HEIDENHAIN

SALES & SERVICE:

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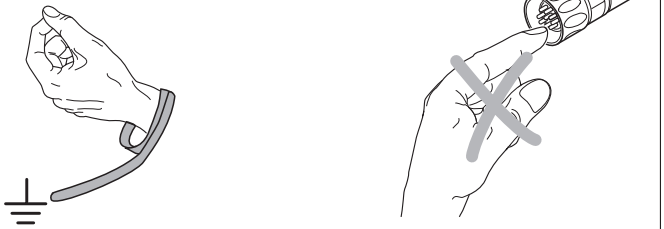
Chino CA 91710
909-614-4522
sales@atechauthority.com

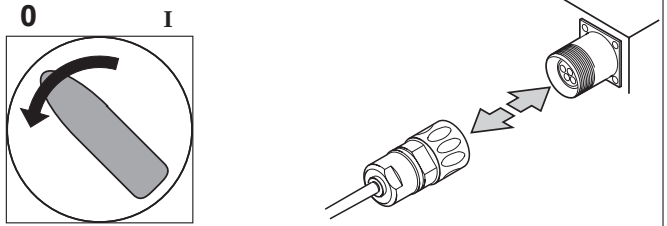
Montageanleitung
Mounting Instructions
Instructions de montage
Istruzioni di montaggio
Instrucciones de montaje

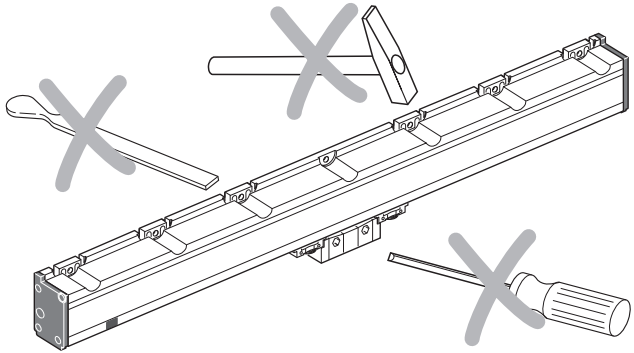
LC 191 F

FANUC SERIAL Interface

DIN EN 100 015 – 1
CECC 00015 – 1







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

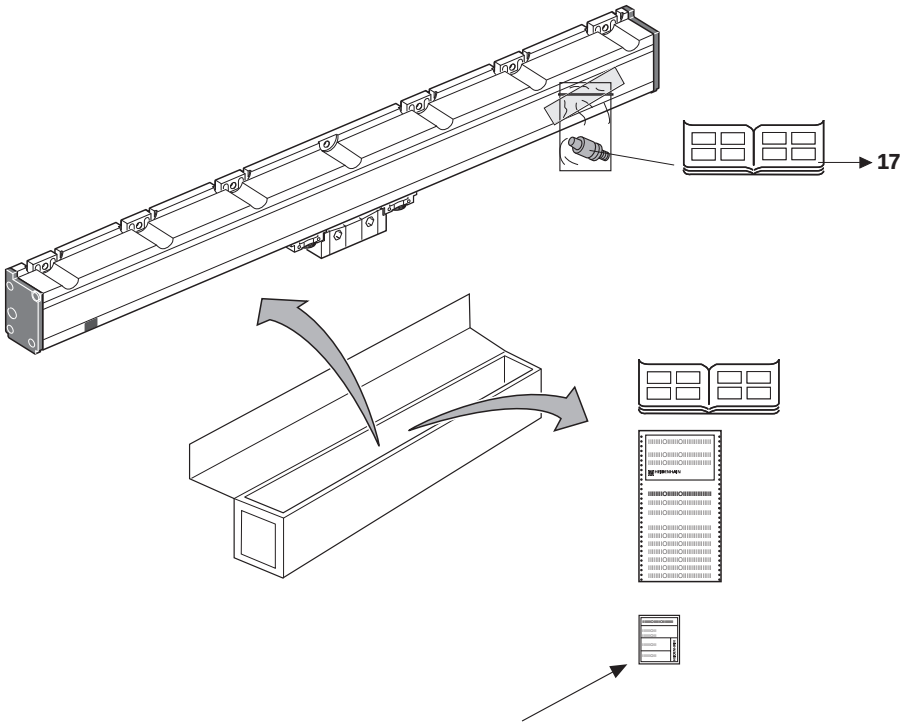
Die Inbetriebnahme des LC 191 F erfordert eine richtige Parametrierung der FANUC-Steuerung (Gefahr von Sach- und Personenschäden). Zur richtigen Parametrierung nehmen Sie bitte Kontakt zum Hersteller der Maschine auf.

The FANUC control parameters for the LC 191 F 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 F nécessite un paramétrage correct de la commande FANUC (risque matériels et corporels). Pour effectuer le paramétrage correctement, prenez S.V.P. contact avec le constructeur de la machine.

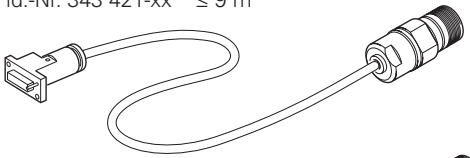
La messa in funzione della LC 191 F richiede una corretta parametrizzazione del controllo FANUC (rischio di danni alle cose e alle persone). Per una corretta parametrizzazione mettersi in contatto con il costruttore della macchina.

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

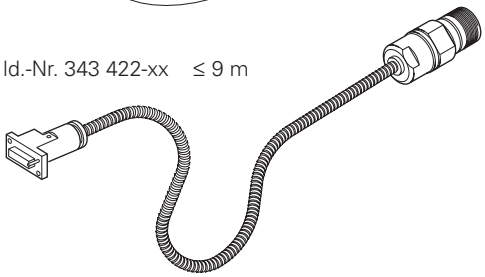


Bei Montage bitte Geräteschild-Aufkleber anbringen (Schaltschrank, Maschinen-Handbuch usw.)
Apply the encoder ID label to an appropriate surface, e.g. the electrical cabinet or machine manual
Lors du montage, accoler S.V.P. l'étiquette signalétique de l'appareil (armoire électrique, manuel de la machine, etc.)
Completato il montaggio, ricordarsi di applicare l'etichetta (manuale della macchina, quadro elettrico)
Por favor, durante el montaje, colocar el adhesivo del letrero del aparato (armario eléctrico, modo de empleo de la máquina, etc.)

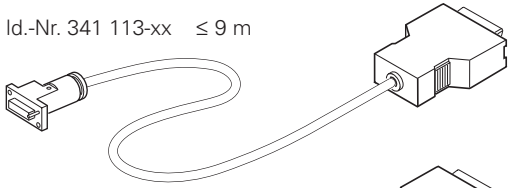
Id.-Nr. 343 421-xx ≤ 9 m



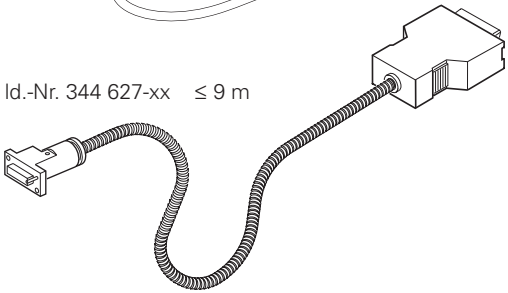
Id.-Nr. 343 422-xx ≤ 9 m



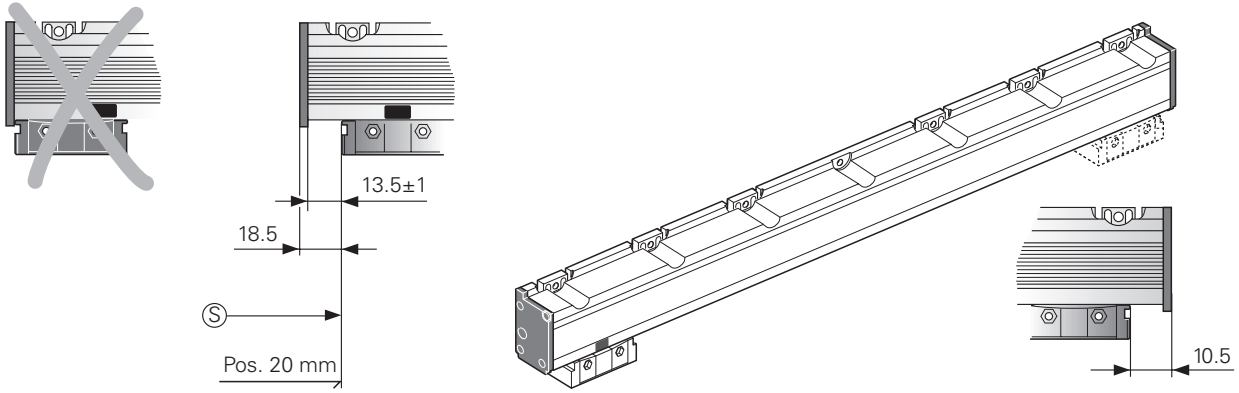
Id.-Nr. 341 113-xx ≤ 9 m



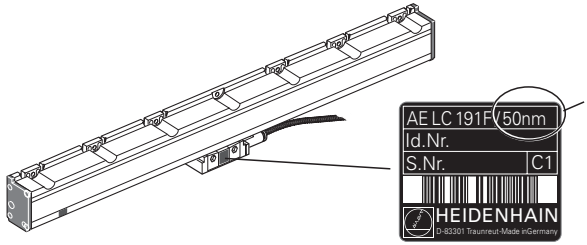
Id.-Nr. 344 627-xx ≤ 9 m



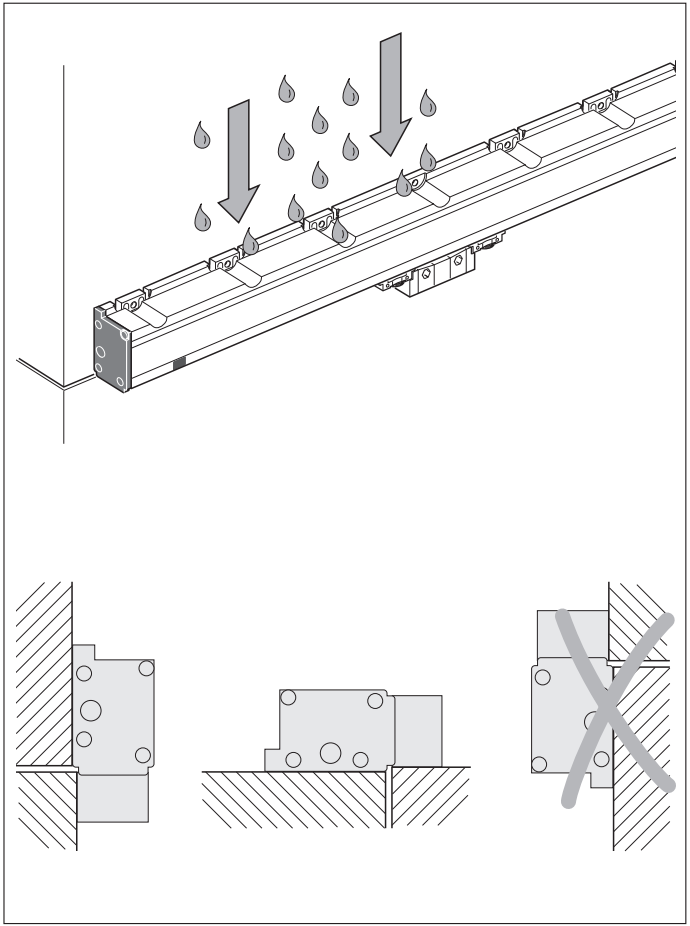
Id.-Nr. 360 472-xx

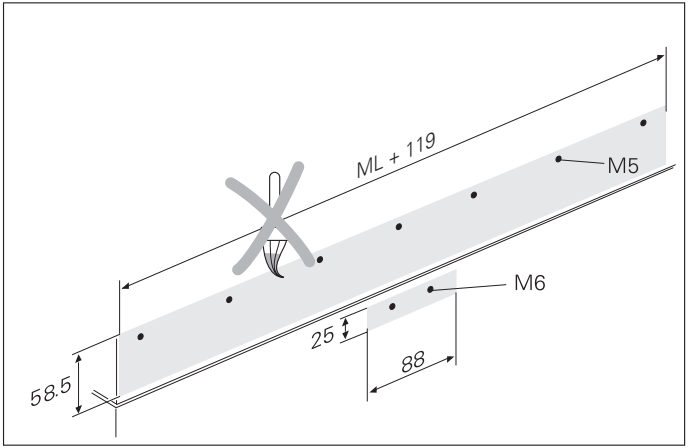


Ⓢ = Der Absolutwert beim Beginn der Messlängen beträgt 20 mm. Je nach Auflösung errechnet sich der Positionswert.
At the beginning of the measuring lengths, the absolute value is 20 mm. The calculated position value depends on the resolution.
La valeur absolue au début des longueurs de mesure est de 20 mm. La valeur de position est calculée en fonction de la résolution.
All'inizio della corsa utile, il valore assoluto della posizione è di 20 mm. Il calcolo del valore di posizione dipende dalla risoluzione.
Al comienzo del curso útil, el valor absoluto es de 20 mm de los extremos. El valor de posición se calcula en función de la resolución.

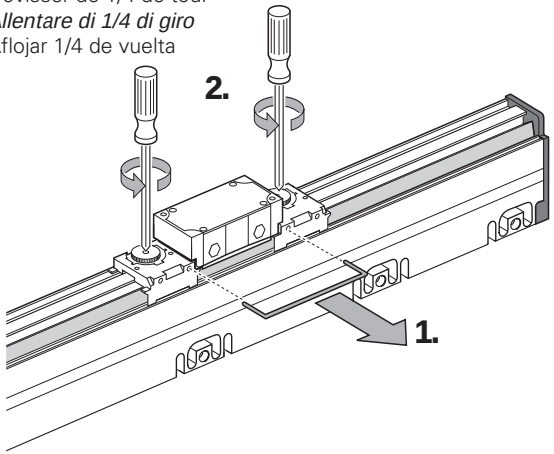


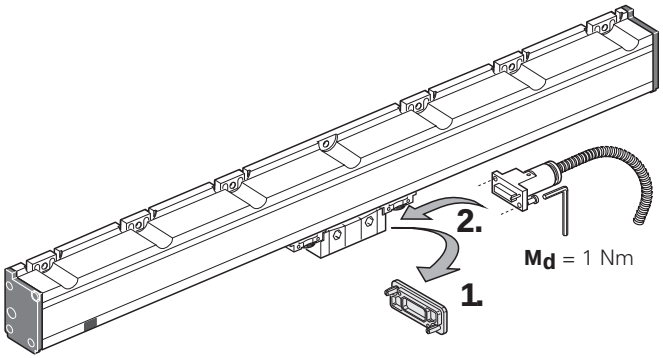
Messschritt z.B. 50 nm oder 0 = programmierbar für Service
Measuring step e.g. 50 nm or 0 = programmable for Service
Pas de mesure ex. 50 nm ou 0 = programmable pour SAV
Passo di misura ad. es. 50 nm oppure 0 = programmabile per assistenza tecnica
Paso de medición p.ej. 50 nm ó 0 = programable para servicio

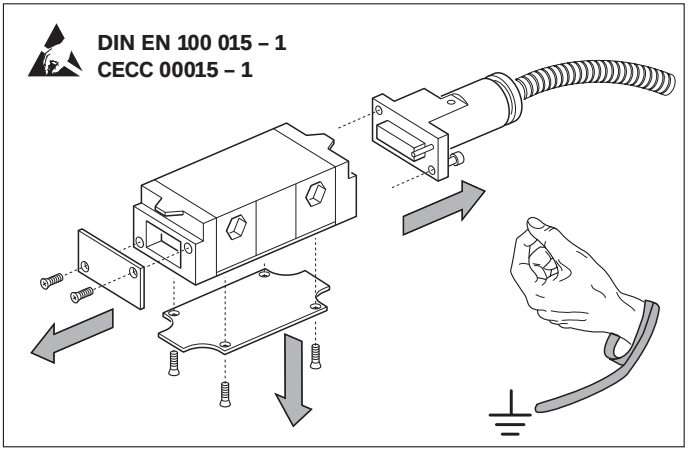


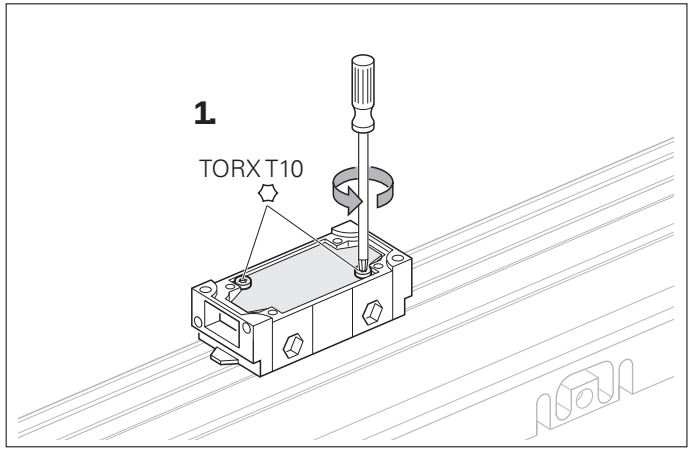

ML + 119
M5
M6
25
88
58.5

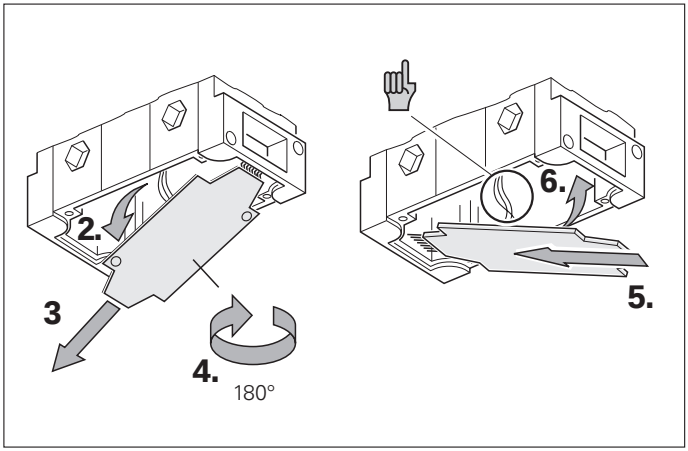
1/4 Umdrehung lösen
Loosen by 1/4 revolution
Dévisser de 1/4 de tour
Allentare di 1/4 di giro
Aflojar 1/4 de vuelta

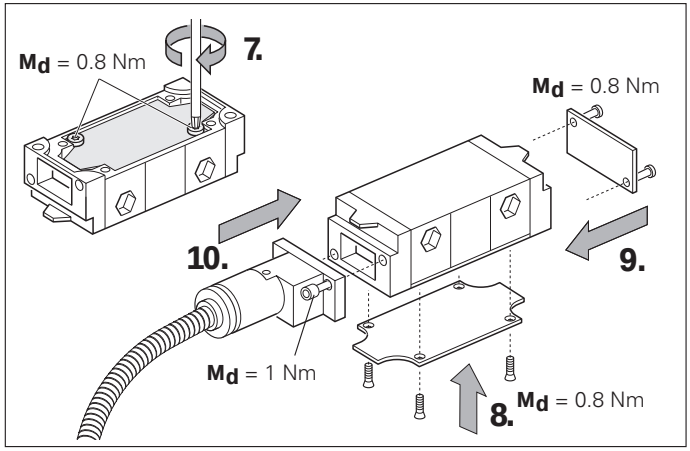





DIN EN 100 015 – 1
CECC 00015 – 1

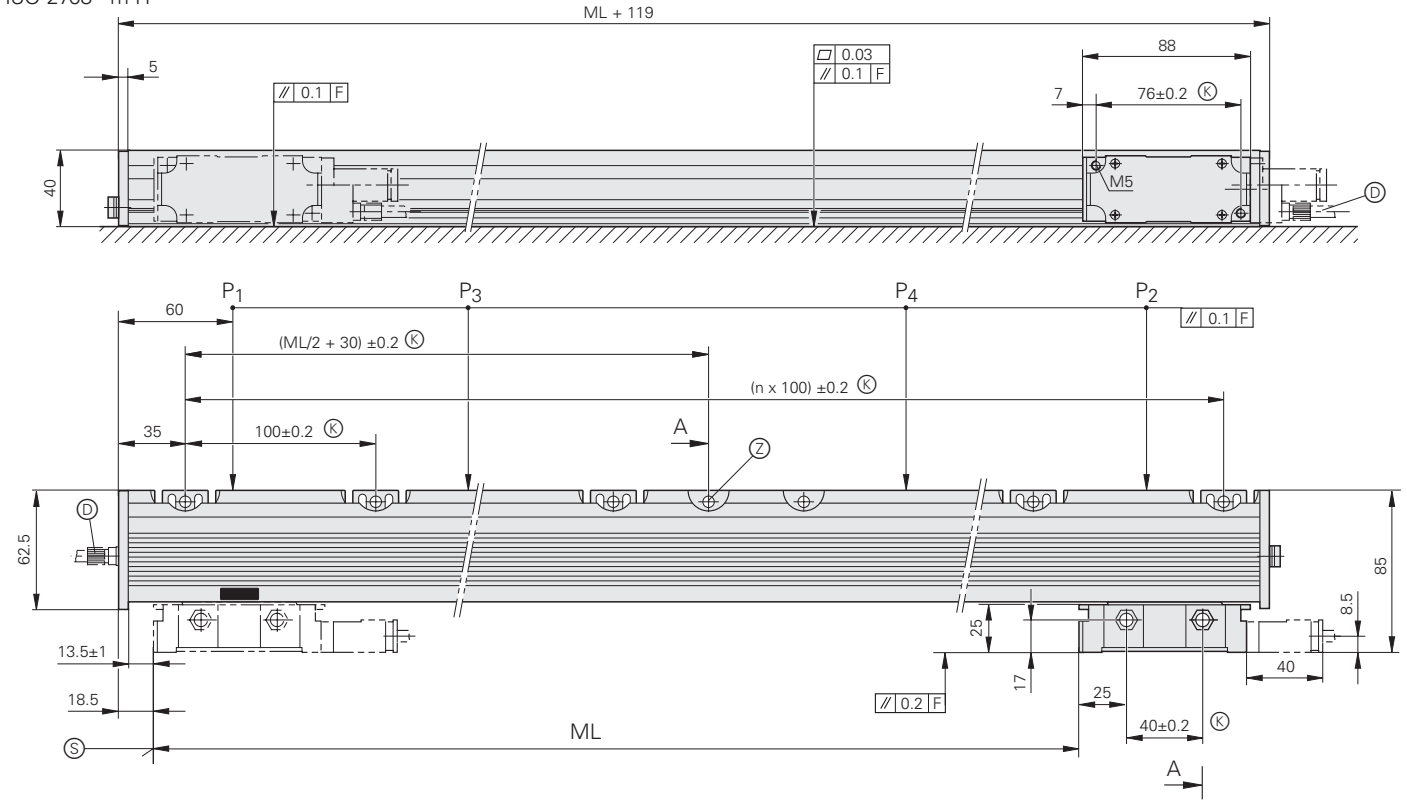

1.
TORX T10


2.
3
4.
180°
6.
5.


Md = 0.8 Nm
7.
Md = 0.8 Nm
10.
9.
Md = 1 Nm
8.
Md = 0.8 Nm

mm

DIN ISO 8015
ISO 2768 - m H



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

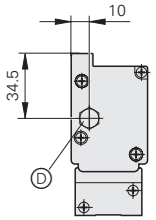
Ⓓ = Druckluftanschluss
Compressed air inlet
raccordement d´air comprimé
ingresso per pressurizzazione
conexión de aire comprimido

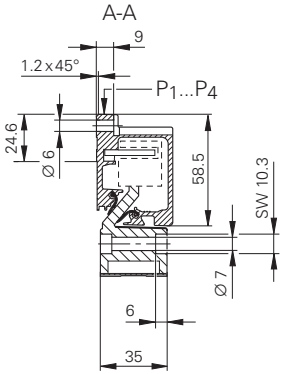
Ⓩ = enfällt wenn (ML/2 + 30)/100 = ganzzahlig
not applicable, if (ML/2 + 30)/100 is an integer
inutile si (ML/2 + 30)/100 est un nombre entier
non vale se (ML/2+30)/100 è un numero intero
no es aplicable cuando (ML/2 + 30)/100 = número entero

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

Ⓢ = Beginn der Messlänge ML
Begin. of meas. length ML
début longueur utile ML
inizio lunghezza di misura ML
comienzo longitud útil ML

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

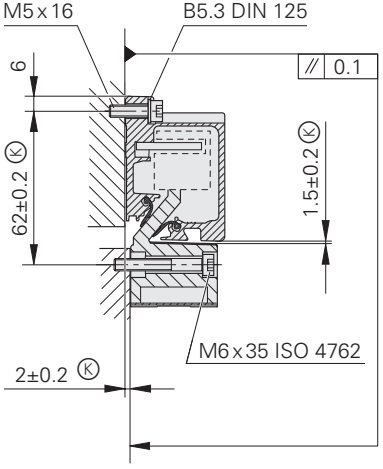




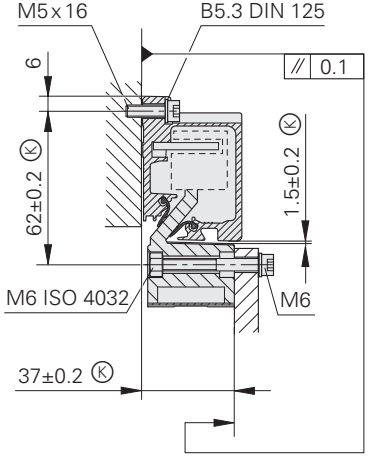
Ⓘ Ⓘ Ⓘ = Montage-Möglichkeiten
Mounting possibiles
options de montage
possibilità di montaggio
posibilidades de montaje

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

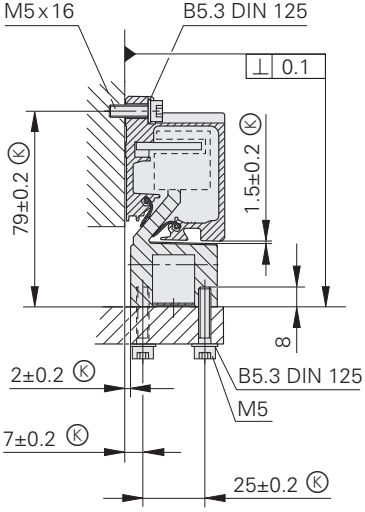
Ⓘ

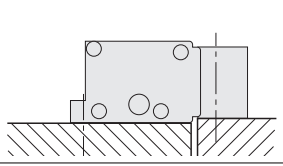


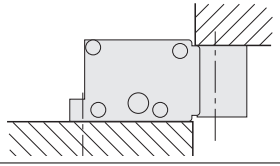
Ⓘ Ⓘ

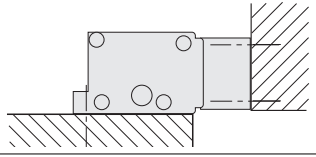


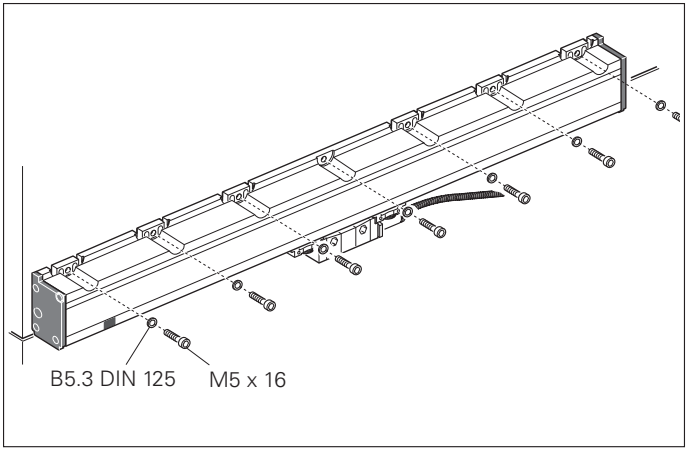
Ⓘ Ⓘ Ⓘ

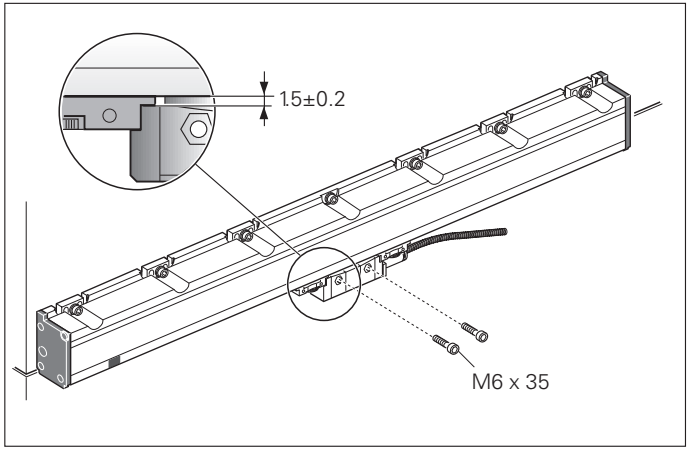




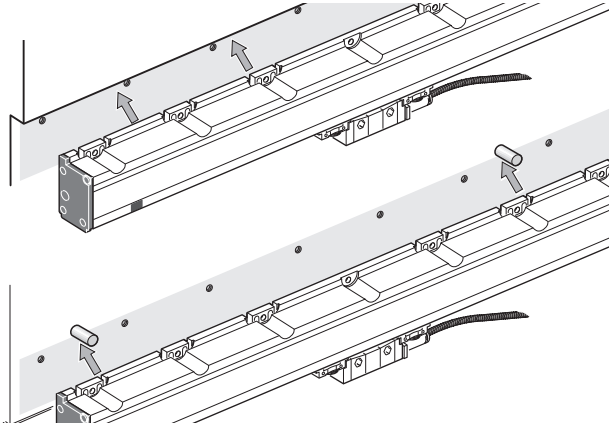


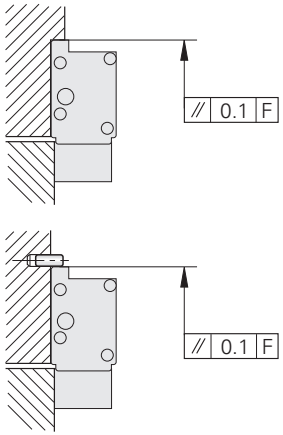




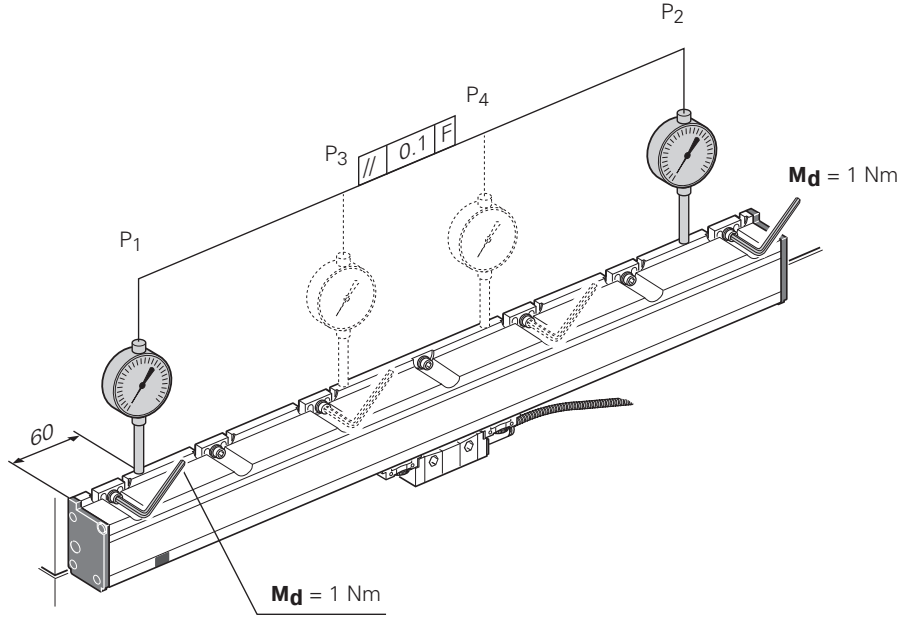


zusätzliche Anbaumöglichkeiten
Additional mounting options
Possibilités de montage supplémentaires
Altre possibilità di montaggio
Posibilidades de montaje adicionales





P = Messpunkte zum Ausrichten
Gauging points for alignment
Points de mesure pour dé gauchissage
Punti di misura per allineamento
Puntos medición alineamiento



ML	
≤ 840mm	**2x**
≤ 1740mm	**3x**
≤ 3040mm	**4x**

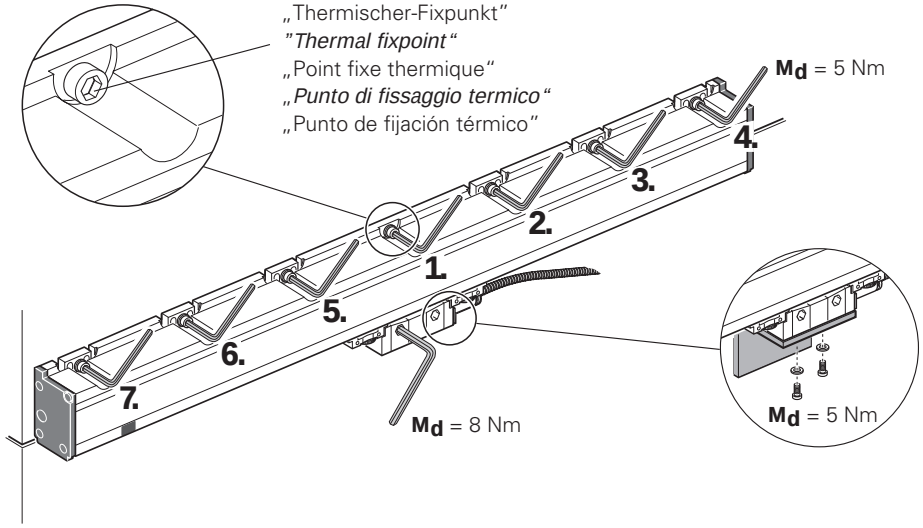
Befestigungsreihenfolge beachten
Mittlere Befestigung zwingend notwendig („Thermischer Fixpunkt“)

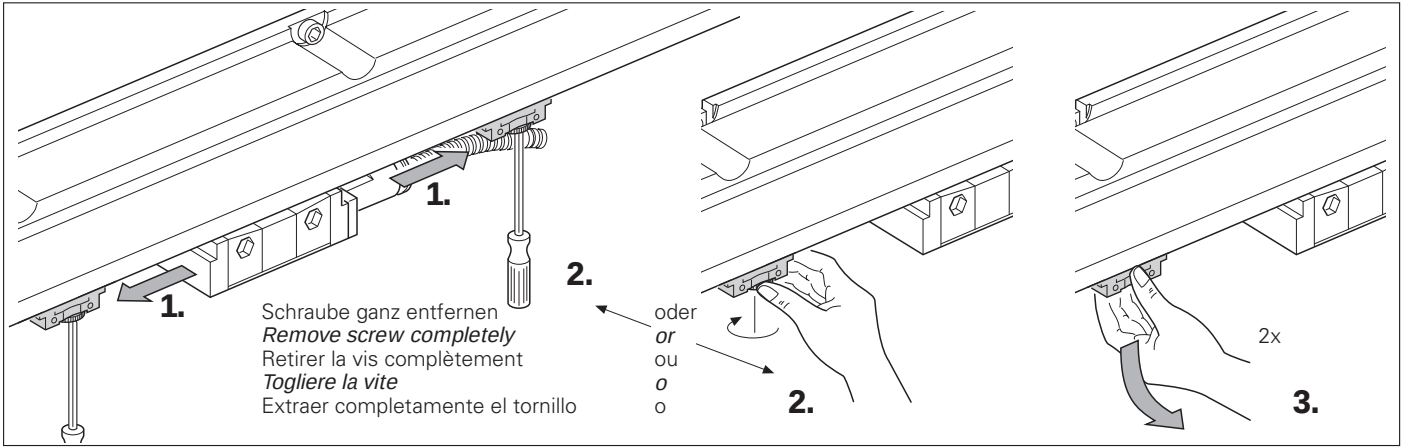
Use the correct sequence when fastening
Mid-point must be fastened (“thermal fixpoint“)

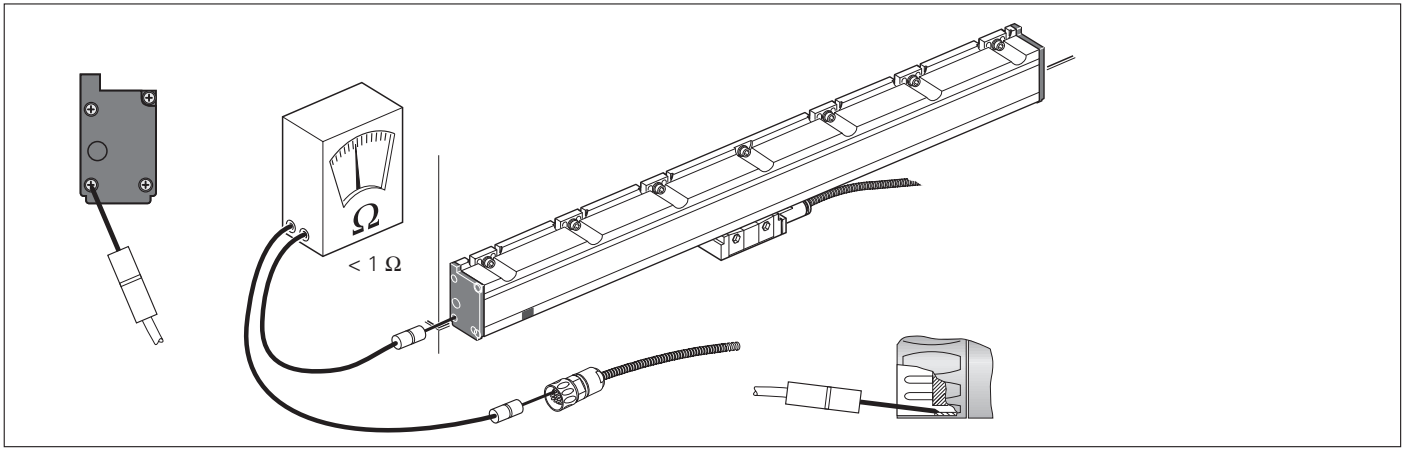
Respecter l‘ordre chronologique de la fixation
Fixation centrale impérative („point fixe thermique“)

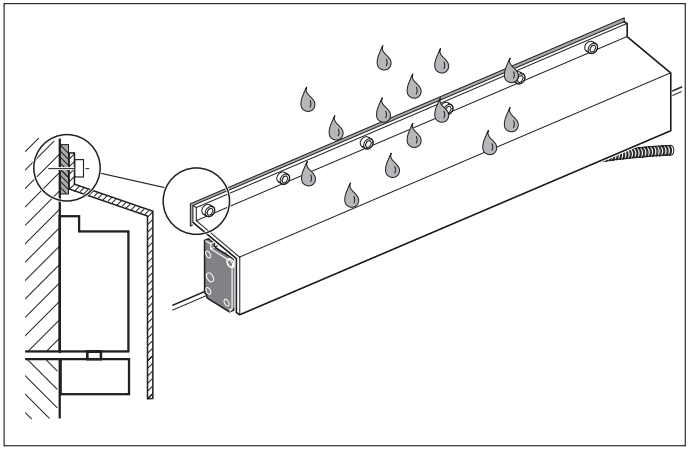
Attenzione alla sequenza per il fissaggio
Ii punto di fissaggio centrale è obbligatorio („punto di fissaggio termico“)

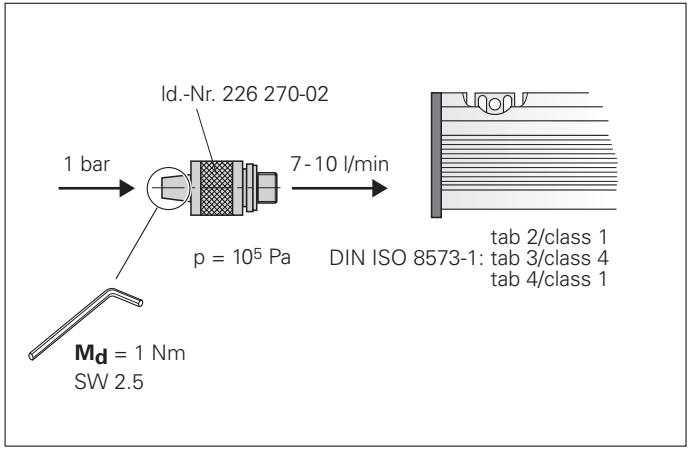
Tener en cuenta la secuencia de sujeción
Sujeción central necesariamente obligatoria („Punto de fijación térmico“)



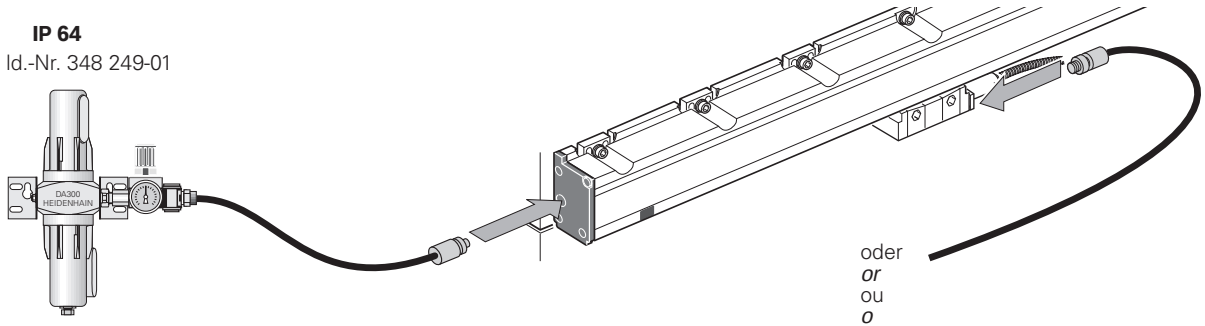

1.
1.
2.
Schraube ganz entfernen
Remove screw completely
Retirer la vis complètement
Togliere la vite
Extraer completamente el tornillo
oder
or
ou
o
o
2.
2x
3.


Ω
< 1 Ω

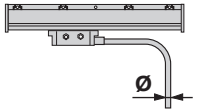
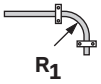
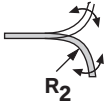


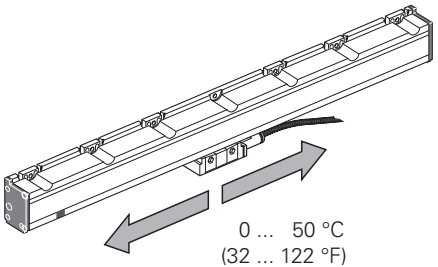


IP 64
Id.-Nr. 348 249-01

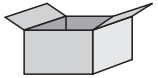


DA 300

		
Ø 6 mm	$R_1 \geq 20$ mm	$R_2 \geq 75$ mm
Ø 10 mm	$R_1 \geq 35$ mm	$R_2 \geq 75$ mm
 **Ø 8 mm**	$R_1 \geq 40$ mm	$R_2 \geq 100$ mm

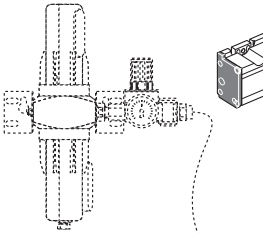


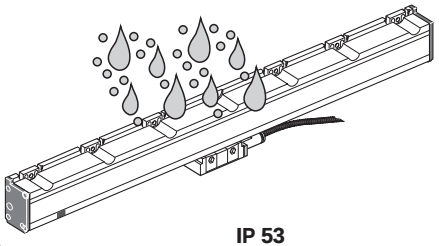
0 ... 50 °C
(32 ... 122 °F)



–20 ... 70 °C
(– 4 ... 158 °F)

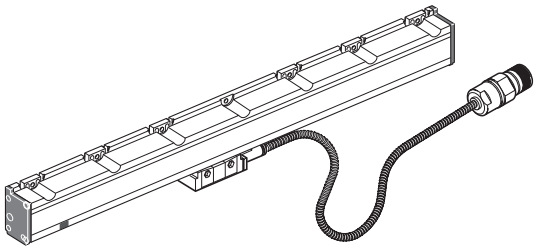
IP 64
EN 60 529





IP 53
EN 60 529

DA 300



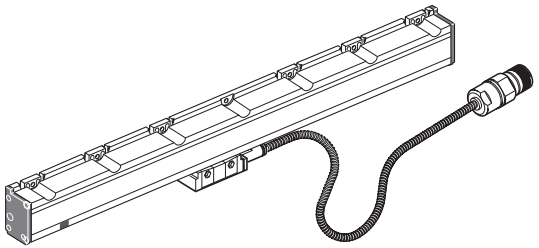
RS-485

Request
Request

U_P = 5 V ± 5 % (Remote Sensing)
(max. 300 mA)

EN 50 178/4.98; 5.2.9.5
IEC 364-4-41: 1992; 411(PELV/SELV)

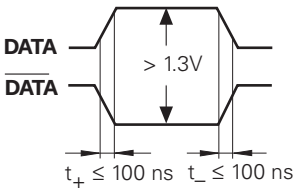
(siehe, *see*, voir, *vedi*, véase
HEIDENHAIN D 231 929)

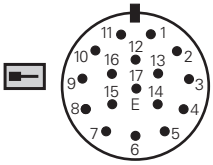


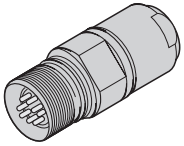
DATA
DATA

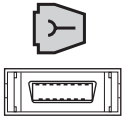
RS-485

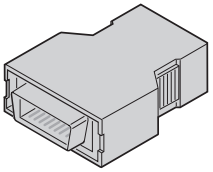
RS-485





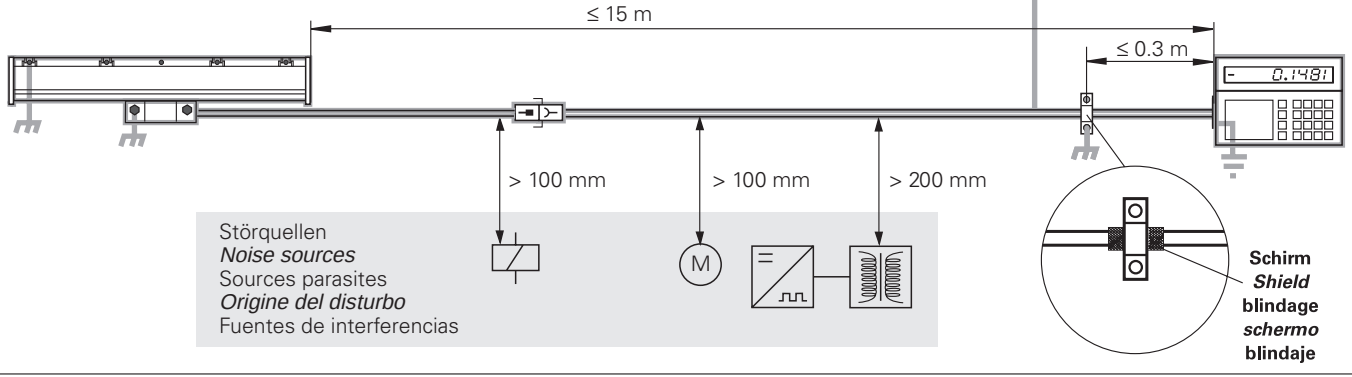






1) Außenschirm Gehäuse
External shield on housing
Blindage externe sur boîtier
Schermo esterno sulla carcassa
Blindaje externo a carcasa

	14	**17**	**8**	**9**	**7**	**1**		**10**	**4**
	1	**2**	**5**	**6**	**9**	**18/20**		**12**	**14/16**
	DATA	**$\overline{\text{DATA}}$**	**Request**	**$\overline{\text{Request}}$**	**5 V U_P**	**5 V sensor**	1)	**0 V U_N**	**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	blau *blue* bleu *azzurro* azul		weiß/grün *white/green* blanc/vert *bianco/verde* blanco/verde	weiß *white* blanc *bianco* blanco



Um einen möglichst geringen Spannungsabfall auf dem Kabel zu bekommen, ist es empfehlenswert Versorgungsspannung und Sensorleitung (Pin 9 mit Pin 18/20 und Pin 12 mit Pin 14/16) in der Folgeelektronik zu verbinden.

To reduce voltage drop in the cable, we recommend connecting the power supply with the sensor line (pin 9 with pin 18/20 and pin 12 with pin 14/16) in the subsequent electronics.

Pour que la chute de tension sur le câble soit aussi faible que possible, il est conseillé de relier dans l'électronique consécutive la tension d'alimentation à la ligne de retour (plot 9 sur plot 18/20 et plot 12 sur plot 14/16).

Per ridurre al minimo il calo di tensione sul cavo, si consiglia di collegare la tensione di alimentazione e la linea sensore all'elettronica successiva (Pin 9 con Pin 18/20 e Pin 12 con Pin 14/16).

A fin de evitar una caída de tensión excesiva en el cable, se recomienda unir en la electrónica subsiguiente la línea de alimentación con la línea sensor (pin 9 con pin 18/20, y pin 12 con pin 14/16).

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