



# HEIDENHAIN

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



**RCN 729**   
Ø 100 mm

**RCN 829**   
Ø 100 mm

7/2009

Warnhinweise

*Warnings*

Recommandations

*Avvertenze*

Advertencias



Abmessungen

*Dimensions*

Dimensions

*Dimensioni*

Dimensiones



Montage

*Assembly*

Montage

*Montaggio*

Montaje



Elektrische und Technische Kennwerte

*Electrical data and technical specifications*

Caractéristiques électriques et techniques

*Dati elettrici e tecnici*

Datos eléctricos y técnicos





**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.*

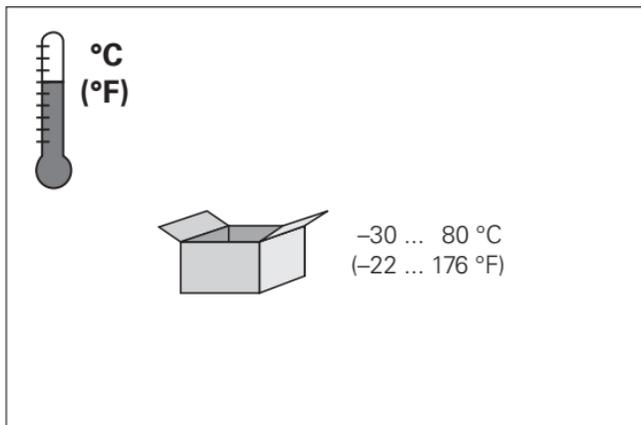
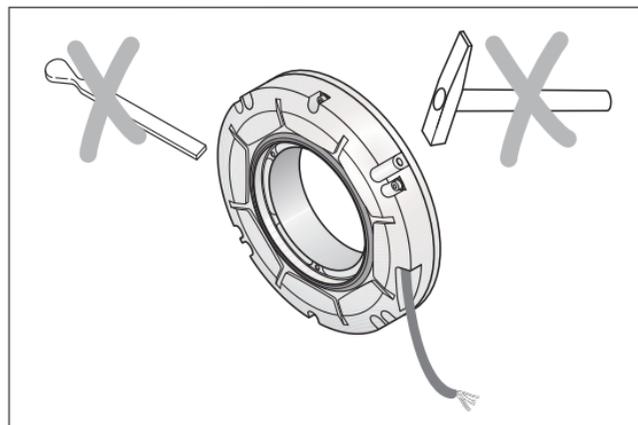
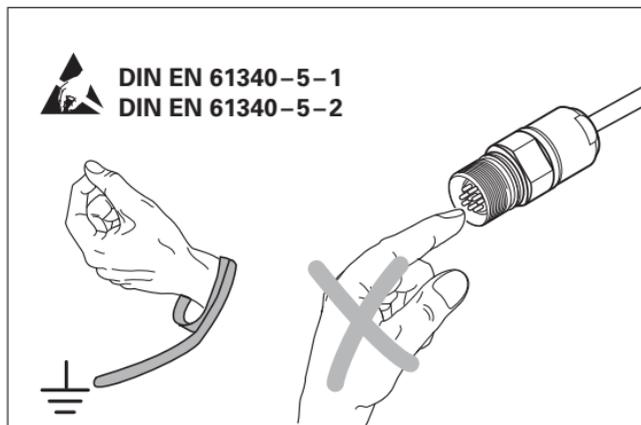
*Collegare o staccare i collegamenti soltanto in assenza di tensione.*

*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**



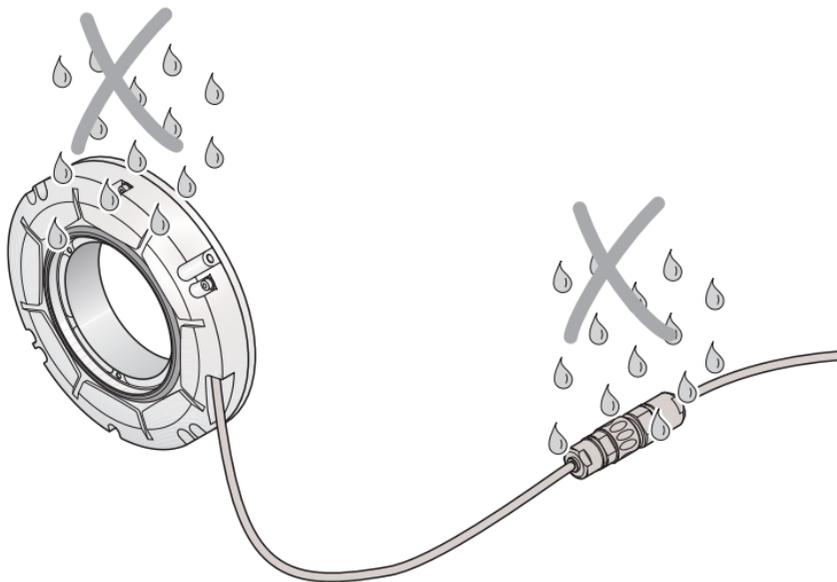
**Vorsicht:** Der direkte Kontakt von Flüssigkeiten mit Messgerät und Steckverbinder ist zu vermeiden!

**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!

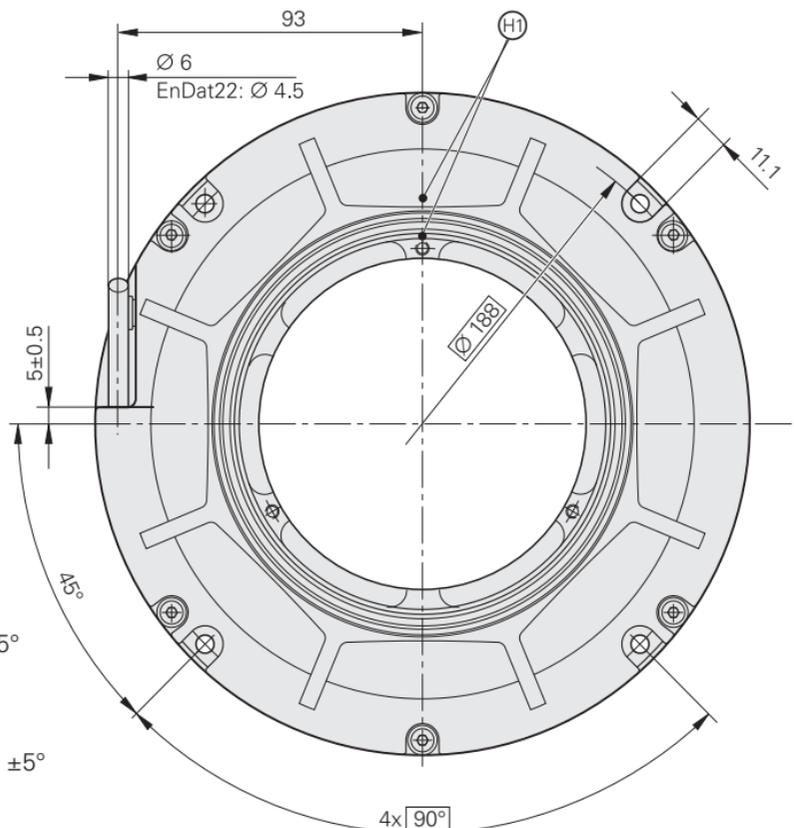
**Attenzione:** Evitare che lo strumento di misura e il connettore vengano a contatto con liquidi

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





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



⊕ = Markierung der 0° Position  $\pm 5^\circ$   
 0° position index  $\pm 5^\circ$   
 Index position  $0^\circ \pm 5^\circ$   
 Tacca della posizione  $0^\circ \pm 5^\circ$   
 Marcación de la posición  $0^\circ$  a  $\pm 5^\circ$





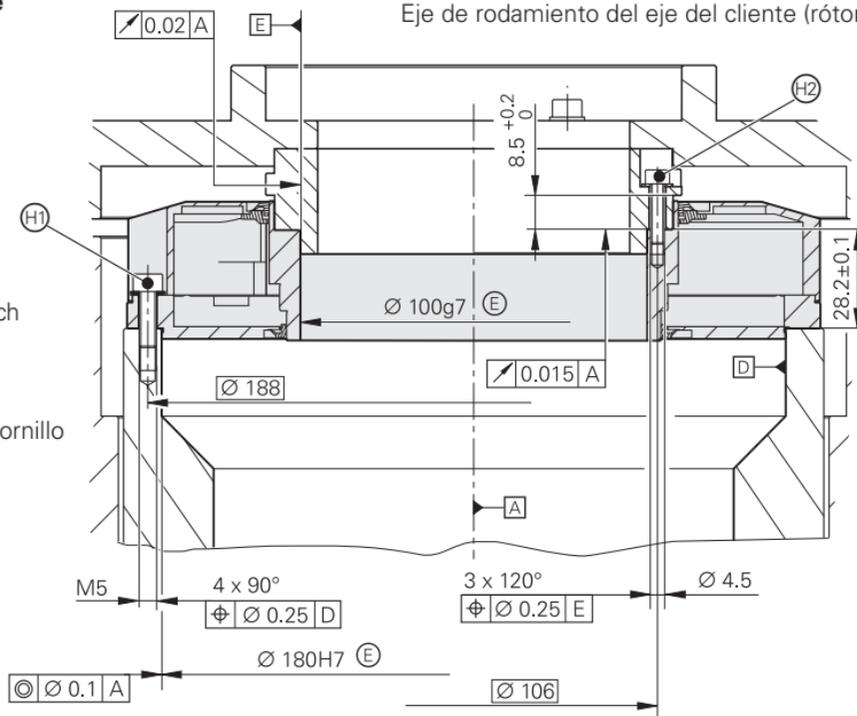
**Stirnseitige Wellenankopplung**  
**Shaft coupling on end face**  
**Accouplement sur l'arbre par la face frontale**  
**Accoppiamento albero frontale**  
**Acoplamiento frontal del eje**

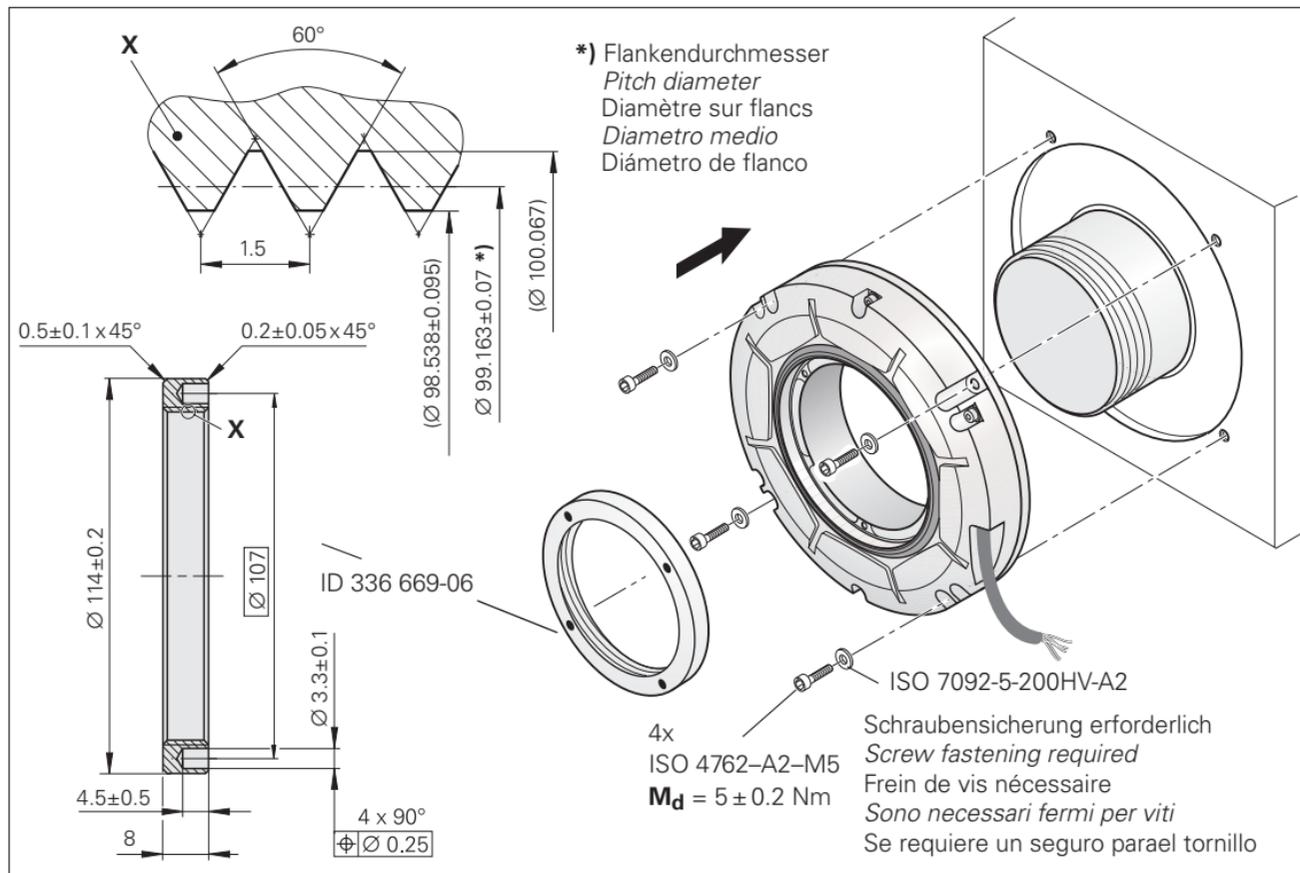
[A] = Lagerdrehachse der Kundenwelle (Rotor)  
 Bearing axis of customer's shaft  
 Axe de rotation du montage de l'arbre moteur (rotor)  
 Asse cuscinetto dell'albero cliente (Rotore)  
 Eje de rodamiento del eje del cliente (rótor)

(H1) ISO 4762-A2-M5  
 ISO 7092-5-200HV-A2  
**M<sub>d</sub>** = 5 ± 0.2 Nm

(H2) ISO 4762-A2-M4  
 ISO 7092-4-200HV-A2  
**M<sub>d</sub>** = 2.4 ± 0.2 Nm

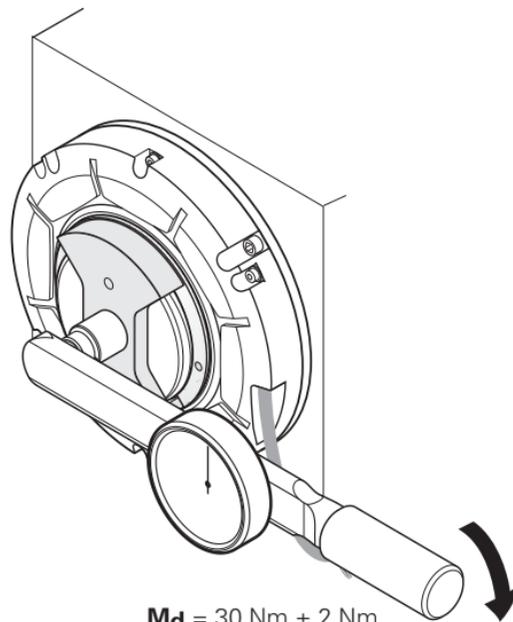
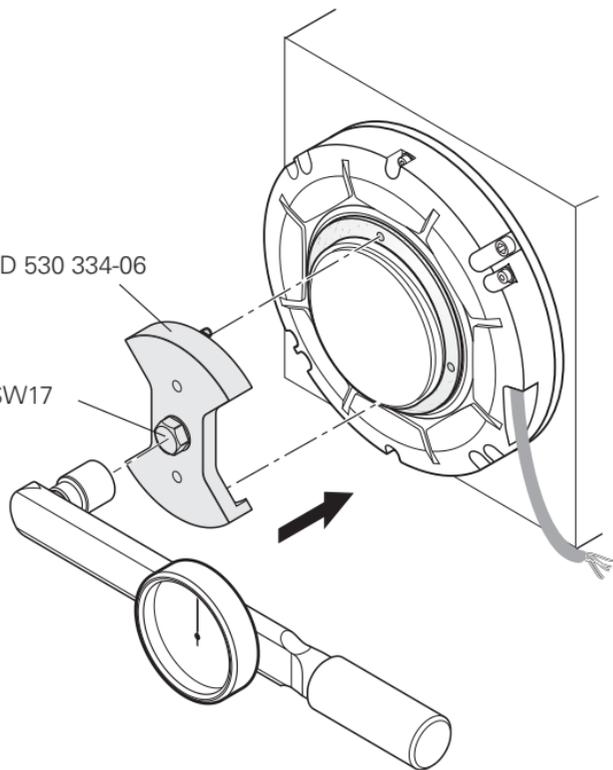
Schraubensicherung erforderlich  
 Screw fastening required  
 Frein de vis nécessaire  
 Sono necessari fermi per viti  
 Se requiere un seguro para el tornillo





ID 530 334-06

SW17

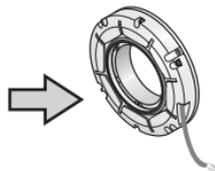
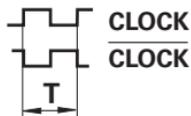


**M<sub>d</sub>** = 30 Nm ± 2 Nm



**EnDat02** (mit Inkrementalsignalen)  
*(with incremental signals)*  
 (avec signaux incrémentaux)  
*(con segnali incrementali)*  
 (con señales incrementales)

**RS-485**



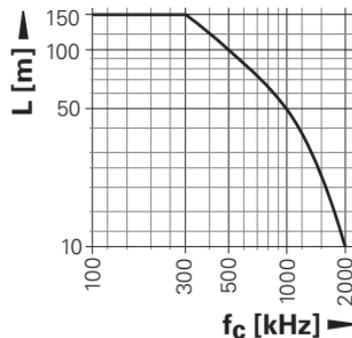
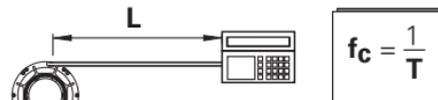
**Up = 3.6 V – 5.25 V**

(max. 350 mA)

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

EN 50 178

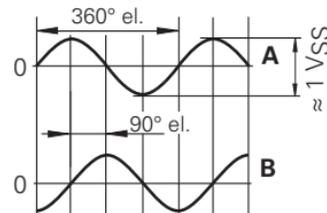
PELV ≙ EN 60204-1



**RS-485**



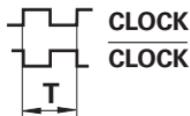
**A** · 32 768/360°  
**B** · 32 768/360°





**EnDat22** (ohne Inkrementalsignale)  
*(without incremental signals)*  
 (sans signaux incrémentaux)  
*(senza segnali incrementali)*  
 (sin señales incrementales)

**RS-485**



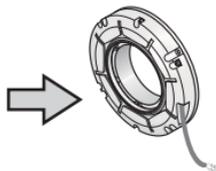
**U<sub>p</sub> = 3.6 V – 5.25 V**

(max. 350 mA)

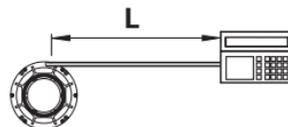
am Gerät, *at encoder*, sur l'appareil, *integrato*, en el aparato.

EN 50 178

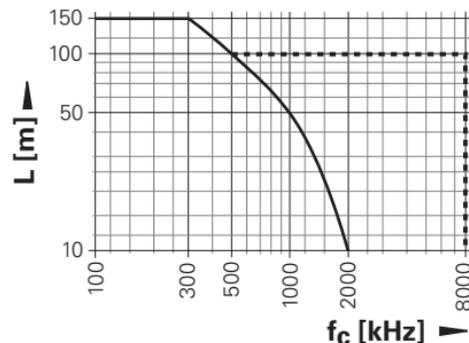
PELV  $\neq$  EN 60 204-1



**RS-485**



$$f_c = \frac{1}{T}$$



ohne Laufzeitkompensation  
*without delay compensation*  
 sans compensation de la durée du signal  
*senza compensazione del tempo di ciclo*  
 sin compensación del tiempo de propagación

.....  
 mit Laufzeitkompensation  
*with delay compensation*  
 avec compensation de la durée du signal  
*con compensazione del tempo di ciclo*  
 con compensación del tiempo de propagación



**2)** Innenschirm wenn vorhanden  
*Internal shield (if present)*  
 Blindage interne si existant  
 Schermatura interna se disponibile  
 Blindaje interno si existe

**3)** Wenn vorhanden  
*If present*  
 Si existant  
 Se disponibile  
 Si existe

	<b>7</b>	<b>1</b>	<b>10</b>	<b>4</b>	<b>2</b>	<b>3</b>	<b>5</b>	<b>6</b>	<b>11</b>
	<b>Up</b> 	<b>Sensor</b> Up	<b>0V</b> 	<b>Sensor</b> 0V	/	/	/	/	<b>2)</b>
	BNGN	BU	WHGN	WH	BK <b>3)</b>	RD <b>3)</b>	GN <b>3)</b>	BN <b>3)</b>	

Die Sensorleitung ist intern mit der Versorgungsleitung verbunden.

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

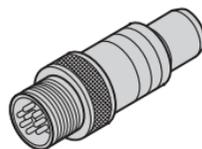
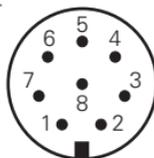
La ligne de palpeur est reliée de manière interne à la ligne d'alimentation.

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

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



← 1SS08-C4



Außenschirm auf Gehäuse  
*External shield on housing*  
 Blindage externe sur boîtier  
*Schermo esterno sulla carcassa*  
 Blindaje externo a carcasa

<b>8</b>	<b>2</b>	<b>5</b>	<b>1</b>	<b>3</b>	<b>4</b>	<b>7</b>	<b>6</b>
<b>U<sub>P</sub></b>	<b>U<sub>P</sub></b>	<b>0V</b>	<b>0V</b>	<b>DATA</b>	<b><math>\overline{\text{DATA}}</math></b>	<b>CLOCK</b>	<b><math>\overline{\text{CLOCK}}</math></b>
BNGN	BU	WHGN	WH	GY	PK	VT	YE

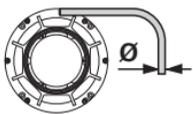
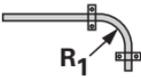
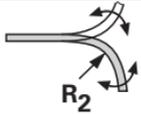
Die Sensorleitung ist intern mit der Versorgungsleitung verbunden.

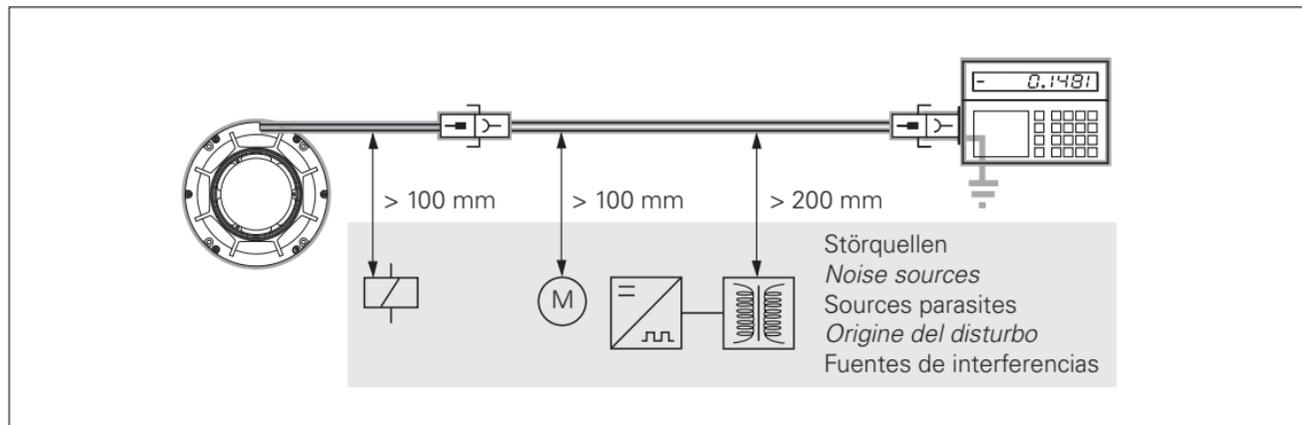
*The sensor line is connected internally with the power supply.*

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

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

	 <p><math>T \geq -40\text{ °C}</math> (-40 °F)</p>	 <p><math>T \geq -10\text{ °C}</math> (14 °F)</p>		<p><math>M_d \leq 1.5\text{ Nm}</math> (20 °C; IP 64) <math>I = 3.3 \cdot 10^{-3}\text{ kgm}^2</math></p>
<p><b>Ø 4.5 mm</b></p>	<p><math>R_1 \geq 10\text{ mm}</math></p>	<p><math>R_2 \geq 50\text{ mm}</math></p>		
<p><b>Ø 6 mm</b></p>	<p><math>R_1 \geq 20\text{ mm}</math></p>	<p><math>R_1 \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>		



# HEIDENHAIN

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**[www.heidenhain.de](http://www.heidenhain.de)**



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