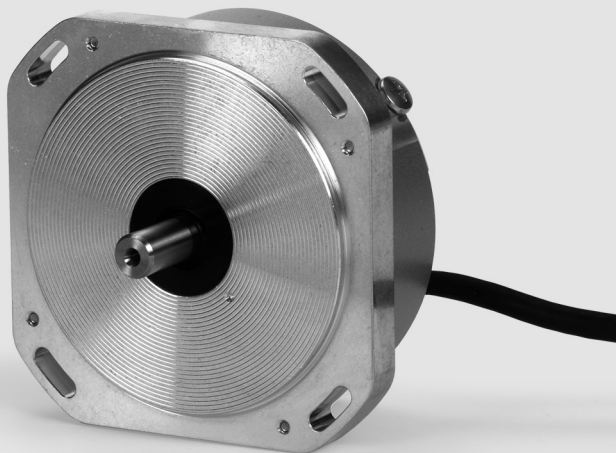




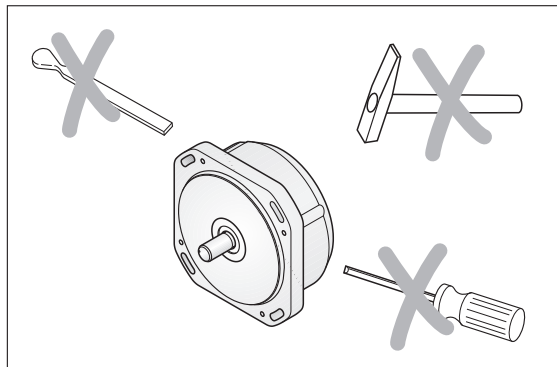
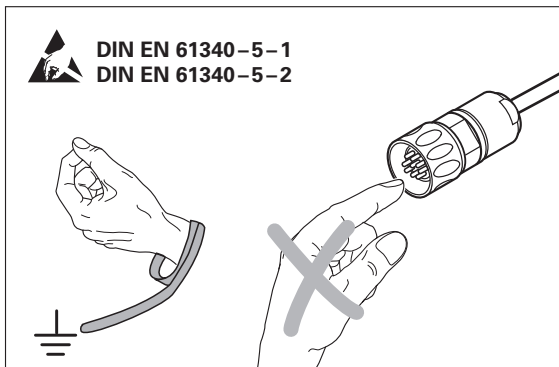
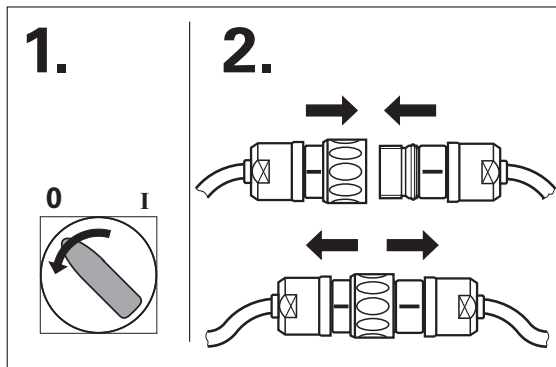
HEIDENHAIN



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

ROD 220

6/2010





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

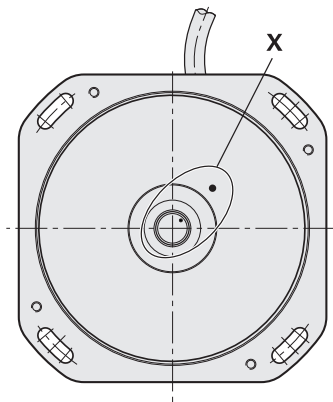
Avoid direct contact of fluids with the encoder and connector!

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

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

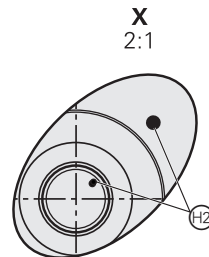
¡Evitar el contacto directo de líquidos con el sistema de medida y el conector!





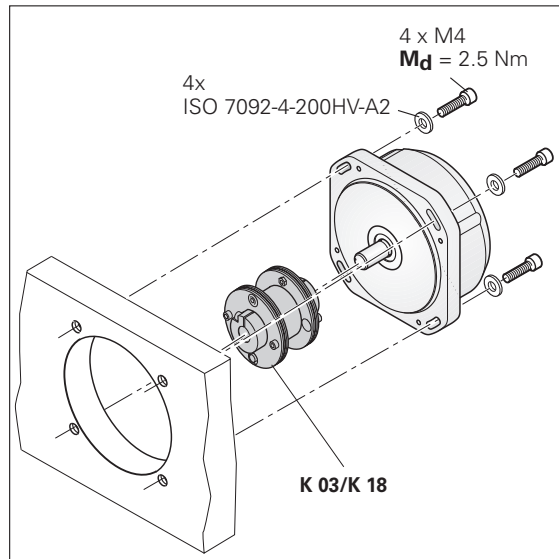
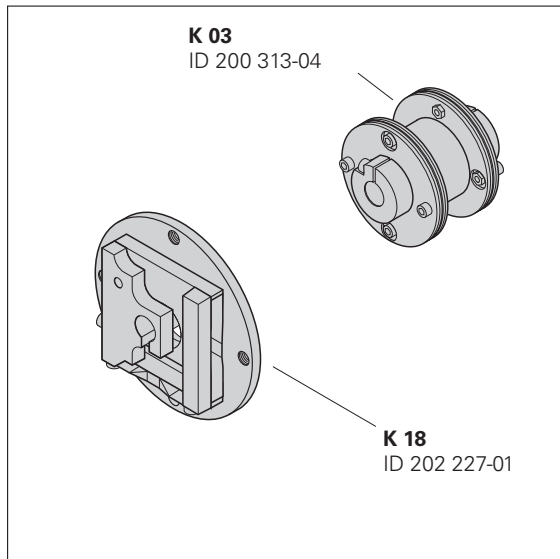
[A] = Lagerung
 Bearing
 Roulement
 Cuscinetto
 Rodamiento

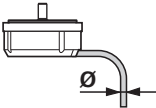


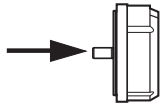


(H1) = Druckluftanschluss M5
 Compressed air connection M5
 Raccordement d'air comprimé M5
 Connessione aria-compressa M5
 Conexión de aire comprimido M5

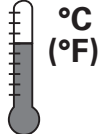
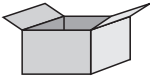
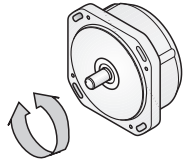


(H2) = Lage der Referenzmarke $\pm 10^\circ$
 Position of the reference mark $\pm 10^\circ$
 Position marque de référence $\pm 10^\circ$
 Posizione dell'indice di riferimento $\pm 10^\circ$
 Posición de la marca de referencia $\pm 10^\circ$

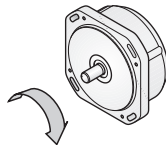
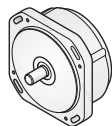
	<p>K 03: $\lambda \leq 0.3 \text{ mm}$</p> <p>K 03: $\alpha \leq 0.5^\circ$</p> <p>K 03: $\delta \leq 0.2 \text{ mm}$</p>	<p>K 18: $\lambda \leq 0.3 \text{ mm}$</p> <p>K 18: $\alpha \leq 0.5^\circ$</p> <p>K 18: $\delta \leq 0.2 \text{ mm}$</p>
--	---	---



	 <p>$T \geq -40\text{ °C}$ (40 °F)</p>	 <p>$T \geq -10\text{ °C}$ (14 °F)</p>		<p>max. 10 N</p>
<p>Ø 6 mm</p>	<p>$R_1 \geq 20\text{ mm}$</p>	<p>$R_2 \geq 75\text{ mm}$</p>		<p>max. 10 N</p>
<p>Ø 8 mm</p> 	<p>$R_1 \geq 40\text{ mm}$</p>	<p>$R_2 \geq 100\text{ mm}$</p>		

	 <p>-30 ... 80 °C (-22 ... 176 °F)</p>		<p>M_d ≤ 0.01 Nm (20 °C) I = 20 · 10⁻⁶ kgm²</p>
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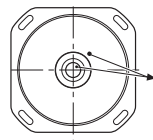
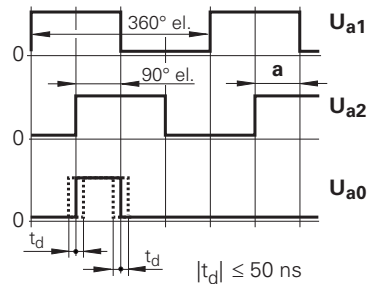
$U_p = 5V \pm 10\%$
(max. 150 mA)



U_{a1}, U_{a2}, U_{a0}
 $\overline{U_{a1}}, \overline{U_{a2}}, \overline{U_{a0}}, \overline{U_{aS}}$

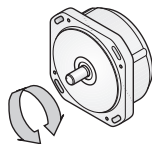
EN 50 178

PELV \perp EN 60 204-1



Z = Strichzahl
Line count
Nombre de traits
Numero di impuls
Número de impulsos

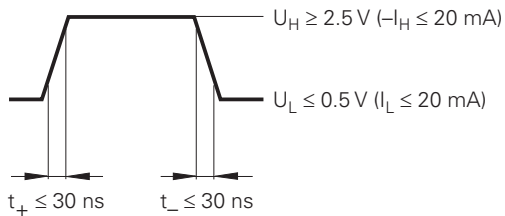
fmax. = Abtastfrequenz
Scanning frequency
Fréquence de balayage
Frequenza di scansione
Frecuencia de captación



$$n \leq \begin{cases} \frac{f_{\max.}}{Z} \cdot 10^3 \cdot 60 \text{ min}^{-1} \\ 10000 \text{ min}^{-1} \end{cases}$$

	fmax.	a
TTL	500 kHz	$\geq 0.25 \mu\text{s}$
TTL	750 kHz	$\geq 0.166 \mu\text{s}$
TTL x 2	500 kHz	$\geq 0.125 \mu\text{s}$
TTL x 2	750 kHz	$\geq 0.083 \mu\text{s}$

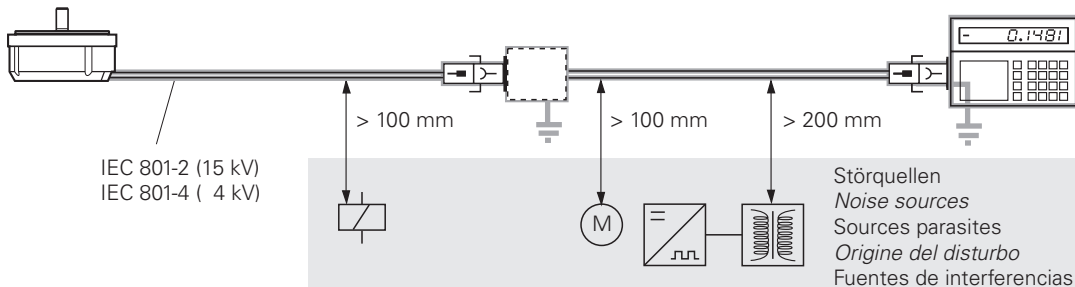
TTL

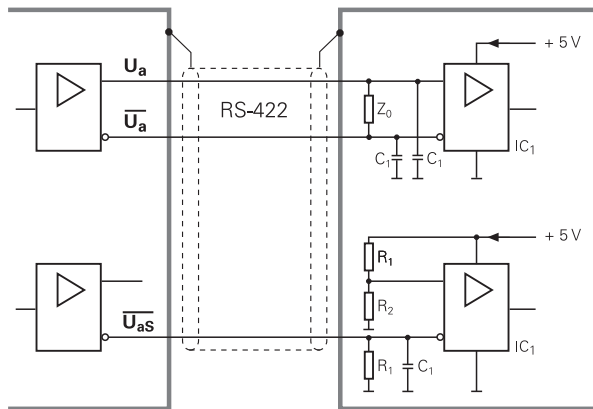
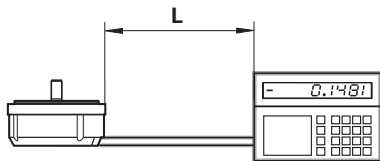


$\overline{U_{aS}}$: Störungssignal
Fault detection signal
Signal de perturbation
Segnale di malfunzionamento
Señal de avería

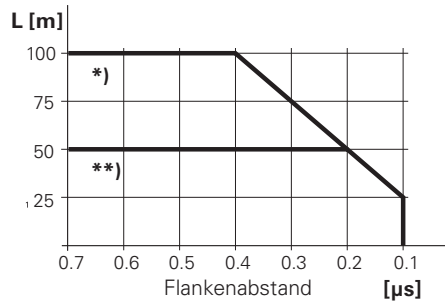
$\overline{U_{aS}} = \text{High}$: ✓

$\overline{U_{aS}} = \text{Low}$: ⚠





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



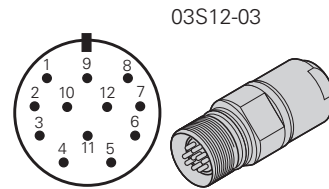
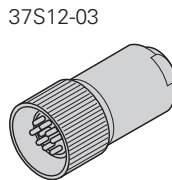
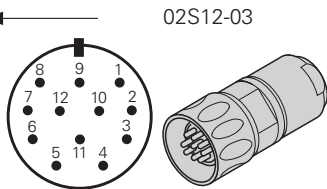
Flankenabstand
 Edge separation
 Ecart entre les fronts
 Distanza tra i fronti
 Distancia entre flancos

*) ohne
 without
 sans
 senza
 sin

$\overline{U_{aS}}$

**) mit
 with
 avec
 con
 con

$\overline{U_{aS}}$



12	2	10	11	5	6	8	1	3	4	7	/	9
5 V	Sensor Up	0 V	Sensor 0 V	U _{a1}	$\overline{U_{a1}}$	U _{a2}	$\overline{U_{a2}}$	U _{a0}	$\overline{U_{a0}}$	$\overline{U_{aS}}$	/	/
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

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