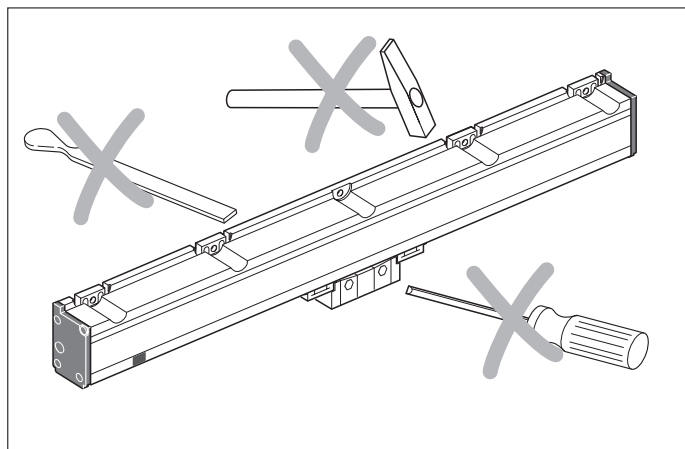
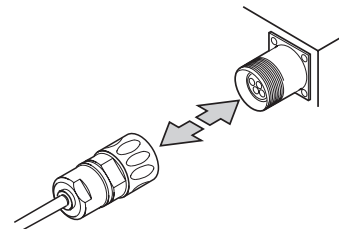
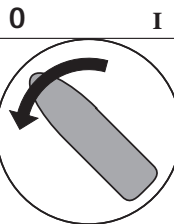




**HEIDENHAIN**

Montageanleitung  
*Mounting Instructions*  
Instructions de montage  
*Istruzioni di montaggio*  
Instrucciones de montaje  
**LC 191 M**  
MITSUBISHI  
High Speed Serial Interface

 DIN EN 100 015 - 1  
CECC 00015 - 1





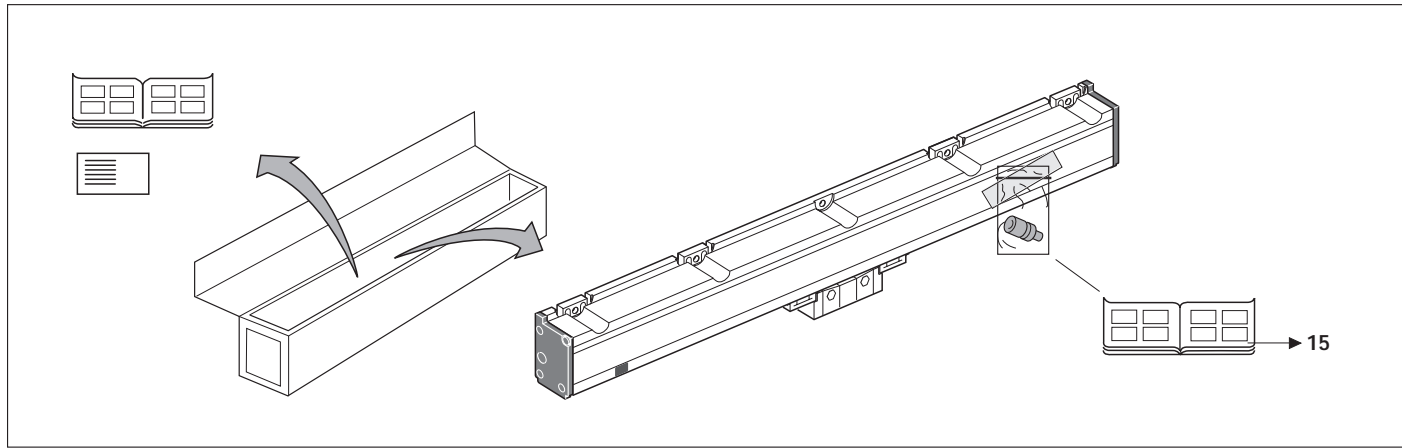
Die Inbetriebnahme des LC 191 M erfordert eine richtige Parametrierung der MITSUBISHI-Steuerung (Gefahr von Sach- und Personenschäden). Zur richtigen Parametrierung nehmen Sie bitte Kontakt zum Hersteller der Maschine auf.

*The MITSUBISHI control parameters for the LC 191 M must be correctly configured for proper function. Improper configuration may result in damage to the equipment or even personal injury. Please contact the machine manufacture for the correct parameter configuration.*

La mise en route du LC 191 M nécessite un paramétrage correct de la commande MITSUBISHI (risque matériels et corporels). Pour effectuer le paramétrage correctement, prenez S.V.P. contact avec le constructeur de la machine.

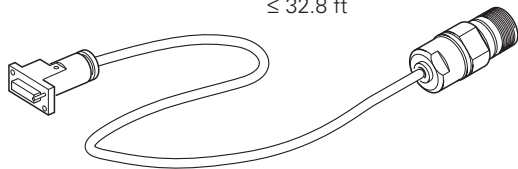
*La messa in funzione della LC 191 M richiede una corretta parametrizzazione del controllo MITSUBISHI (rischio di danni alle cose e alle persone). Per una corretta parametrizzazione mettersi in contatto con il costruttore della macchina.*

La puesta en marcha de la LC 191 M requiere una parametrización correcta del sistema de medida MITSUBISHI (peligro de daños en cosas y personas). Para la parametrización correcta contacten con el constructor de la máquina.

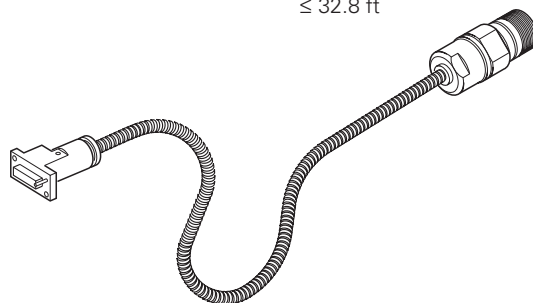


Separat bestellen · Order separately · Commander séparément · Ordinare separatamente · Pedir por separado

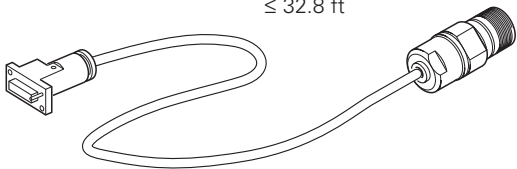
Id.-Nr. 331 562-xx ≤ 10 m  
≤ 32.8 ft



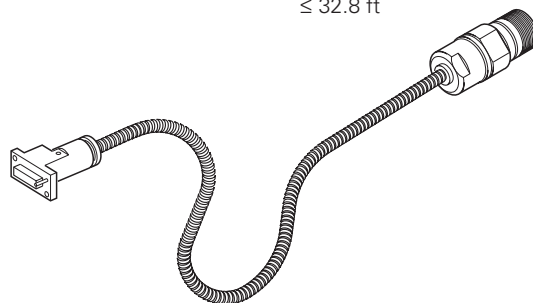
Id.-Nr. 331 697-xx ≤ 10 m  
≤ 32.8 ft

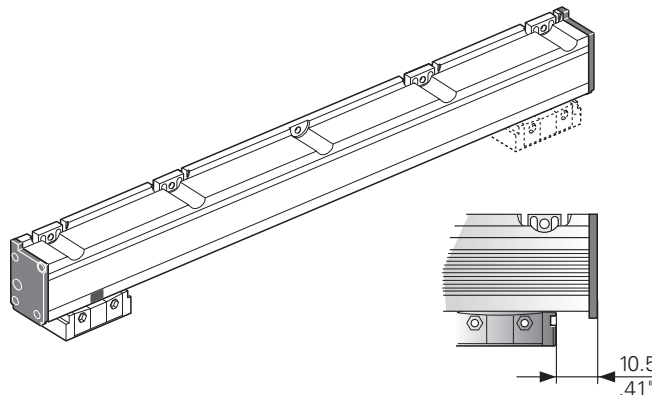
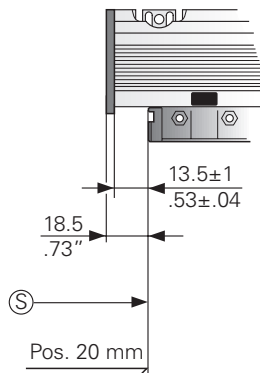


Id.-Nr. 331 562-xx ≤ 10 m  
≤ 32.8 ft



Id.-Nr. 331 697-xx ≤ 10 m  
≤ 32.8 ft





Ⓢ = Am Beginn der Meßlänge wird der Positionswert 200 000 ( $200\,000 \cdot 0,1 \mu\text{m} = 20 \text{ mm}$ ) übertragen.  
Der Beginn der Meßlänge (Position 200 000) ist am Maßstabgehäuse markiert (siehe Skizze).

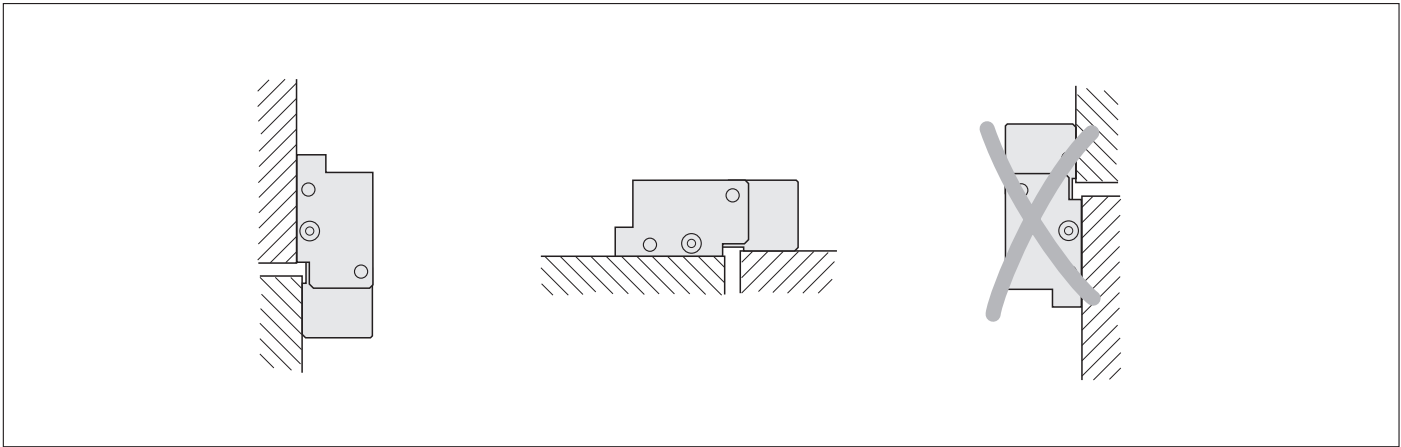
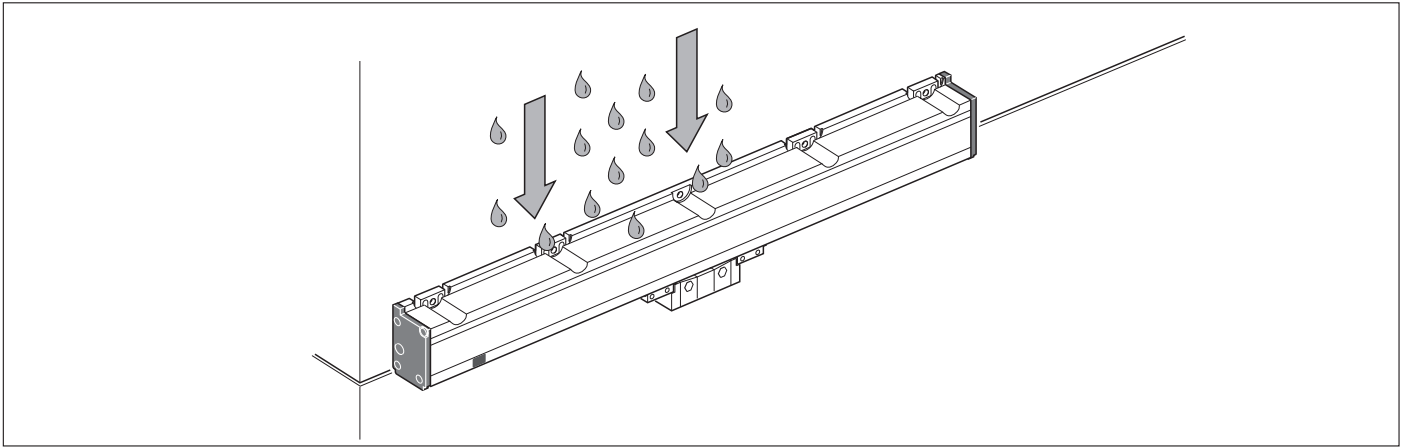
*At the beginning of the measuring length the position value 200 000 ( $200\,000 \times 0.1 \mu\text{m} = 20 \text{ mm}$ ) is transmitted interface.*

*The beginning of the measuring length (position 200 000) is marked on the encoder housing (see drawing).*

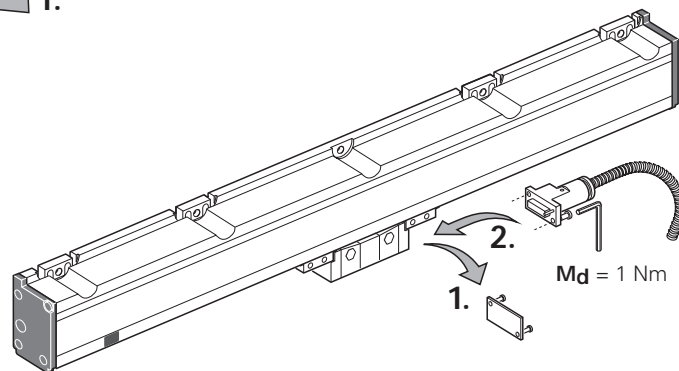
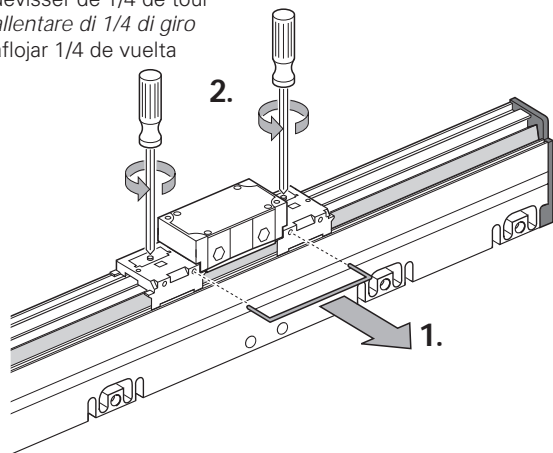
Au debut de la longueur de mesure, la valeur de position 200 000 ( $200\,000 \times 0,1 \mu\text{m} = 20 \text{ mm}$ ) est transmise.  
Le début de la longueur de mesure (position 200 000) est marqué sur le carter de la règle (cf. schéma).

*All'inizio della corsa il valore di posizione 200 000 viene trasmesso tramite ( $200\,000 \times 0,1 \mu\text{m} = 20 \text{ mm}$ ).  
L'inizio della corsa utile (Posizione 200 000) è segnata sulla carcassa della riga (vedi disegno).*

Al comienzo del recorrido de medida se transmite la cota 200 000 ( $200\,000 \times 0,1 \mu\text{m} = 20 \text{ mm}$ ) a través.  
El comienzo del recorrido de medida (posición 200 000) está marcado en la carcasa de la regla (véase dibujo).



1/4 Umdrehung lösen  
Losen by 1/4 revolution  
dévisser de 1/4 de tour  
allentare di 1/4 di giro  
aflojar 1/4 de vuelta





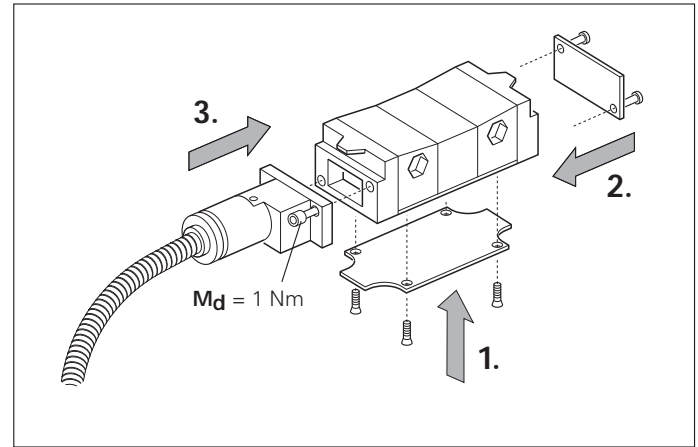
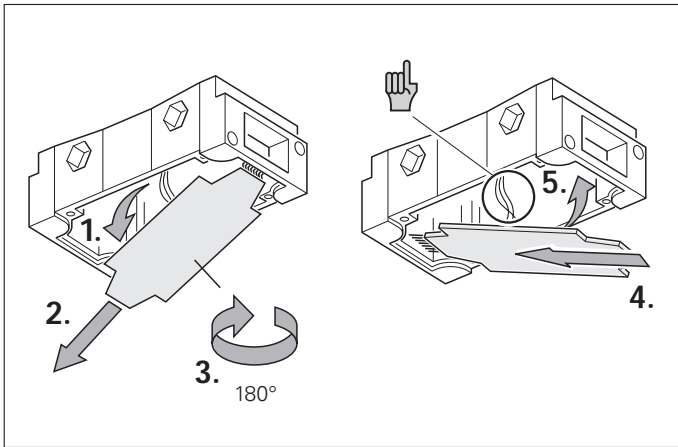
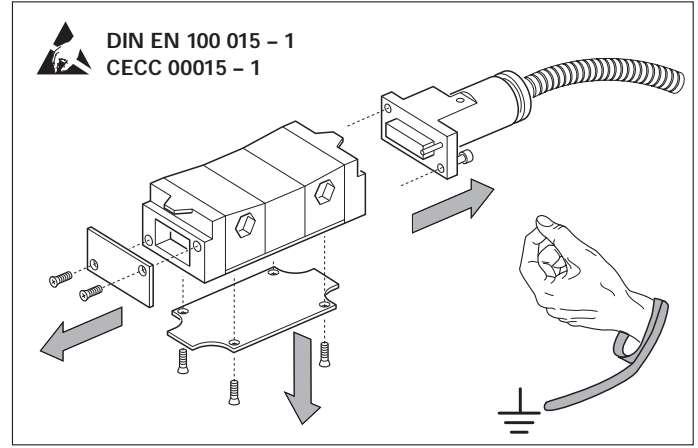
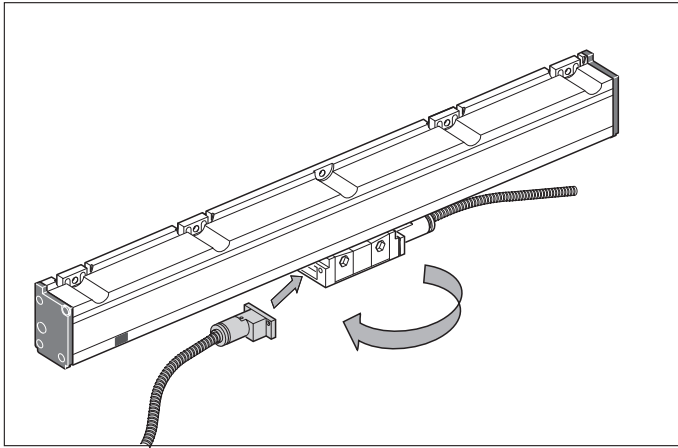
Kabelausgang  
verlegen

· Changing  
the cable outlet

· Poser  
la sortie du câble

· Configurazione  
dell'uscita del cavo

· Colocar  
cable de salida



# Abmessungen · Dimensions · Dimensions · Dimensioni · Dimensiones

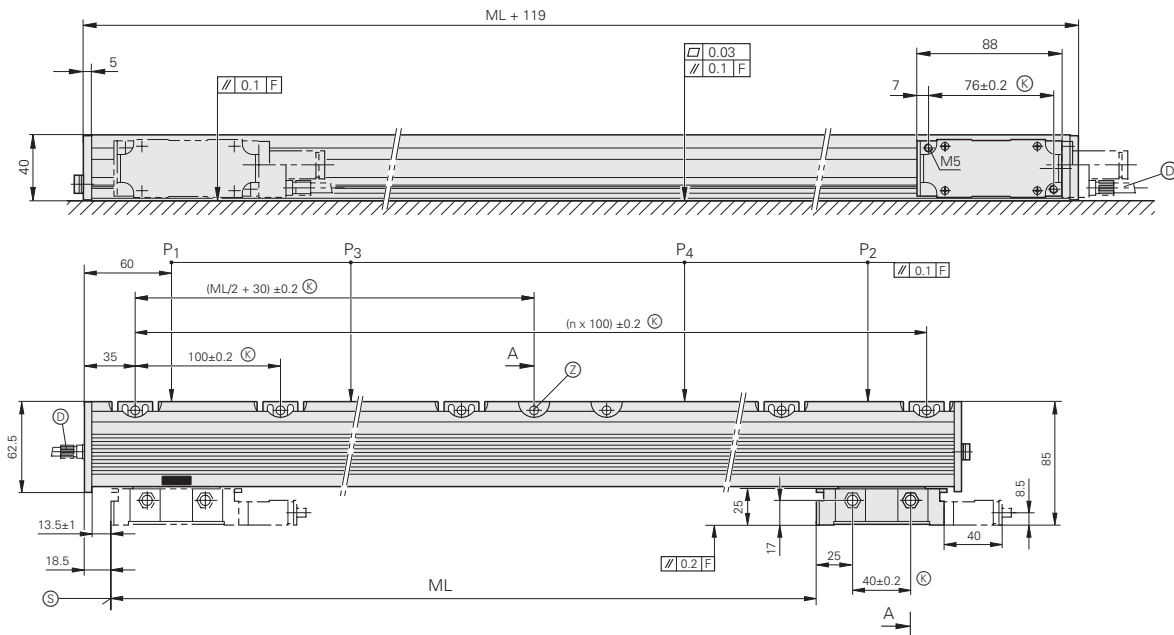
mm/inches



DIN ISO 8015

ISO 2768 - m H

Ⓢ = Beginn der Meßlänge ML bei Position 20 mm  
*Begin. of meas. length ML at position 20 mm*  
 début de la longueur de mesure ML à la position 20 mm  
 inizio della misura ML dalla posizione 20 mm  
 comienzo del recorrido de medición ML con cota 20 mm



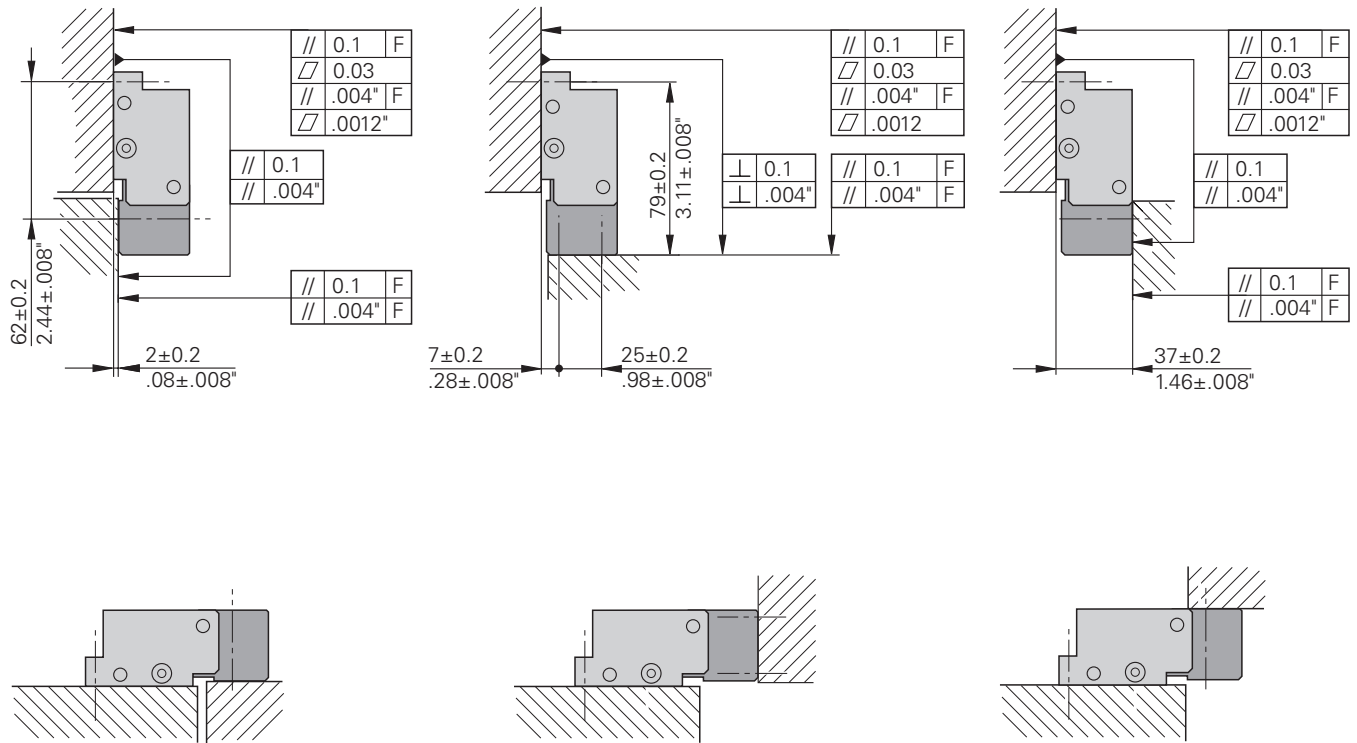
P = Meßpunkte zum Ausrichten  
*Gauging points for alignment*  
 points de mesure pour dé gachissage  
 punti di misura per allineamento  
 puntos medición alineamiento

Ⓚ = Kundenseitige Anschlußmaße  
*Required mating dimensions*  
 conditions requises pour le montage  
 dimensioni di collegamento lato cliente  
 cotas de montaje requeridas

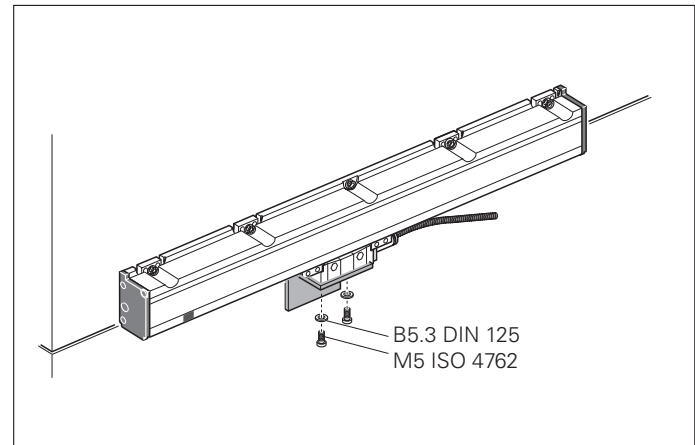
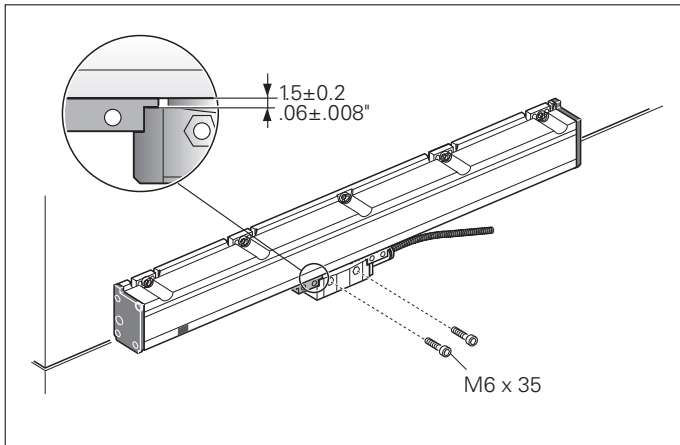
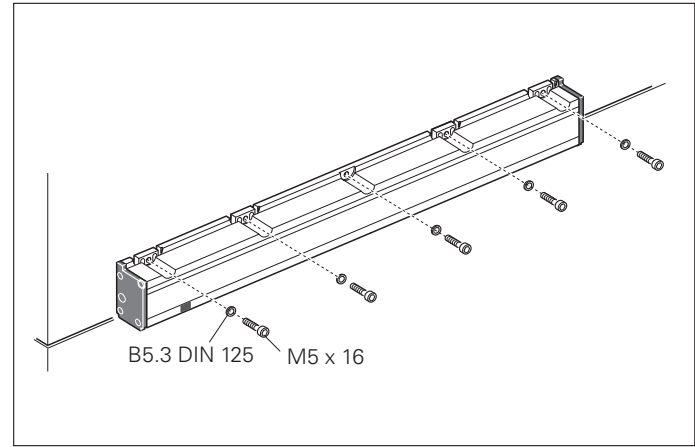
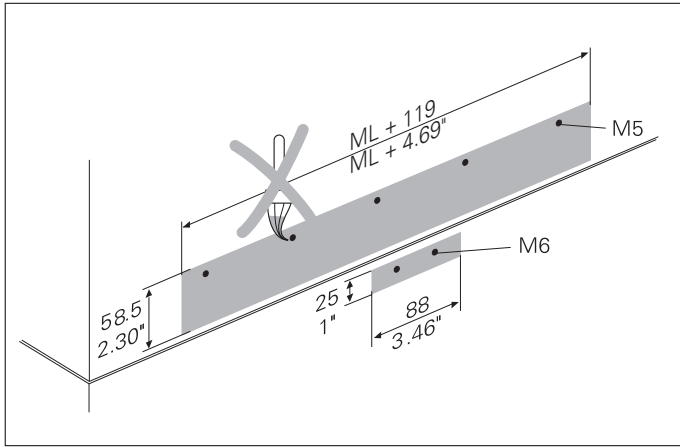
Ⓛ = Druckluftanschluß  
*Compressed air inlet*  
 raccordement d'air comprimé  
 ingresso per pressurizzazione  
 conexión de aire comprimido

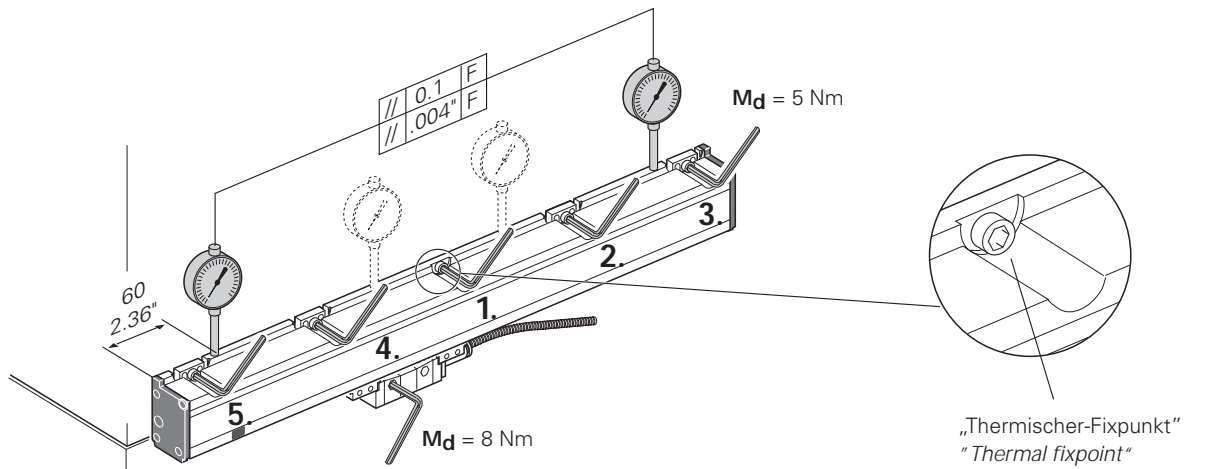
F = Maschinenführung  
*Machine guideway*  
 guidage de la machine  
 guida della macchina  
 guía de la máquina

Anbau · Mounting · Montage · Montaggio · Instalación



Anbau · Mounting · Montage · Montaggio · Instalación





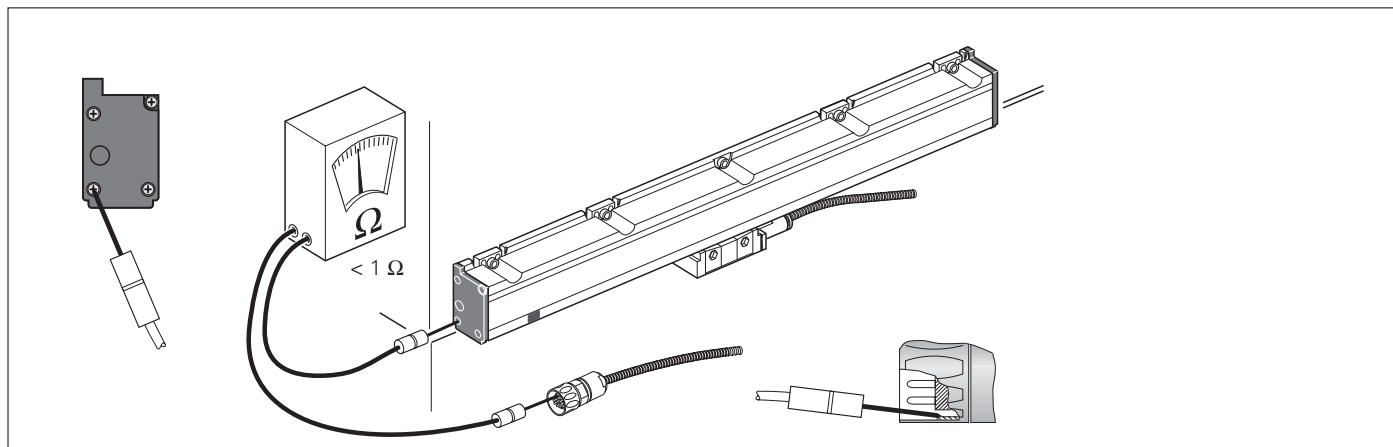
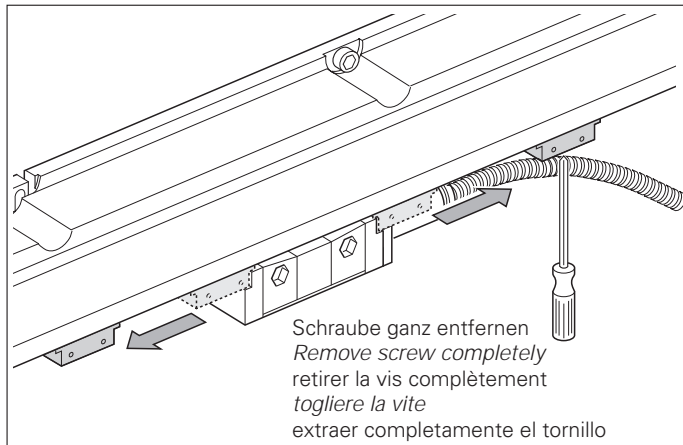
Befestigungsreihenfolge beachten  
 Mittlere Befestigung zwingend notwendig („Thermischer Fixpunkt“)

*Use the correct sequence when fastening  
 Mid-point must be fastened („thermal fixpoint“)*

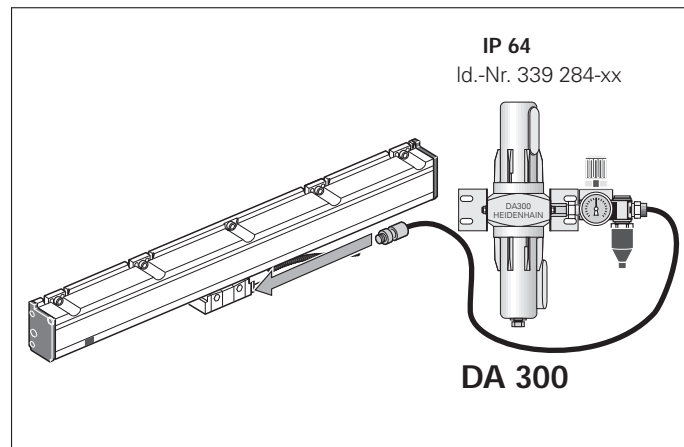
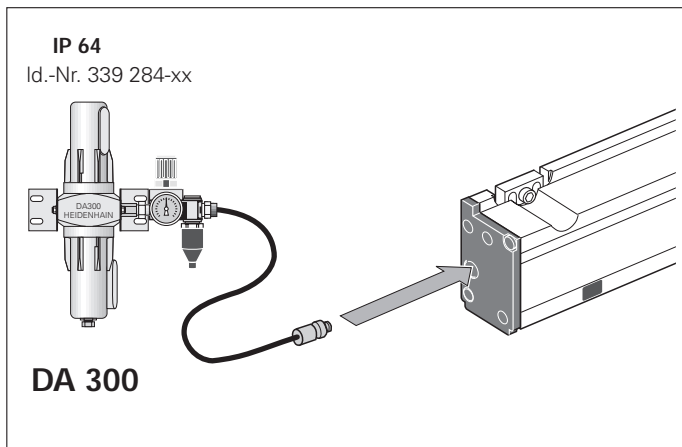
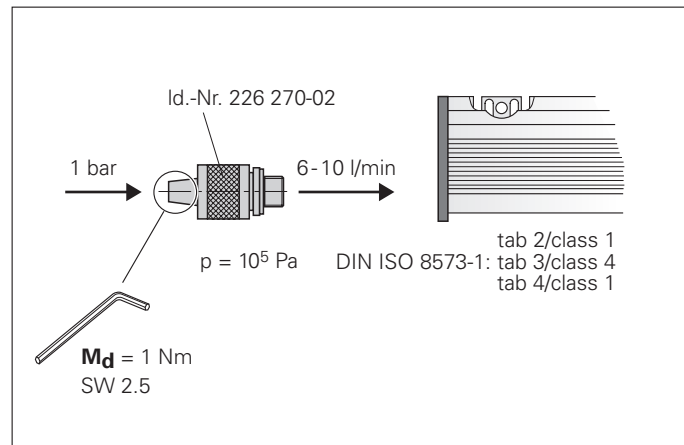
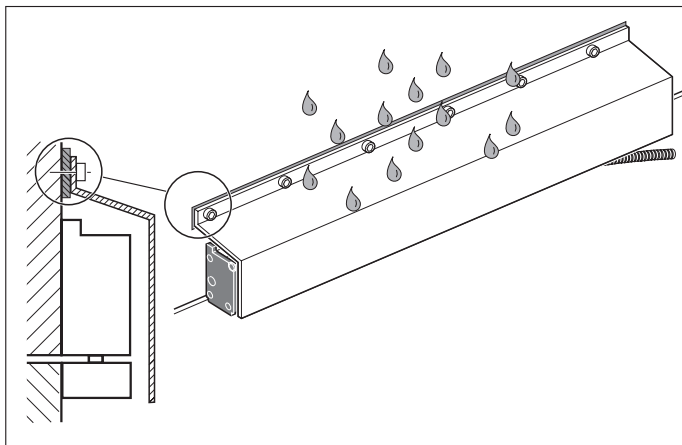
Respecter l'ordre chronologique de la fixation  
 Fixation centrale impérative („point fixe thermique“)

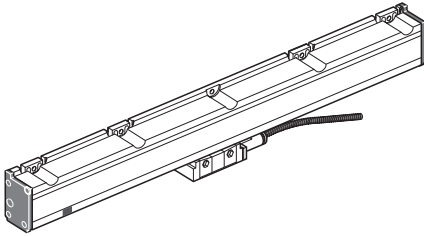
*Attenzione alla sequenza per il fissaggio  
 il punto di fissaggio centrale è obbligatorio („punto di fissaggio termico“)*

Tener en cuenta la secuencia de sujeción  
 Sujeción central necesariamente obligatoria („Punto de fijación térmico“)



Schutzmaßnahmen · Protective measures · Mesures préventives · Precauzioni · Medidas de protección

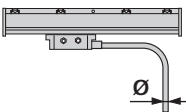

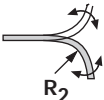



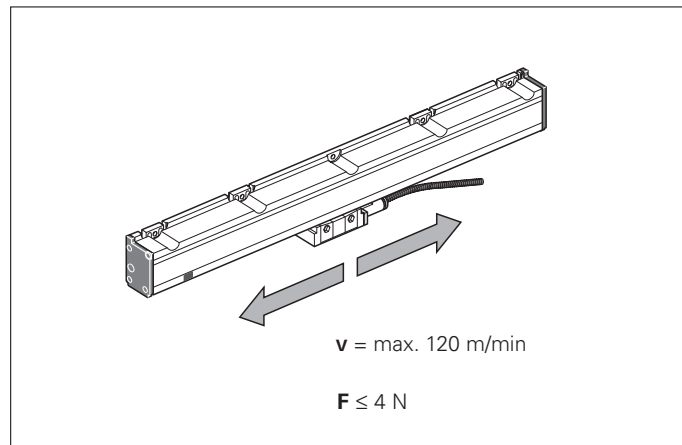



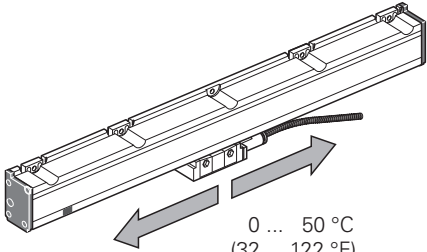
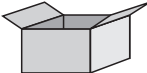
DIN IEC 68-2-6 (55 ... 2000 Hz) : max. 150 m/s<sup>2</sup>  
DIN IEC 68-2-27 (11 ms) : max. 300 m/s<sup>2</sup>

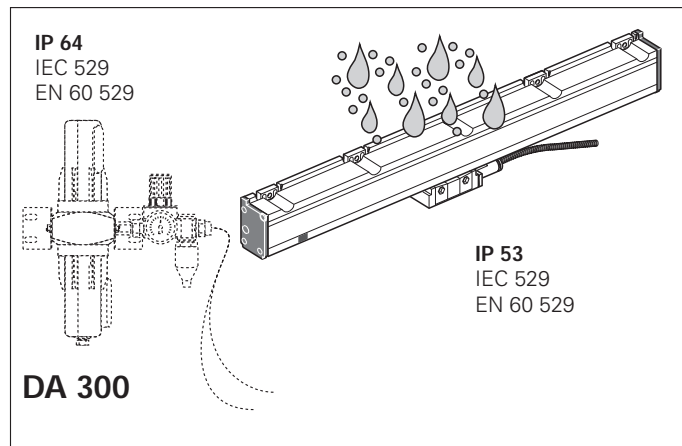


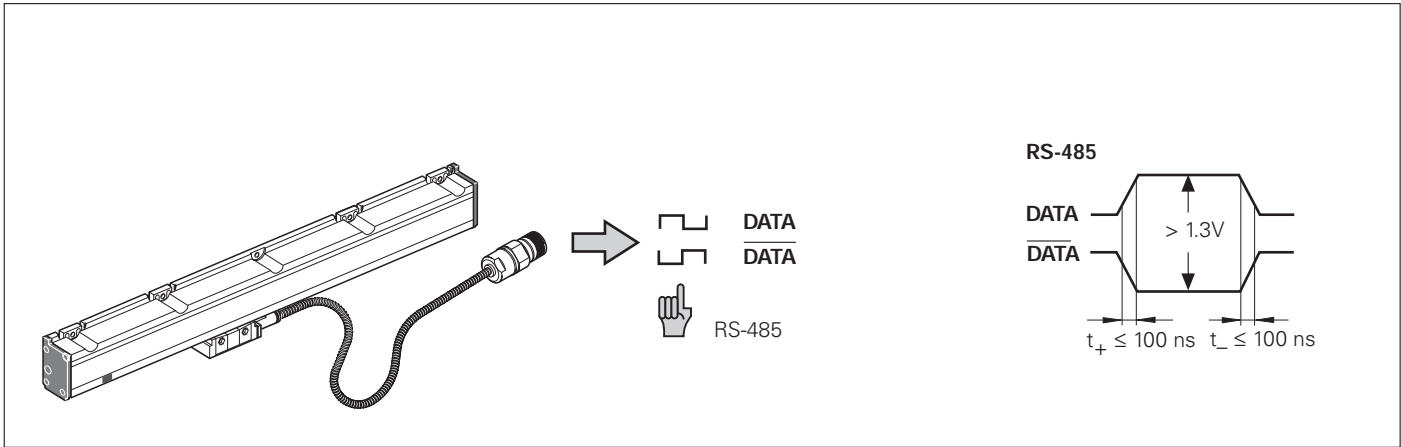
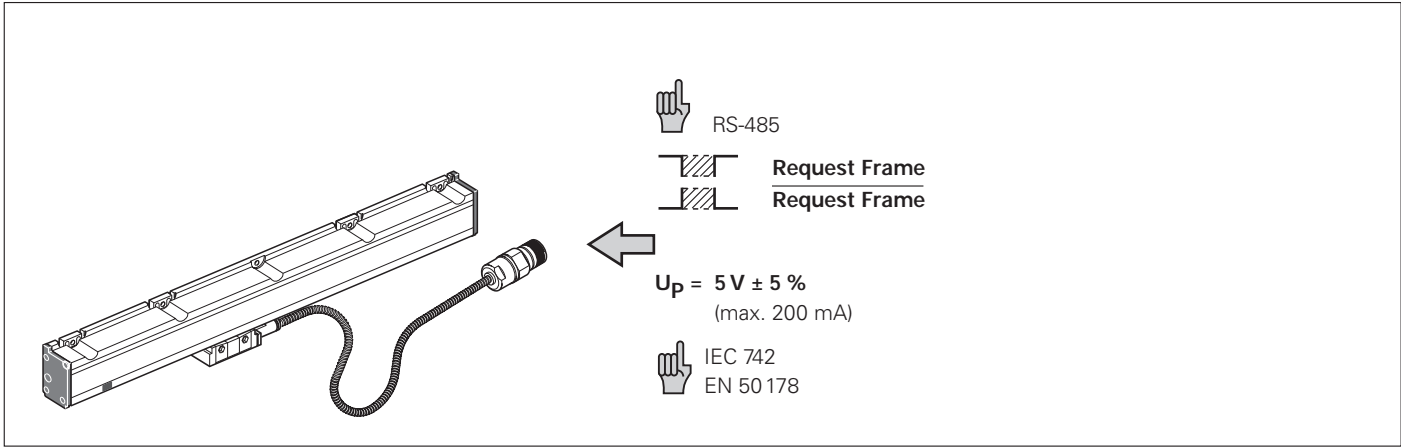
Technische Kennwerte · Specifications · Caractéristiques techniques · Dati tecnici · Datos técnicos

		
Ø 6 mm DIA .236 in.	$R_1 \geq 20 \text{ mm}$ $R_1 \geq .8 \text{ in.}$	$R_2 \geq 75 \text{ mm}$ $R_2 \geq 3 \text{ in.}$
Ø 10 mm DIA .394 in.	$R_1 \geq 35 \text{ mm}$ $R_1 \geq 1.4 \text{ in.}$	$R_2 \geq 75 \text{ mm}$ $R_2 \geq 3 \text{ in.}$
 Ø 8 mm DIA .315 in.	$R_1 \geq 40 \text{ mm}$ $R_1 \geq 1.6 \text{ in.}$	$R_2 \geq 100 \text{ mm}$ $R_2 \geq 4 \text{ in.}$

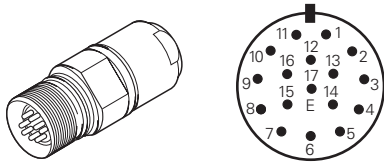


 <p>°C (°F)</p>	 <p>0 ... 50 °C (32 ... 122 °F)</p>
	 <p>-20 ... 70 °C (- 4 ... 158 °F)</p>





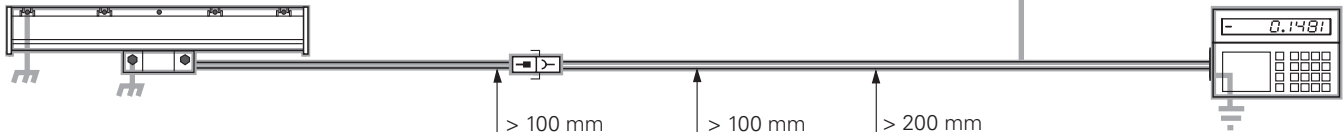
Elektrischer Anschluß · *Electrical connection* · Raccordement électrique · *Collegamento elettrico* · Conexión eléctrica



1) Außenschirm Gehäuse  
*External shield on housing*  
 blindage externe sur boîtier  
*schermo esterno sulla carcassa*  
 blindaje externo a carcasa

14	17	8	9	7	10	1)	1	4
DATA	DATA	Request Frame	Request Frame	5 V Up	0 V U <sub>N</sub>		5 V sensor	0 V sensor
grau gray gris grigio gris	rosa pink rose rosa rosa	violett violet violet viola violeta	gelb yellow jaune giallo amarillo	braun/grün brown/green brun/vert marrone/verde marron/verde	weiß/grün white/green blanc/vert bianco/verde blanco/verde		blau blue bleu azzurro azul	weiß white blanc bianco blanco

IEC 742 EN 50 178



Störquellen  
*Noise sources*  
 sources parasites  
*origine del disturbo*  
 fuentes de interferencias

# HEIDENHAIN

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FAX (0 86 69) 50 61

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FAX (0 86 69) 98 99

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<http://www.heidenhain.de>

