

# HEIDENHAIN

Montageanleitung  
*Mounting Instructions*  
Instructions de montage  
*Istruzioni di montaggio*  
Instrucciones de montaje

## RON 225

5/2010

Warnhinweise

*Warnings*

Recommandations

*Avvertenze*

Advertencias



Abmessungen

*Dimensions*

Dimensions

*Dimensioni*

Dimensiones



Montage

*Assembly*

Montage

*Montaggio*

Montaje



Technische und Elektrische Kennwerte

*Technical and electrical data specifications*

Caractéristiques techniques et électriques

*Dati tecnici e elettrici*

Datos técnicos y eléctricos





**Achtung:** Die Montage und Inbetriebnahme ist von einer Fachkraft für Elektrik und Feinmechanik unter Beachtung der örtlichen Sicherheitsvorschriften vorzunehmen.

Die Steckverbindung darf nur spannungsfrei verbunden oder gelöst werden.

Der Antrieb darf während der Montage nicht in Betrieb gesetzt werden.

**Note:** *Mounting and commissioning is to be conducted by a specialist in electrical equipment and precision mechanics under compliance with local safety regulations.*

*Do not engage or disengage any connections while under power.*

*The drive must not be put into operation during installation.*

**Attention:** Le montage et la mise en service doivent être réalisés par une personne qualifiée en électricité et mécanique de précision dans le respect des règles de sécurité locales.

Le connecteur ne doit être branché ou débranché que hors tension.

L'entraînement ne doit pas être mis en route pendant le montage.

**Attenzione:** *far eseguire montaggio e messa in servizio da un tecnico specializzato in impianti elettrici e meccanica di precisione in ottemperanza alle disposizioni di sicurezza locali.*

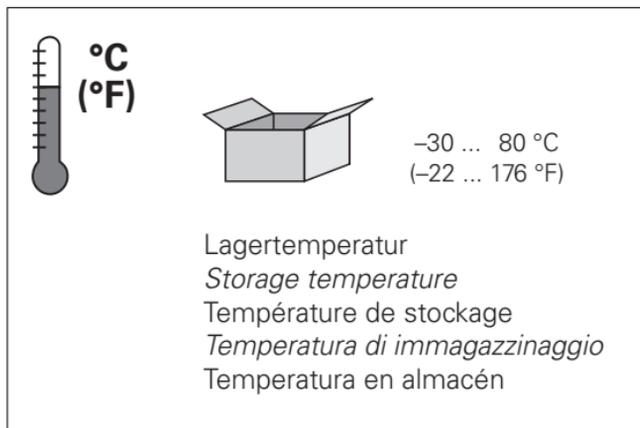
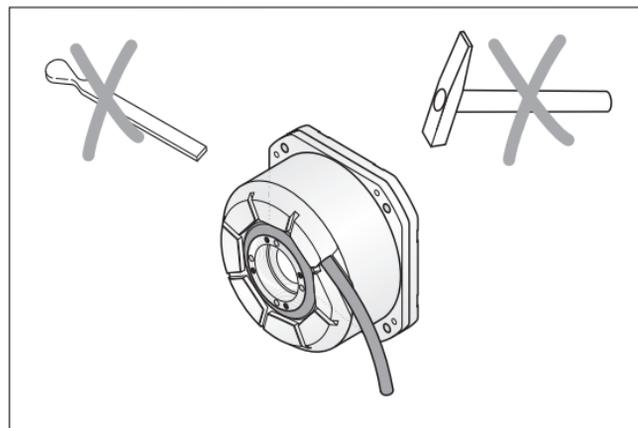
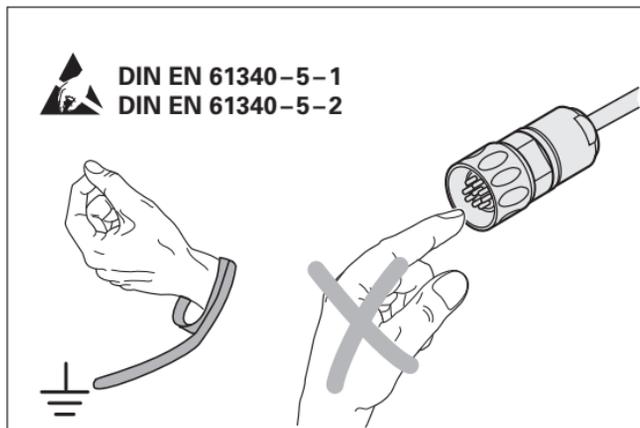
*Collegare o staccare i collegamenti soltanto in assenza di tensione.*

*L'azionamento non deve essere messo in funzione durante il montaggio.*

**Atención:** El montaje y la puesta en marcha deben ser realizados por un especialista en electricidad y mecánica de precisión, observando las prescripciones locales de seguridad.

Conectar o desconectar el conector sólo en ausencia de tensión.

El accionamiento no debe estar en marcha durante el montaje.



**Maße in mm**  
**Dimensions in mm**  
**Cotes en mm**  
**Dimensioni in mm**  
**Dimensiones en mm**



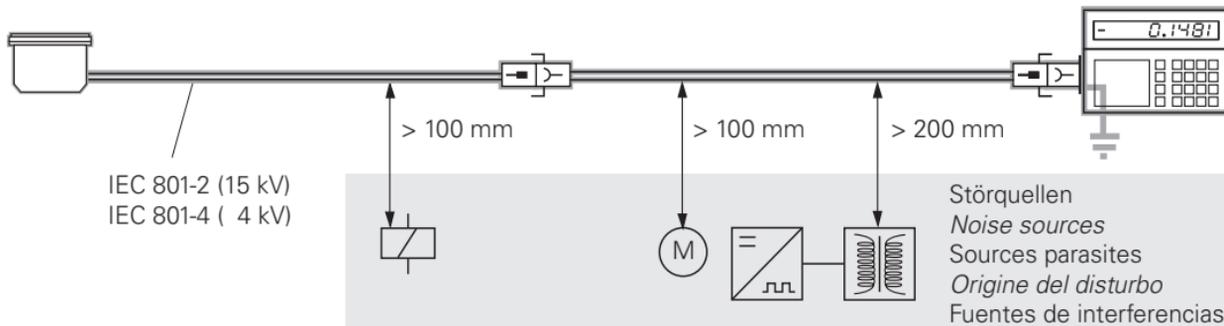
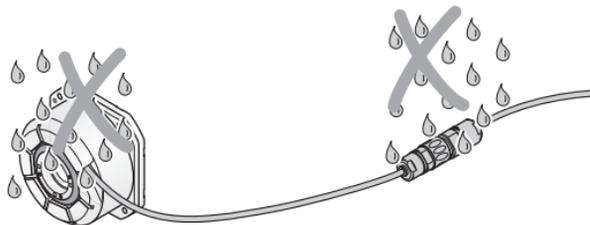
**Vorsicht:** Der direkte Kontakt von Flüssigkeiten mit Messgerät und Steckverbinder ist zu vermeiden!

**Attention:** Avoid direct contact of fluids with the encoder and connector!

**Attention:** Eviter le contact direct de liquides sur le système de mesure et le connecteur!

**Attenzione:** Evitare che lo strumento di misura e il connettore vengano a contatto con liquidi!

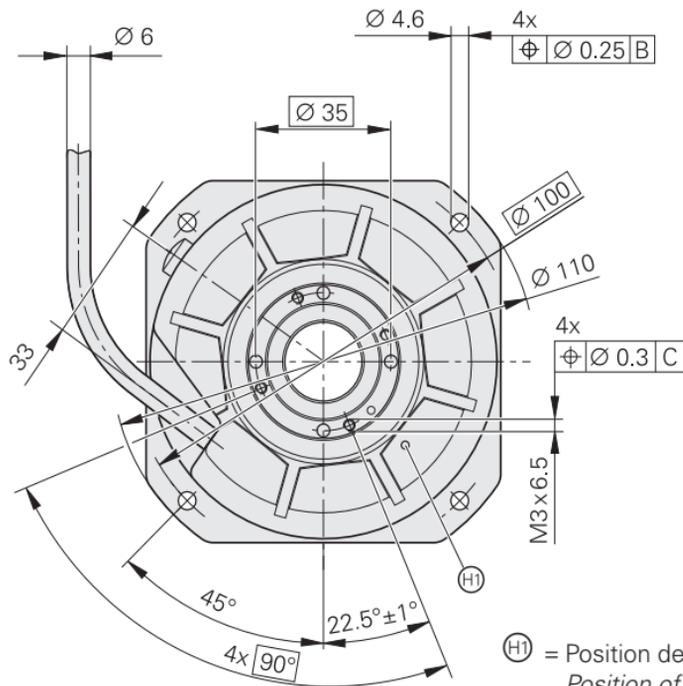
**Atención:** ¡Evitar el contacto directo de líquidos con el sistema de medida y el conector!



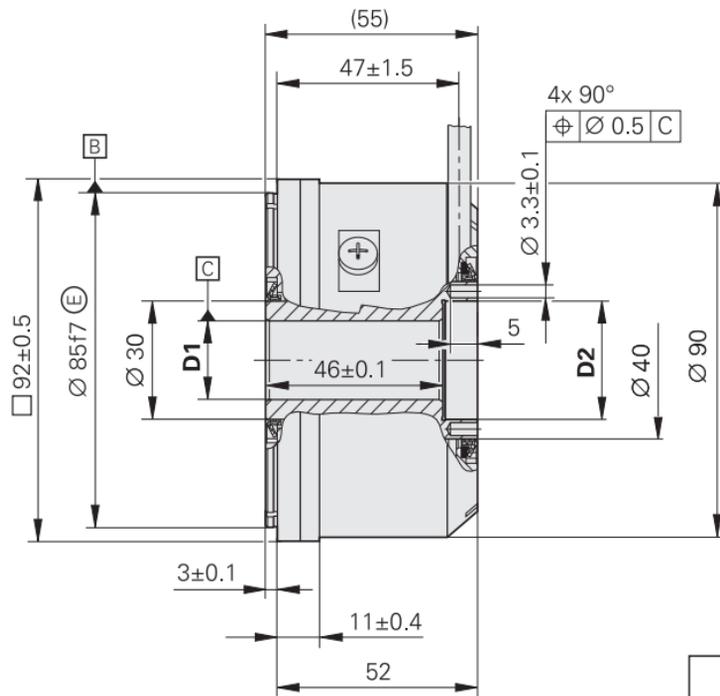
mm



Tolerancing ISO 8015  
ISO 2768 - m H  
< 6 mm:  $\pm 0.2$  mm



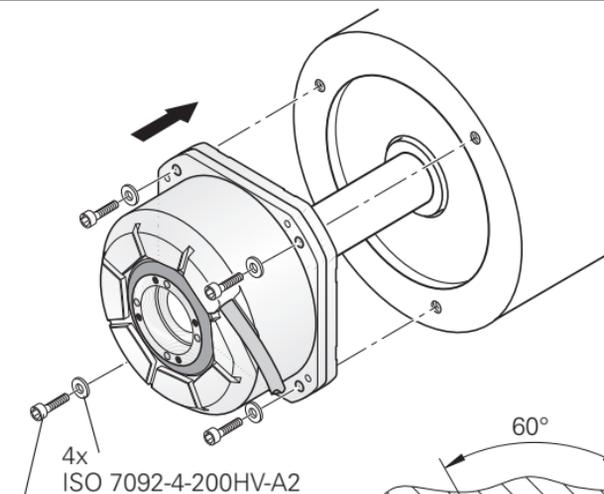
$\textcircled{H1}$  = Position des Referenzsignals  $\pm 5^\circ$   
 Position of reference signal  $\pm 5^\circ$   
 Position du signal de référence  $\pm 5^\circ$   
 Posizione del segnale di riferimento  $\pm 5^\circ$   
 Posición de la señal de referencia  $\pm 5^\circ$



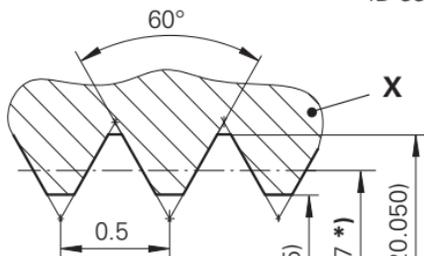
D1	D2
$\text{Ø } 20H7 \text{ (E)}$	$\text{Ø } 30H7 \text{ (E)}$
$\text{Ø } 22H7 \text{ (E)}$	





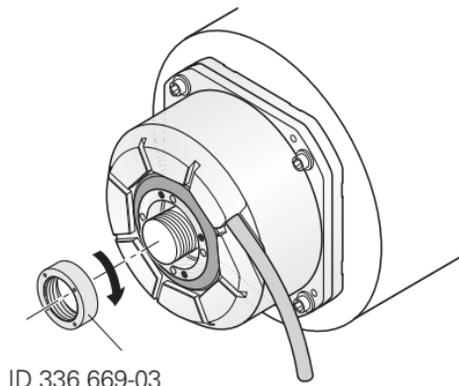


4x  
ISO 7092-4-200HV-A2  
4 x M4  
**M<sub>d</sub>** = 2.5 Nm

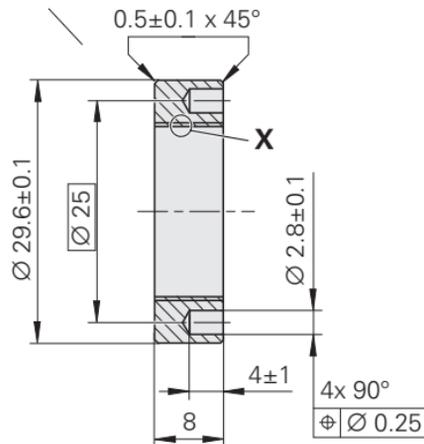


\*) Flankendurchmesser  
Pitch diameter  
Diamètre sur flancs  
Diametro medio  
Diámetro de flanco

( $\varnothing 19.554 \pm 0.045$ )  
( $\varnothing 19.763 \pm 0.037$  \*)  
( $\varnothing 20.050$ )

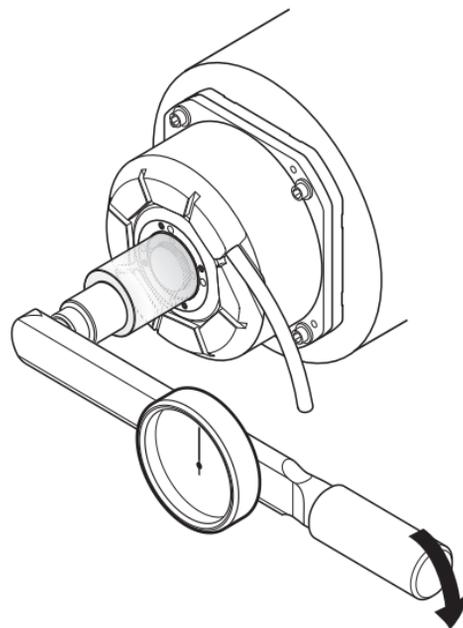
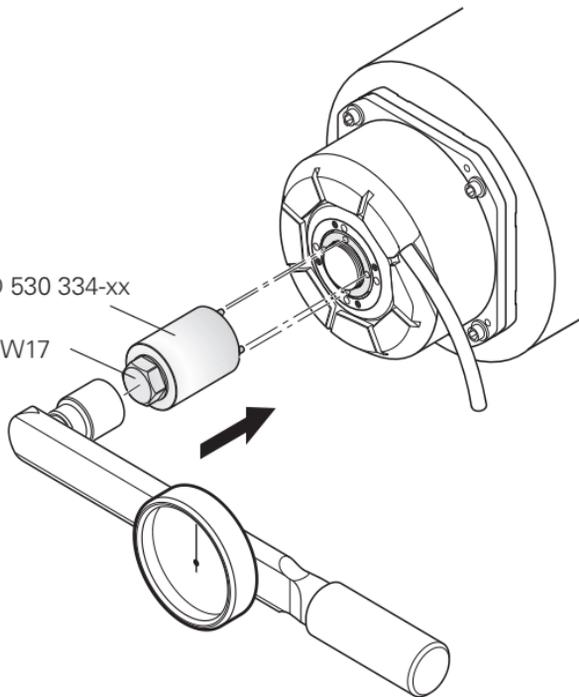


ID 336 669-03

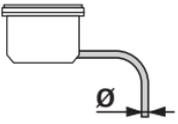
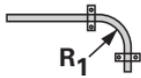
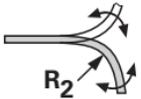
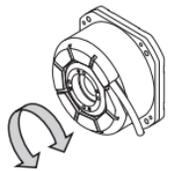


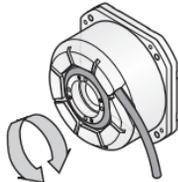
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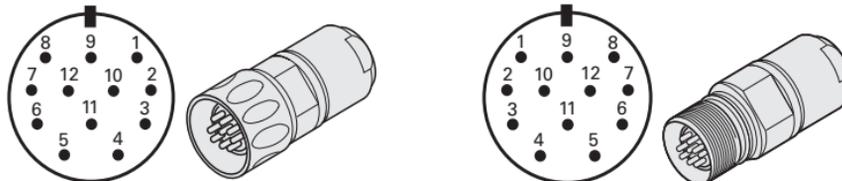
SW17



**M<sub>d</sub>** = 22 Nm – 2 Nm

	 <p><math>T \geq -40\text{ °C}</math> (<math>-40\text{ °F}</math>)</p>	 <p><math>T \geq -10\text{ °C}</math> (<math>14\text{ °F}</math>)</p>		<p><math>M_d \leq 0.08\text{ Nm (20 °C)}</math> <math>I = 73 \cdot 10^{-6}\text{ kgm}^2</math></p>
<p><b>Ø 6 mm</b></p>	<p><math>R_1 \geq 20\text{ mm}</math></p>	<p><math>R_2 \geq 75\text{ mm}</math></p>		
<p><b>Ø 8 mm</b></p> 	<p><math>R_1 \geq 40\text{ mm}</math></p>	<p><math>R_2 \geq 100\text{ mm}</math></p>		

 $n \leq \begin{cases} \frac{f_{\max.}}{Z} \cdot 10^3 \cdot 60\text{ min}^{-1} (-3\text{dB}) \\ 3\,000\text{ min}^{-1} \end{cases}$	<p>Z = Strichzahl Line count Nombre de traits Numero di impulsi Número de impulsos</p> <p>f<sub>max.</sub> = Abtastfrequenz Scanning frequency Fréquence de balayage Frequenza di scansione Frecuencia de captación</p> <p>f<sub>max.</sub> = 500 kHz</p>
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<b>12</b>	<b>2</b>	<b>10</b>	<b>11</b>	<b>5</b>	<b>6</b>	<b>8</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>/</b>	<b>9</b>
<b>U<sub>P</sub></b>	<b>Sensor</b> U <sub>P</sub>	<b>0V</b>	<b>Sensor</b> 0V	<b>U<sub>a1</sub></b>	<b><math>\overline{U_{a1}}</math></b>	<b>U<sub>a2</sub></b>	<b><math>\overline{U_{a2}}</math></b>	<b>U<sub>a0</sub></b>	<b><math>\overline{U_{a0}}</math></b>	<b><math>\overline{U_{aS}}</math></b>	<b>/</b>	<b>/</b>
BNGN	BU	WHGN	WH	BN	GN	GY	PK	RD	BK	VT	YE	/

Die Sensorleitung ist intern mit der Versorgungsleitung verbunden.

*The sensor line is connected internally with the power supply.*

La ligne de palpeur est reliée de manière interne à la ligne d'alimentation.

*La linea del sensore è collegata internamente con la linea di alimentazione.*

La línea de sensor está unida internamente con la línea de alimentación.

Schirm auf Gehäuse

*Shield on housing*

Blindage sur boîtier

*Schermo sulla carcassa*

Blindaje a carcasa

**Spannungsversorgung**

*Power supply*

*Tension d'alimentation*

*Tensione di alimentazione*

*Tensión de alimentación*

**$U_p = 5\text{ V} \pm 10\%$**

am Gerät, *at encoder*, sur l'appareil, *integrato*, en el aparato.

I max. 150 mA

(ohne Last, *Without load*, sans charge, *senza carico*, sin carga)

EN 50 178

PELV  $\neq$  EN 60 204-1

**Ausgangssignale**

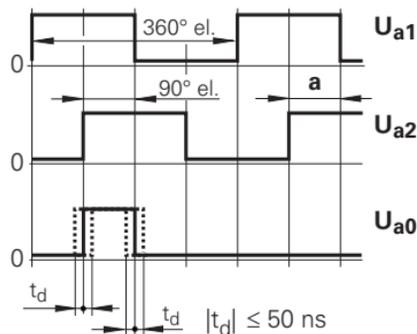
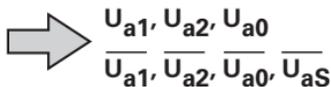
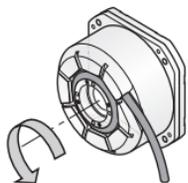
*Output signals*

*Signaux de sortie*

*Segnali in uscita*

*Señales de salida*

**TTL**



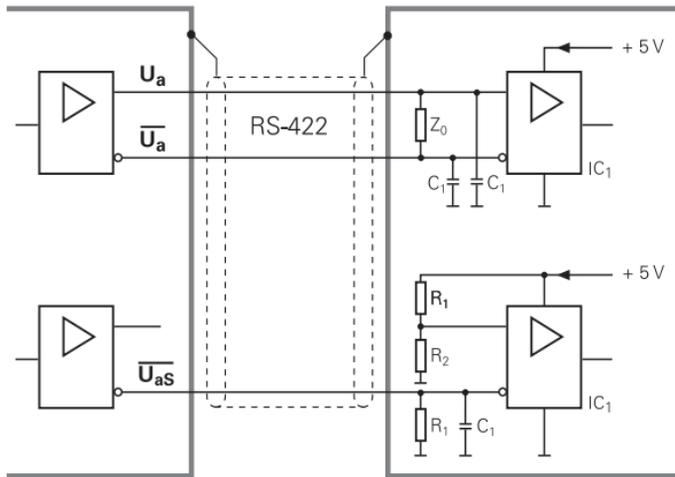
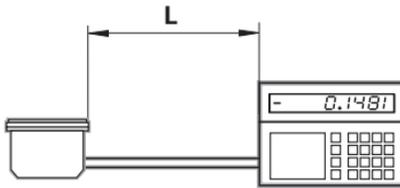
$a \geq 0.125 \mu\text{s}$

$\overline{U_{aS}}$ : Störungssignal  
*Fault detection signal*  
 Signal de perturbation  
*Segnale di malfunzionamento*  
 Señal de avería

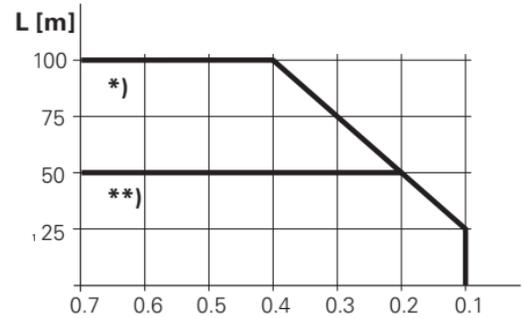
$\overline{U_{aS}} = \text{High}$ : ✓

$\overline{U_{aS}} = \text{Low}$ : ⚠





$R_1 = 4.7 \text{ k}\Omega$   
 $R_2 = 1.8 \text{ k}\Omega$   
 $Z_0 = 120 \text{ }\Omega$   
 $C_1 = 220 \text{ pF}$



Flankenabstand  
 Edge separation  
 Ecart entre les fronts  
 Distanza tra i fronti  
 Distancia entre flancos

\*) ohne  
 without  
 sans  
 senza  
 sin

$\overline{U_{aS}}$

\*\*) mit  
 with  
 avec  
 con  
 con

$\overline{U_{aS}}$

# HEIDENHAIN

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