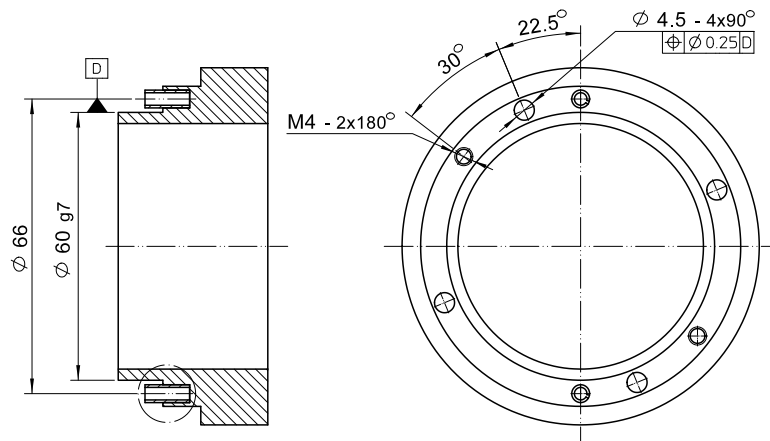
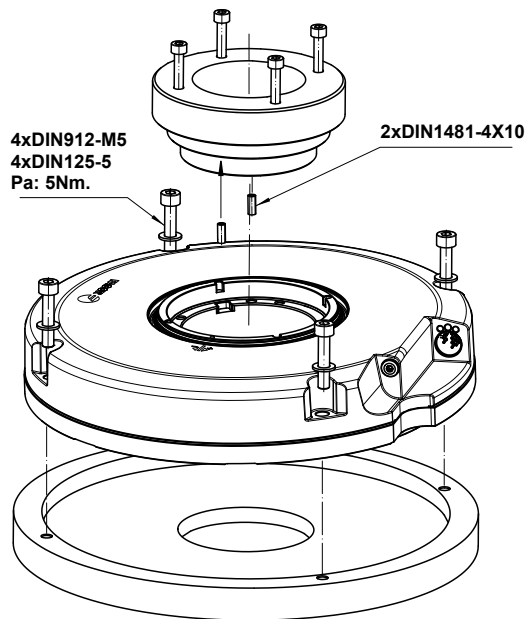
Pa = par de apriete / tightening torque



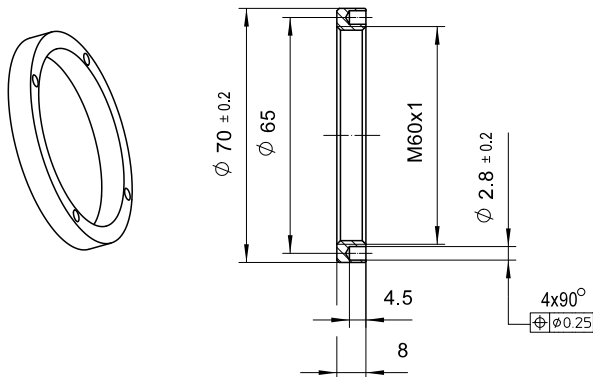
**A** Rodamiento / *Roller bearing*

**Opción exclusión de fallo mecánico / Option mechanical fault exclusion**

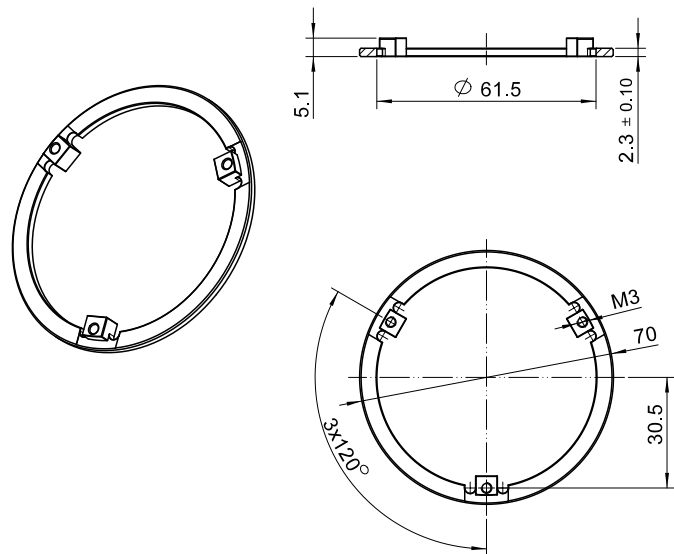




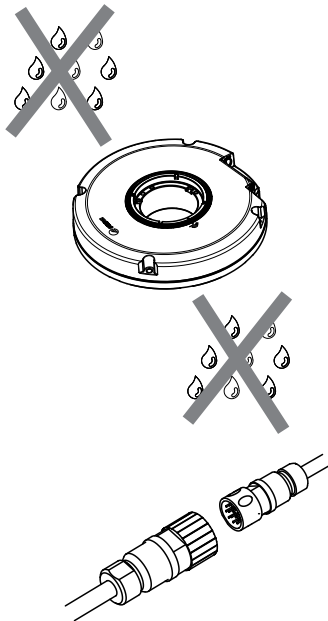
**Tuerca T-60 / T-60 Nut**  
(Cod: 82620151)



**Arandela de exclusión de fallo mecánico W-60**  
*W-60 Mechanical fault exclusion washer*  
(Cod: 82620156)

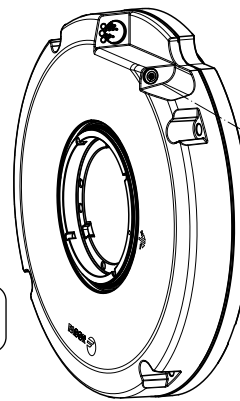
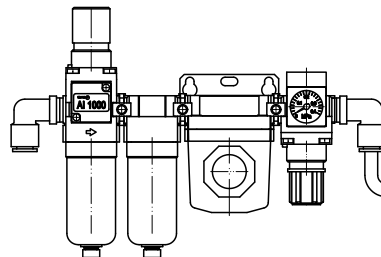


**Máximo grado de protección IP 64**  
**Maximum IP Code IP 64**



**Para grado de protección > IP 64**  
**For IP Code > IP 64**

**Unidades de Filtro de Aire Fagor**  
**Fagor Air Filter Units**



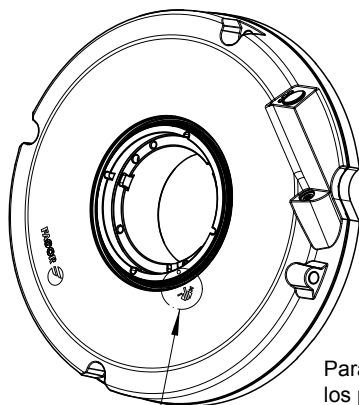
**Pa = 1 Nm**  
**SW 8**

**Cod.: 82620173**

**Para > IP 64**  
**For > IP 64**

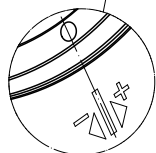
**1 bar / 14.5 psi / 0.1 MPa**  
**1-4 l/min**  
**Calidad aire: clase 1.4.1.**  
**Air quality: class 1.4.1.**  
**ISO 8573-1**

(SW) Tamaño de la llave hexagonal / *Size of Allen wrench*



Para instalar el encoder en la posición 0° girar el eje hasta alinear los puntos marcados en el eje y cuerpo.

*For installing the encoder on the 0° position turn the shaft and align the marks on the shaft and body.*

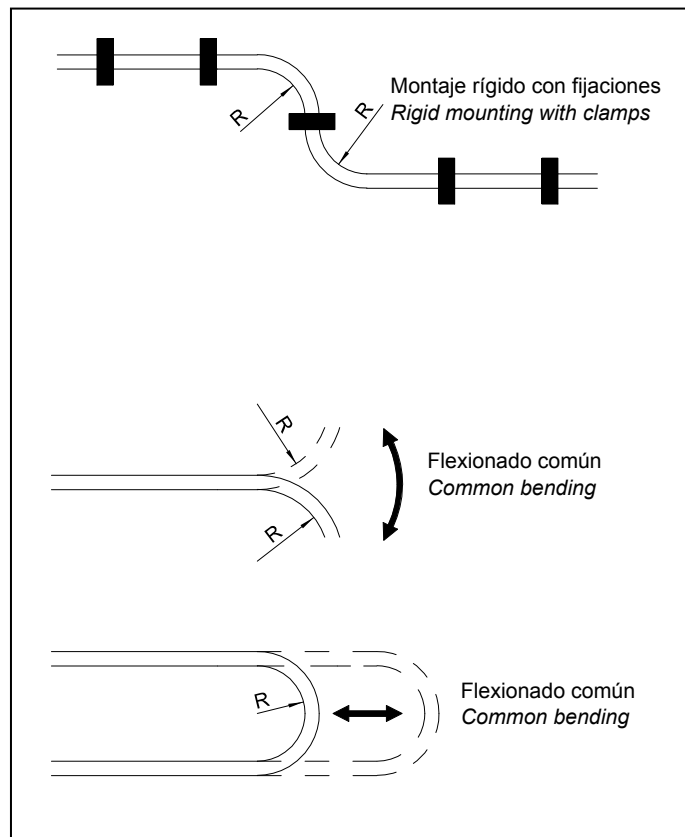


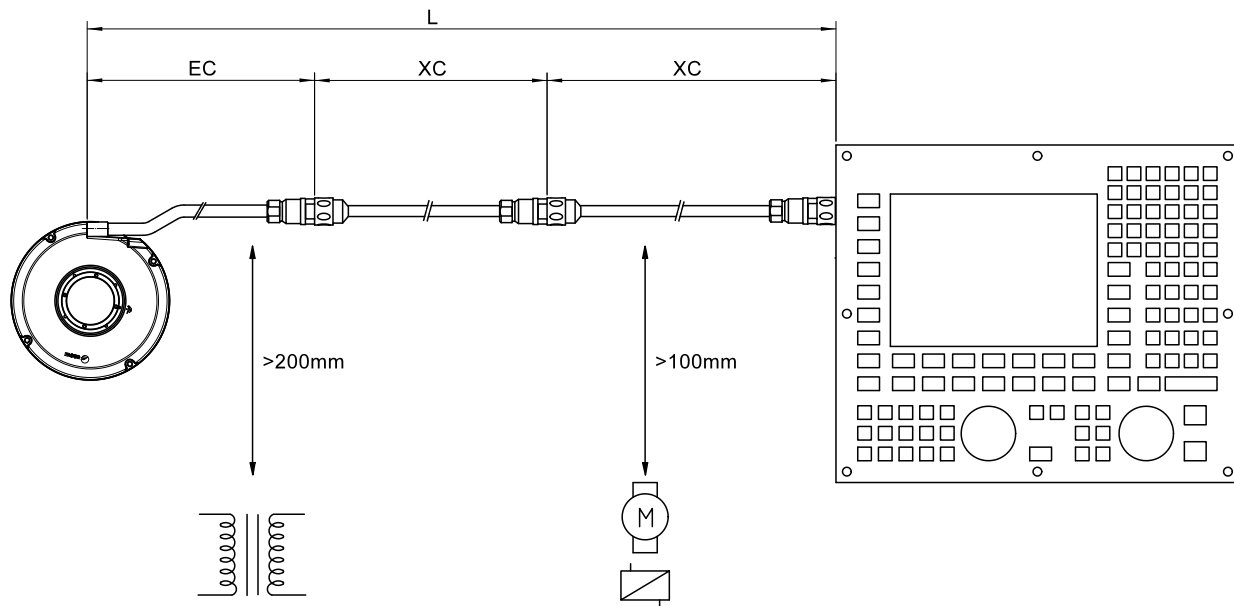
$\pm 5^\circ$

Sentido de contaje  
Counting direction

## Características eléctricas / *Electrical characteristics*

|                                                     |                          |          |
|-----------------------------------------------------|--------------------------|----------|
| H2AS-27-D200                                        |                          |          |
| Alimentación / <i>Power supply</i>                  | 5 V (3.6...5,25), 250 mA |          |
| Resolución / Número posiciones por vuelta           | 27 bits (134 217 728)    |          |
| <i>Resolution / Number of positions per turn</i>    | 1 Vpp: 32 768            |          |
| Longitud del cable / <i>Cable length</i>            | 100 m / 328 ft           |          |
| Número de bits / <i>Number of bits</i>              | 27                       |          |
| Tipo de datos / <i>Data type</i>                    | Gray                     |          |
| Paridad / <i>Parity</i>                             | Impar / <i>Odd</i>       |          |
| Timeout                                             | 450 µs                   |          |
| Radio de curvatura / <i>Bending radius</i>          |                          |          |
|                                                     | Rígido / <i>Rigid</i>    | Flexible |
| Φ 6 mm                                              | > 24 mm                  | > 60 mm  |
| Φ 10 mm (con protección) / <i>(with protection)</i> | > 35 mm                  | > 60 mm  |
| Φ 8 mm                                              | > 50 mm                  | > 64 mm  |





## Cables para conexión de encoders absolutos Fagor a sistemas Siemens

### Cables for connection of Fagor absolute encoders to Siemens systems

#### Sistemas Siemens SMC 20 / Siemens SMC 20 systems

Conexión directa Cable EC / Direct connection EC cable

EC-B-S1 Longitud / length = 1, 3, 6, 9 m

|                                                            |                                                                                                    |                                                    |  |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------|--|
| Conexión con alargadera<br>Connection with extension cable | $(4 \times 2 \times 0.14 \text{ mm}^2 + 4 \times 0.5 \text{ mm}^2 + (4 \times 0.14 \text{ mm}^2))$ |                                                    |  |
| Cable EC                                                   | Alargadera intermedia opcional XCint<br>Intermediate extension cable optional XCint                | Alargadera XC / Extension cable XC                 |  |
| EC-B-C9 Longitud / length = 1, 3 m                         | XC-C8-F-C9 Longitud / length = 5, 10, 15, 20, 25 m                                                 | XC-C8-F-S1 Longitud / length = 5, 10, 15, 20, 25 m |  |

#### Sistemas Siemens SME 25 / Siemens SME 25 systems

Conexión directa Cable EC / Direct connection EC cable

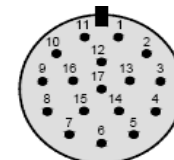
EC-B-C9 Longitud / length = 1, 3, 6, 9 m

|                                                            |                                                                                                    |                                                    |  |
|------------------------------------------------------------|----------------------------------------------------------------------------------------------------|----------------------------------------------------|--|
| Conexión con alargadera<br>Connection with extension cable | $(4 \times 2 \times 0.14 \text{ mm}^2 + 4 \times 0.5 \text{ mm}^2 + (4 \times 0.14 \text{ mm}^2))$ |                                                    |  |
| Cable EC                                                   | Alargadera intermedia opcional XCint<br>Intermediate extension cable optional XCint                | Alargadera XC / Extension cable XC                 |  |
| EC-B-C9 Longitud / length = 1, 3 m                         | XC-C8-F-C9 Longitud / length = 5, 10, 15, 20, 25 m                                                 | XC-C8-F-C9 Longitud / length = 5, 10, 15, 20, 25 m |  |

| EC ...B – C9    | Conector circular 17 macho / 17-pin male round connector |                    |              |             |              |              |                |                   |                 |                            |                 |                   |                                  |                    |
|-----------------|----------------------------------------------------------|--------------------|--------------|-------------|--------------|--------------|----------------|-------------------|-----------------|----------------------------|-----------------|-------------------|----------------------------------|--------------------|
| PIN             | 15                                                       | 16                 | 12           | 13          | 14           | 17           | 8              | 9                 | 7               | 1                          | 10              | 4                 | 11                               | Carcasa<br>Housing |
| SEÑAL<br>SIGNAL | A                                                        | /A                 | B            | /B          | DATA         | /DATA        | REQ            | /REQ              | +5V             | +5V sensor                 | 0V              | 0V<br>sensor      | Tierra<br>Ground                 | Tierra<br>Ground   |
| COLOR           | Verde<br>Green                                           | Amarillo<br>Yellow | Azul<br>Blue | Rojo<br>Red | Gris<br>Grey | Rosa<br>Pink | Negro<br>Black | Violeta<br>Purple | Marrón<br>Brown | Verde claro<br>Light green | Blanco<br>White | Naranja<br>Orange | Malla interna<br>Internal Shield | Malla<br>Shield    |



EC...B - C9



## Condiciones de garantía / *Warranty terms*

Las condiciones de garantía de este producto están disponibles en la zona de descargas del sitio web corporativo de FAGOR.

<http://www.fagorautomation.com>. (Tipo de fichero: Condiciones generales de venta-Garantía).

*The warranty conditions for this product are available in the downloads section of FAGOR's corporate website at <http://www.fagorautomation.com>.*

*(Type of file: General Terms and Conditions of Purchase - Warranty).*

## Declaración de conformidad / *Declaration of conformity*

La declaración de conformidad de este producto está disponible en la zona de descargas del sitio web corporativo de FAGOR.

<http://www.fagorautomation.com>. (Tipo de fichero: Declaración de conformidad).

*The declaration of conformity for this product is available in the downloads section of FAGOR'S corporate website at <http://www.fagorautomation.com>.*

*(Type of file: Declaration of conformity).*

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