



# HEIDENHAIN

Montageanleitung  
*Mounting Instructions*  
Instructions de montage  
*Istruzioni di montaggio*  
Instrucciones de montaje  
取付説明書  
安装说明  
安裝指導手冊  
설치 지침

**TS 248**  
**TS 249**

6/2011

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**Warnhinweise**  
**Warnings**  
**Avertissement**  
**Avvertenze**  
**Notas de aviso**



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

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

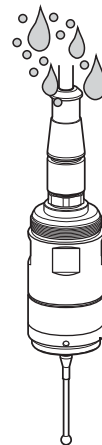
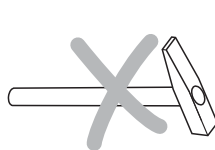
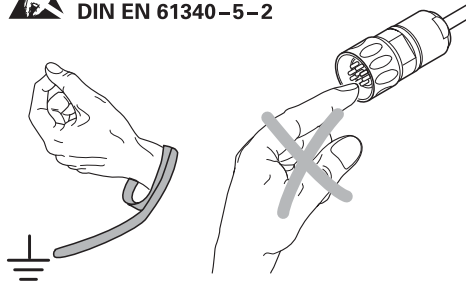
**Attention:** L'installation et la mise en service doivent être assurées par un spécialiste en électricité et en mécanique de précision dans le respect des consignes de sécurité locales.

**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.*

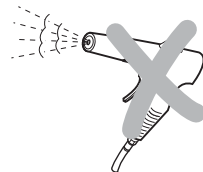
**Atención:** El montaje y puesta en marcha debe realizarse por personal especializado en electrónica y mecánica de precisión y bajo estricto cumplimiento de las disposiciones de seguridad locales.



DIN EN 61340-5-1  
DIN EN 61340-5-2



**IP 67**  
EN 60 529



Tastsystem nicht fallen lassen.  
*Do not drop the touch probe.*  
Ne pas laisser tomber le palpeur.  
*Non far cadere il tastatore.*  
No dejar caer el palpador.

## Warnings

注意事項

提示

警告

경고



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

注意: 取付け及び試運転は設置現場の安全規則のもとで電子機器および精密機械の専門家により実施するようにしてください。

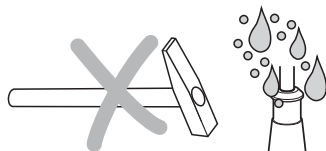
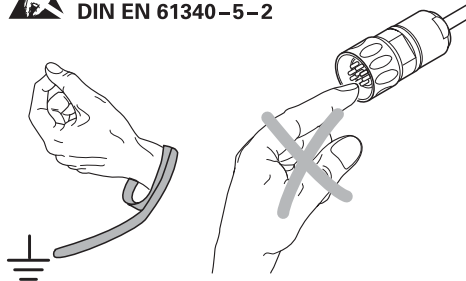
注意: 安装和调试任务只能由电气和精密机械专业技术人员并在符合当地安全法规要求的条件下进行。

附註: 請由電子設備及精密機械的專業人員負責安裝及調機以符合當地安全法規。

유의사항: 설치 및 커미셔닝은 현지 안전 규정에 따라 전기 및 정밀 기계 분야의 전문가가 실시해야 합니다.

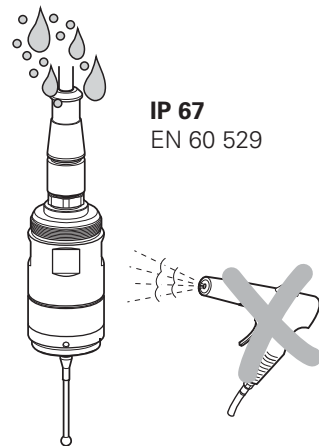
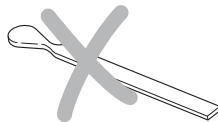


DIN EN 61340-5-1  
DIN EN 61340-5-2



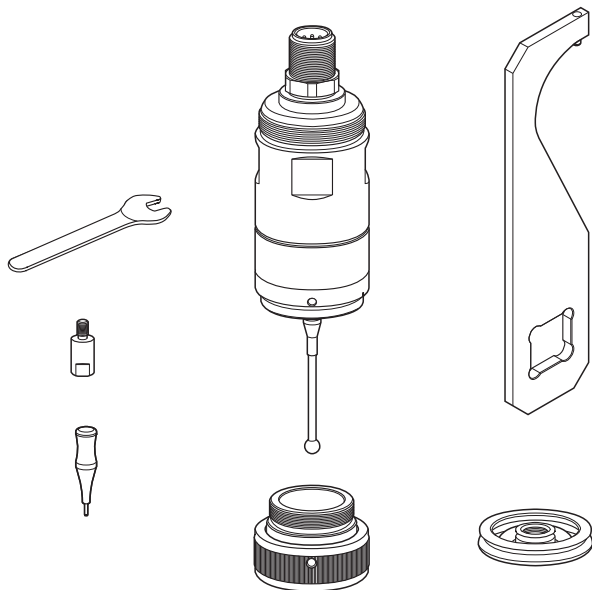
**IP 67**  
EN 60 529

Do not drop the touch probe.  
タッチプローブを落とさないでください。  
请不要使测头跌落。  
探針請勿掉落。  
터치 프루브를 떨어뜨리면 안됩니다.



**Lieferumfang**  
**Items supplied**  
**Objet de la fourniture**  
**Standard di forniture**  
**Suministro**

Inhalt des Lieferumfangs je nach Variante  
*Items supplied depending on the variant*  
Contenu de la fourniture selon la variante  
*Standard di forniture secondo la variante*  
Contenido del suministro en función de la variante





**Items supplied**

梱包品

零部件

供應的項目

제공 품목

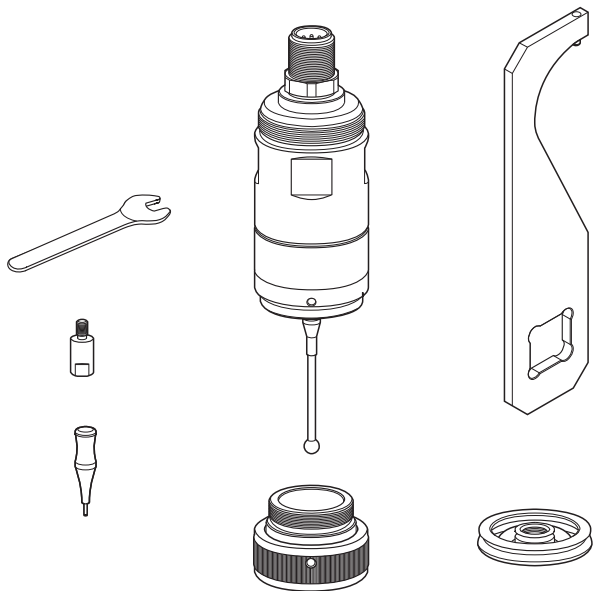
Items supplied depending on the variant

梱包品は製品種類により異なります

供應的部件与具体型号有关

零組件項目因應料號而有不同

제공 품목은 모델에 따라 다릅니다

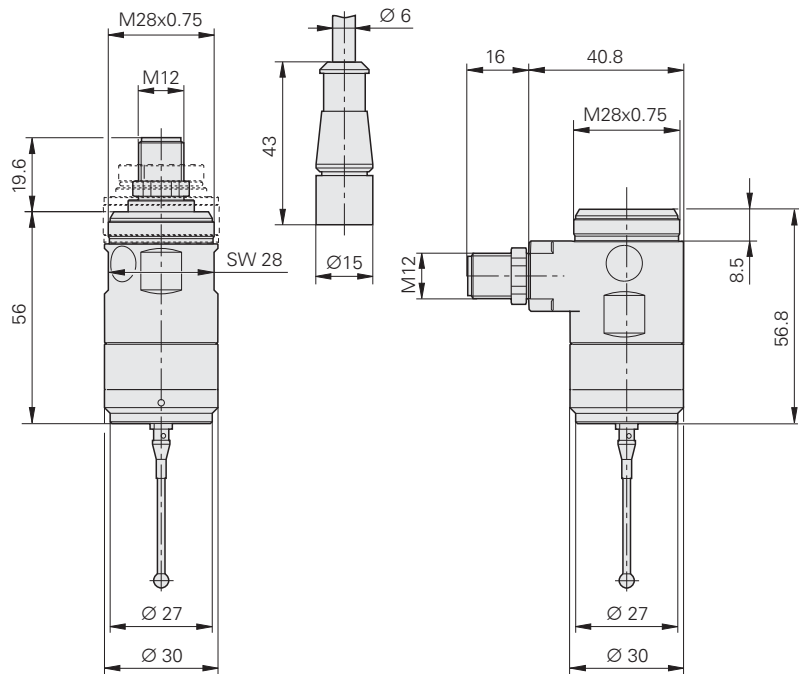


**Abmessungen**  
**Dimensions**  
**Dimensions**  
**Dimensiones**

mm



Tolerancing ISO 8015  
ISO 2768 - m H  
< 6 mm: ±0.2 mm



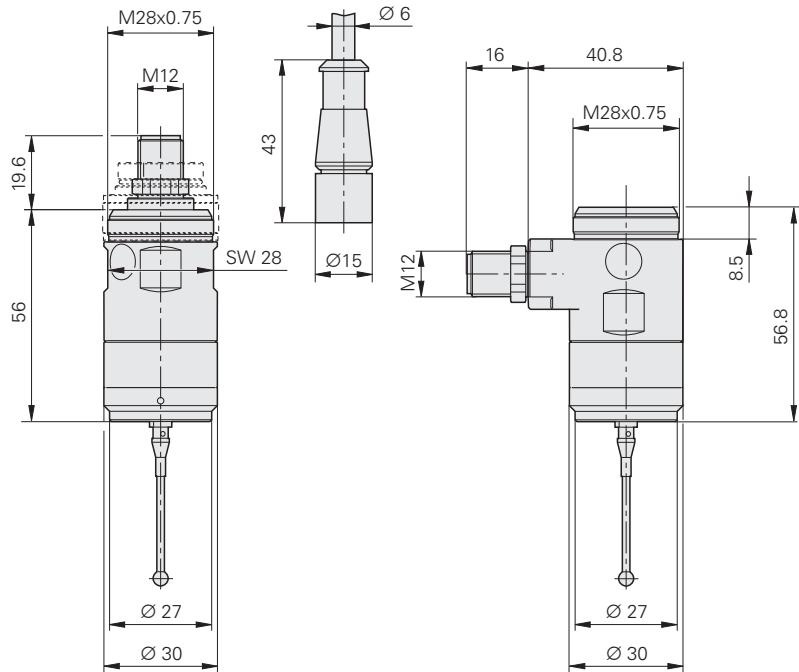
## Dimensions

寸法  
尺寸  
尺寸  
규격

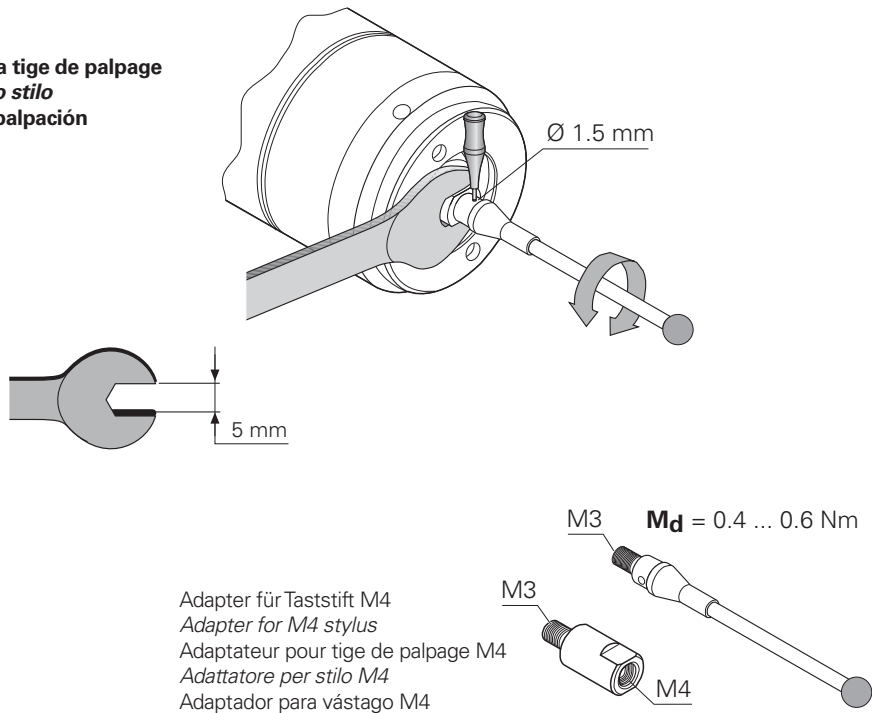
mm



Tolerancing ISO 8015  
ISO 2768 - m H  
< 6 mm: ±0.2 mm



**Taststiftwechsel**  
**Stylus Exchange**  
**Changement de la tige de palp**  
**Sostituzione dello stilo**  
**Cambio vástago palpación**



Adapter für Taststift M4  
Adapter for M4 stylus  
Adaptateur pour tige de palp M4  
Adattatore per stilo M4  
Adaptador para vástago M4

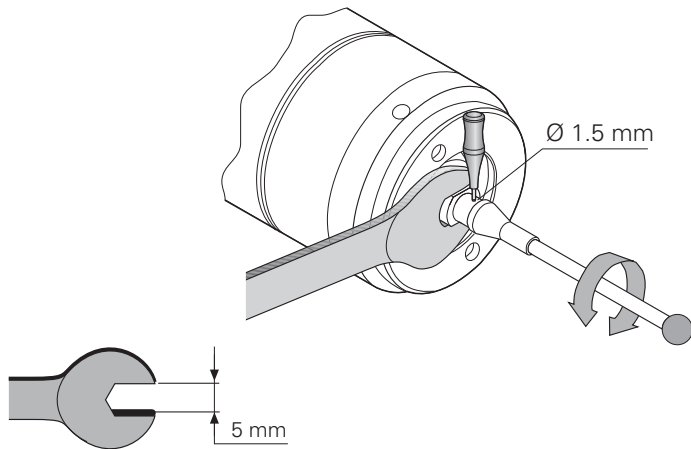
## Stylus Exchange

スタイラスの交換

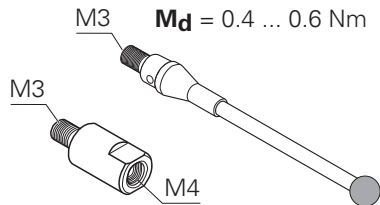
更換測針

探針更換

스타일러스 교체

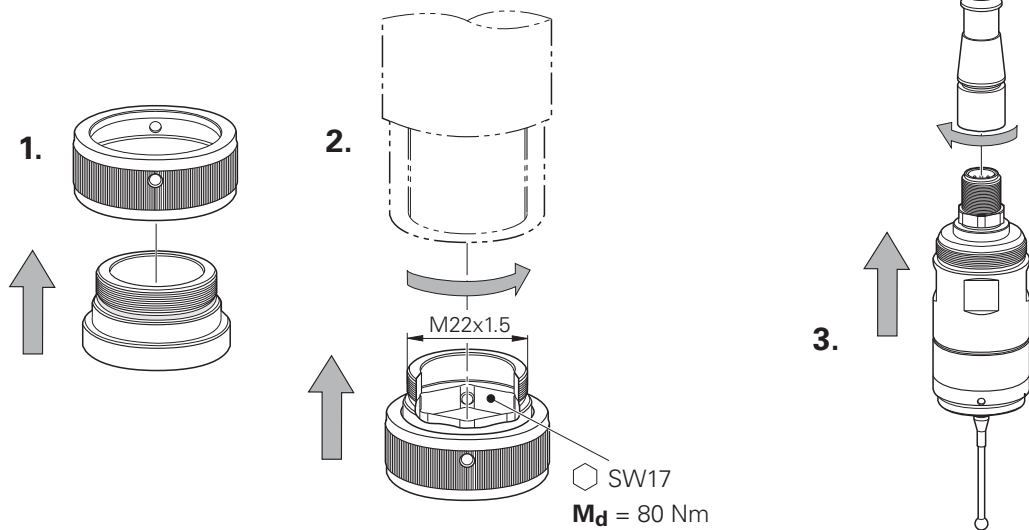


Adapter for M4 stylus  
M4スタイラス用アダプタ  
M4測針适配器  
M4 探針轉接器  
M4 스타일러스용 어댑터

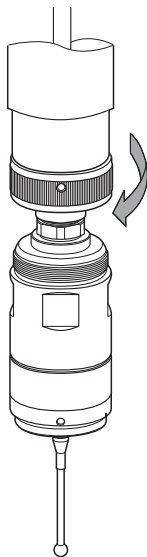


**Montage**  
**Mounting**  
**Montage**  
**Montaggio**  
**Montaje**

Steckverbinder anschrauben  
*Screw on connecting element*  
Visser le connecteur  
*Avvitare il connettore*  
Atornillar el conector

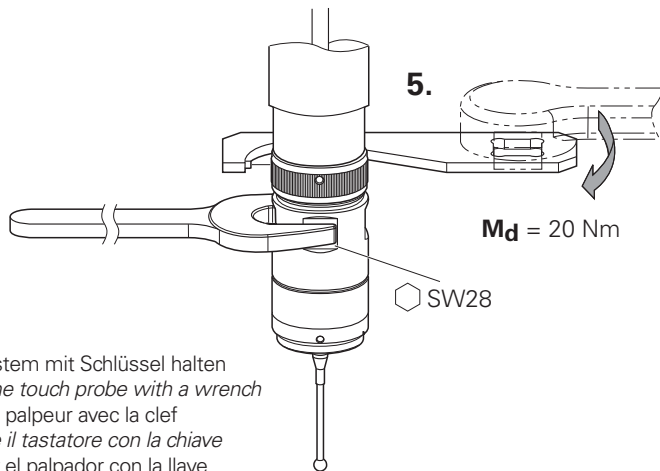


4.



Handfest anziehen  
*Tighten the screw finger-tight*  
Serrer à la main  
*Stringere a mano*  
Apretar fuertemente con la mano

5.



$M_d = 20 \text{ Nm}$

SW28

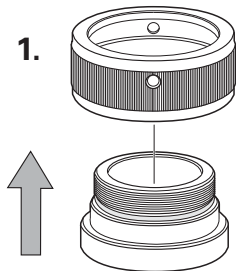
Tastsystem mit Schlüssel halten  
*Hold the touch probe with a wrench*  
Tenir le palpeur avec la clef  
*Fissare il tastatore con la chiave*  
Sujetar el palpador con la llave

## Mounting

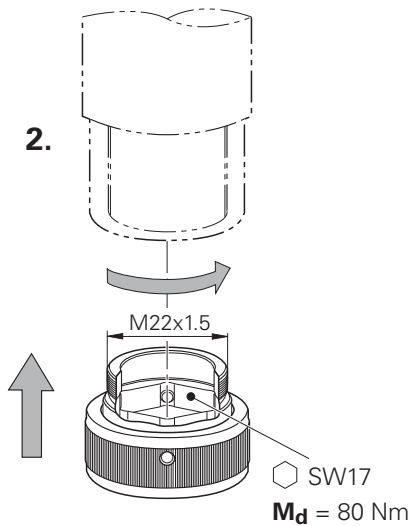
取付け  
安裝  
安裝  
마운팅

Screw on connecting element  
接続部品を締付けてください。  
拧入连接件  
鎖上連結元件  
연결부를 나사로 고정시킵니다.

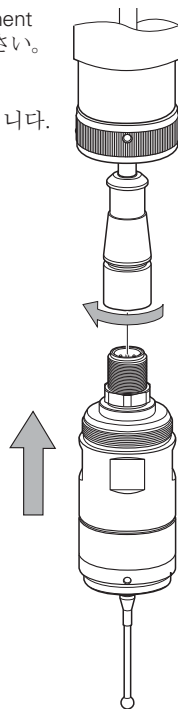
1.



2.

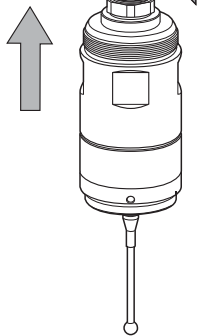


3.



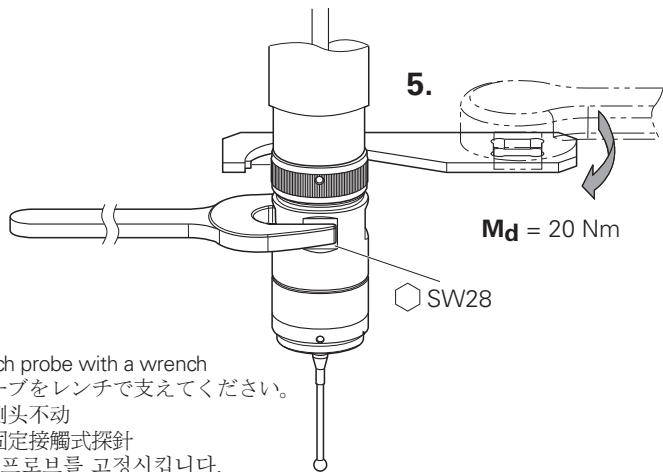


4.



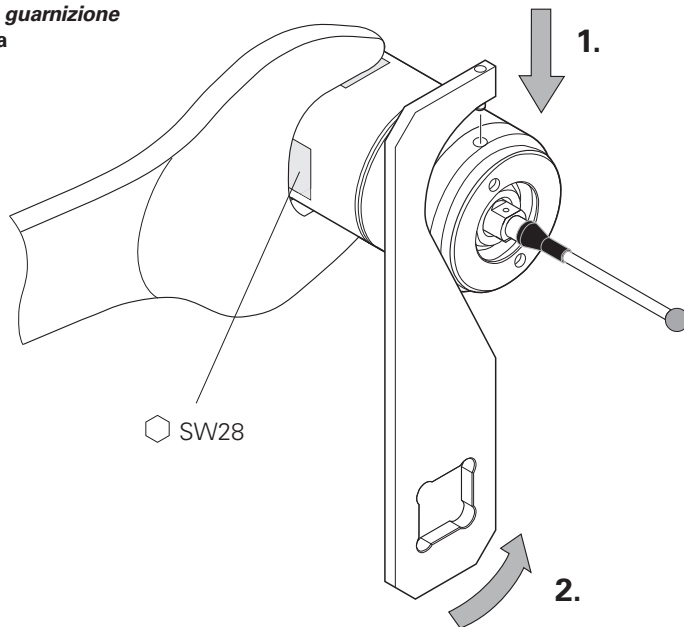
Tighten the screw fingertight  
ネジを手締めしてください。  
用手紧固  
以手指鎖緊螺絲  
나사를 손으로 단단히 조입니다.

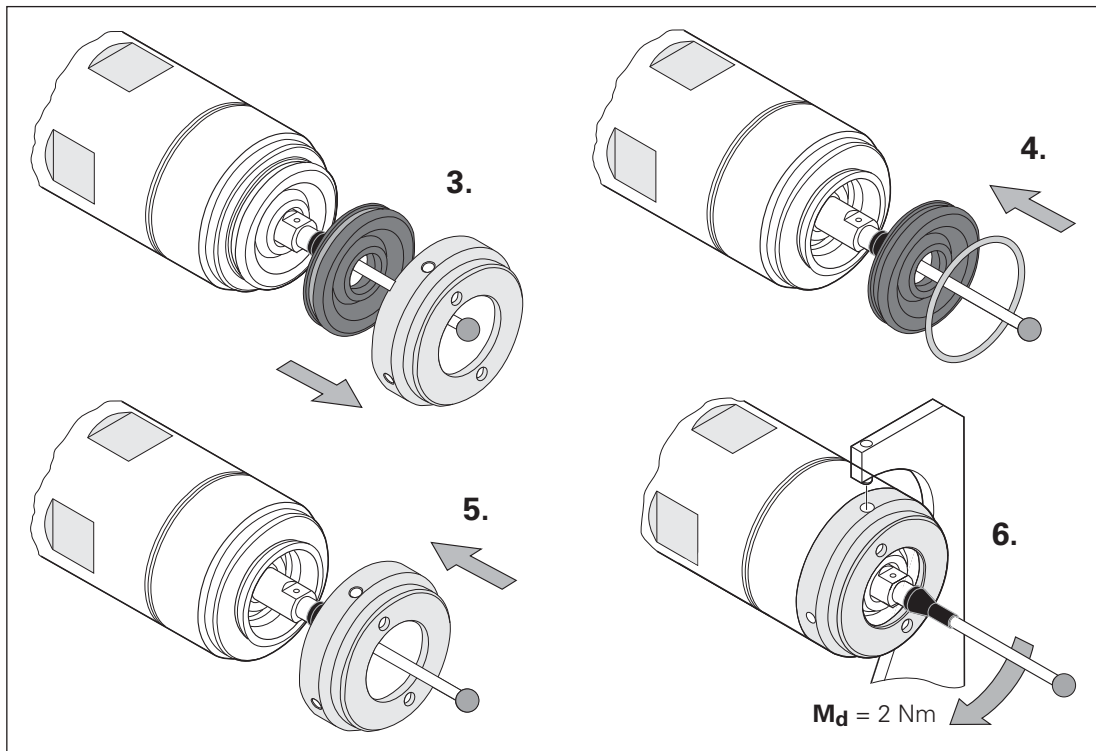
5.



Hold the touch probe with a wrench  
タッチプローブをレンチで支えてください。  
用扳手保持测头不动  
以開口扳手固定接觸式探針  
렌치로 터치 프로브를 고정시킵니다.

**Wechseln der Dichtung**  
**Replacing the Seal**  
**Changement du joint**  
**Sostituzione della guarnizione**  
**Cambio de la junta**





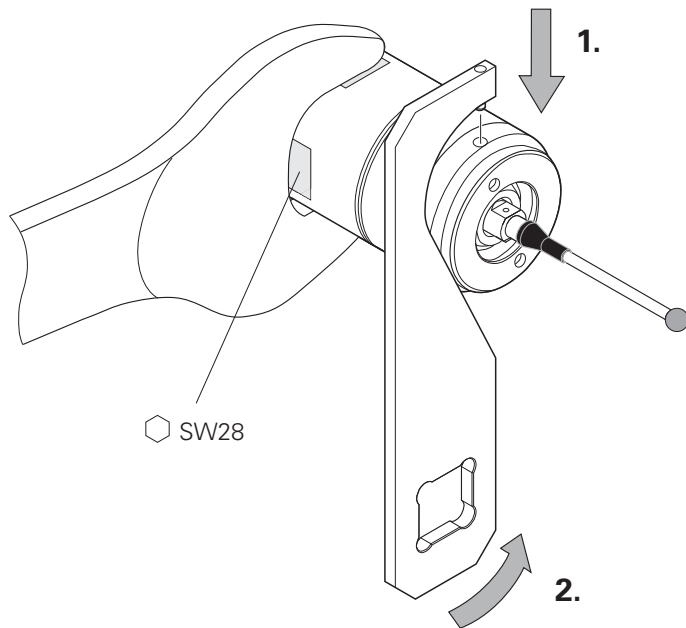
## Replacing the Seal

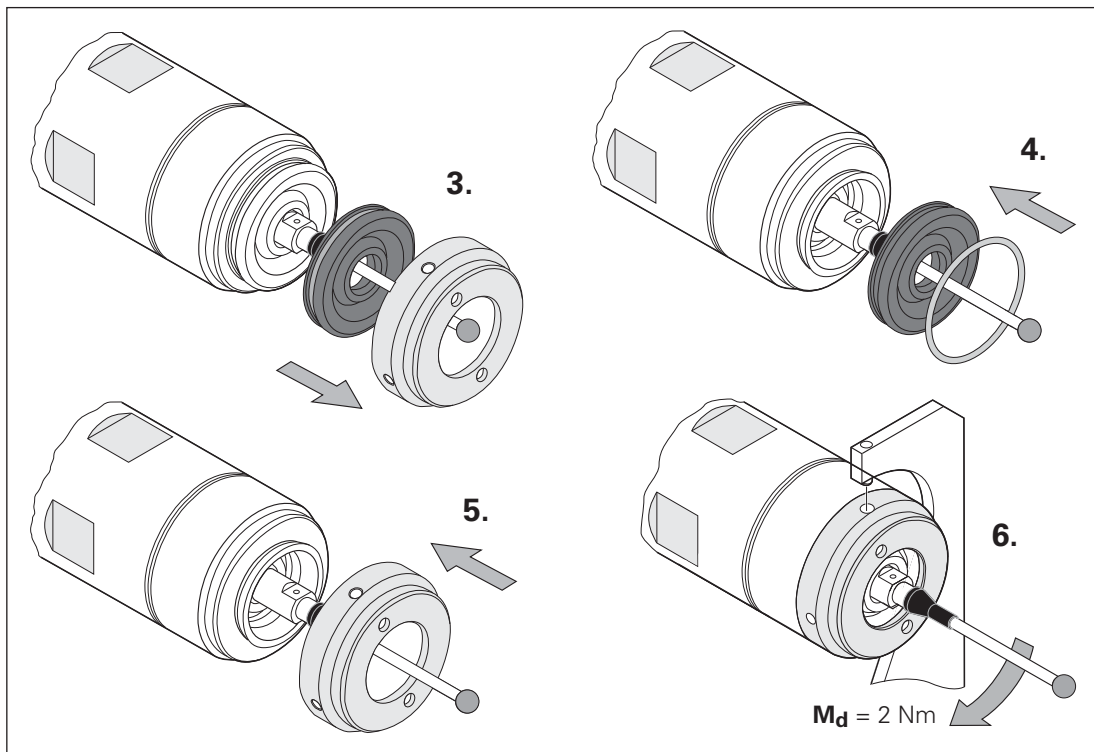
シールの交換

更換密封圈

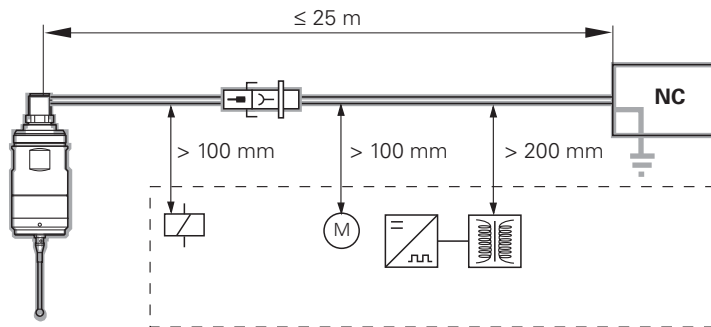
替換密封環

씰 교환



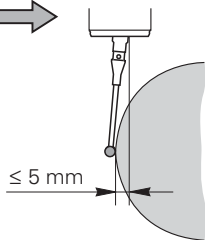


**Technische Kennwerte**  
**Specifications**  
**Caractéristiques techniques**  
**Dati tecnici**  
**Características técnicas**

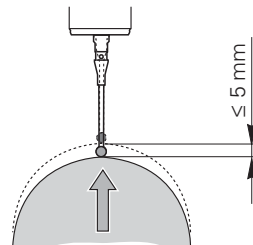


TS 248:  $F \approx 0.5 \text{ N}$   
 TS 249:  $F \approx 1 \text{ N}$

$v = \text{max. } 3 \text{ m/min}$  →

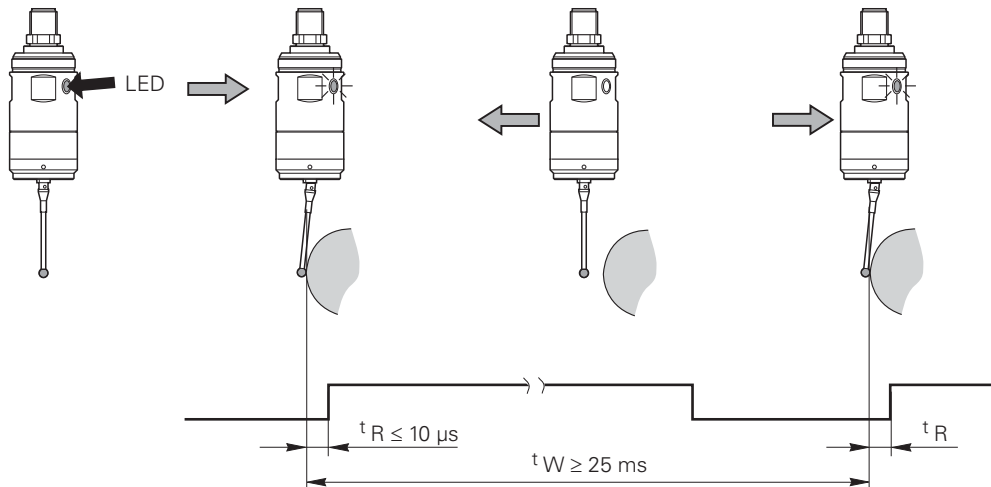


TS 248:  $F \approx 3.5 \text{ N}$   
 TS 249:  $F \approx 7 \text{ N}$



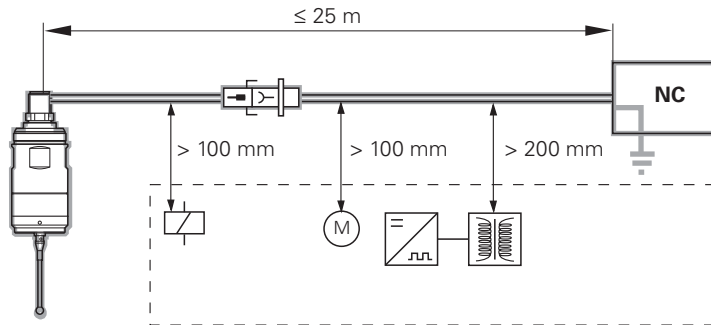
$2 \sigma \leq 1.0 \mu\text{m}$ ,  $v = \text{max. } 1 \text{ m/min}$ .

LED-Anzeige Variantenabhängig  
*LED display depends on variant*  
Tenir le palpeur avec la clef  
*Fissare il tastatore con la chiave*  
Sujetar el palpador con la llave



**Specifications**

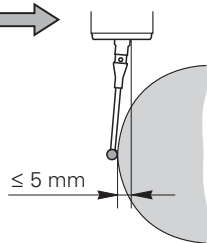
仕様  
 技术参数  
 規格  
 사양



TS 248:  $F \approx 0.5 \text{ N}$

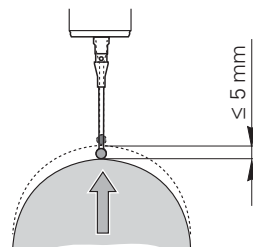
TS 249:  $F \approx 1 \text{ N}$

$v = \text{max. } 3 \text{ m/min}$  →



TS 248:  $F \approx 3.5 \text{ N}$

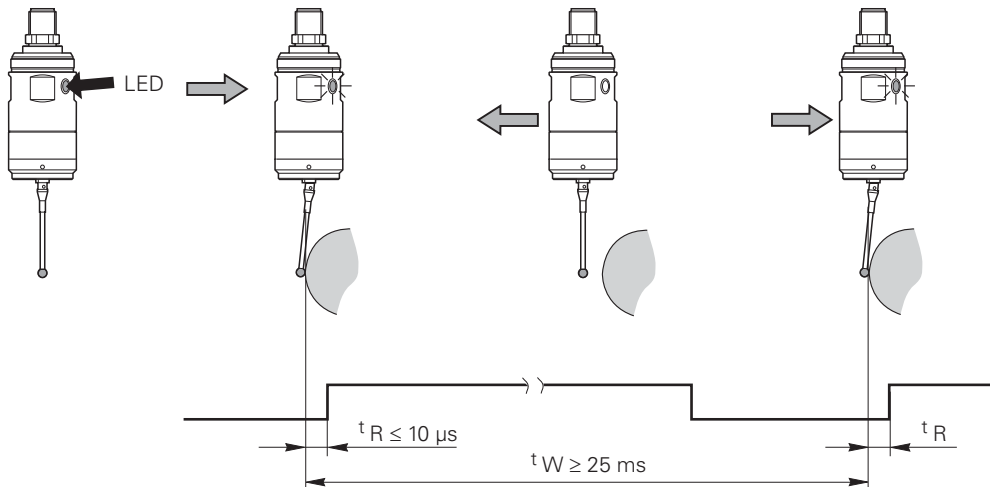
TS 249:  $F \approx 7 \text{ N}$



$2 \sigma \leq 1.0 \mu\text{m}$ ,  $v = \text{max. } 1 \text{ m/min}$ .



LED display depends on variant  
LED表示は製品により異なります。  
LED显示与具体型号有关  
LED 顯示因應版本而有不同  
LED 표시는 모델에 따라 다릅니다.



## Elektrische Kennwerte

### Electrical Data

### Caractéristiques électriques

### Dati elettrici

### Catacterísticas eléctricas

**$U_P = 15...30V$**

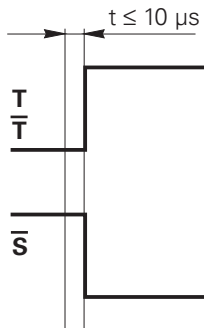
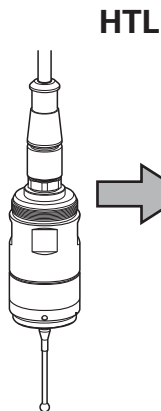
am Gerät  
*at encoder*  
sur l'appareil  
*integrato*  
en el aparato

$I_{max.} 100\text{ mA}$

ohne Last  
*Without load*  
sans charge  
*senza carico*  
sin carga

EN 50 178

PELV  $\neq$  EN 60204-1



**$T, \bar{T}$**  = potentialfreies Schaltsignal  
*Floating trigger signal*  
Signal de commutation libre de potentiel  
*Segnale di commutazione a potenziale zero*  
Señal de conexión

**$\bar{S}$**  = Schaltsignal  
*Trigger signal*  
Signal de commutation  
*Segnale di commutazione*  
Señal de conexión

## Electrical Data

電気仕様データ

电气参数

電氣資料

전기 데이터

$U_p = 15...30V$

at encoder

タッチプローブでの電圧

编码器端

探針端

엔코더

$I_{max.} 100\text{ mA}$

Without load

負荷なし

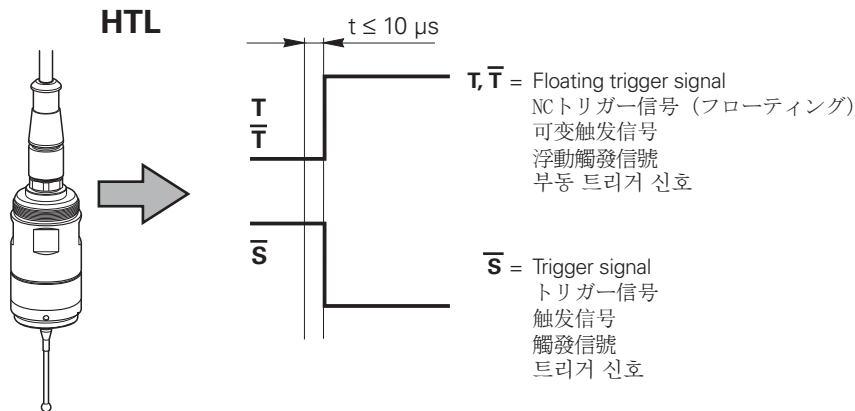
无负载

無負載

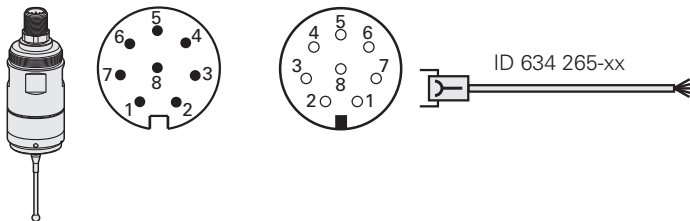
부하 제외


EN 50 178

PELV  $\leq$  EN 60204-1



**Anschlussbelegung**  
**Pin Layout**  
**Raccordements**  
**Piedinatura**  
**Distribución del conector**



	2	7	3	4	1	5	6	8
	Up	0V	S	$\overline{S}$	B	Trigger NO	Trigger NC	Trigger 0V
	BU	VT	GY	PK	WH	WHGN	YE	BNGN

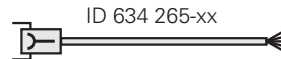
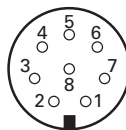
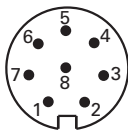
Kabelschirm mit Gehäuse verbunden  
*Cable shield connected to housing*  
 Blindage du câble relié au boîtier  
*Collegare lo schermo del cavo alla carcassa*  
 Pantalla del cable conectada a carcasa


**B =** Bereitschaft  
*Ready signal*  
 En service  
*Segnale di pronto*  
 Preparación

**Trigger NO** = normally open  
**Trigger NC** = normally closed

## Pin Layout

ピン配列  
针脚编号  
接脚配置  
핀 레이아웃



	2	7	3	4	1	5	6	8
	Up	0V	S	$\bar{S}$	B	Trigger NO	Trigger NC	Trigger 0V
	BU	VT	GY	PK	WH	WHGN	YE	BNGN

Cable shield connected to housing  
シールドはハウジングへ  
电缆屏蔽层接外壳  
電纜隔離層連結於外殼  
하우징에 연결된 케이블 실드

**B** = Ready signal  
レディ信号  
就绪信号  
備妥信號  
준비 신호

**Trigger NO** = normally open  
**Trigger NC** = normally closed





# HEIDENHAIN

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