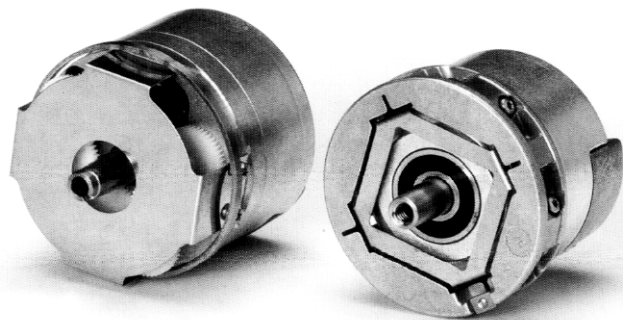




HEIDENHAIN



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

ECN 1313
EQN 1325



HEIDENHAIN

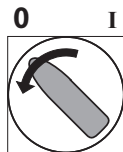
Montageanleitung
Mounting Instructions
Instructions de montage
Istruzioni di montaggio
Instrucciones de montaje

ECN 1313
EQN 1325

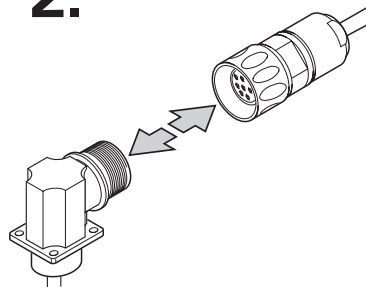
6/2003



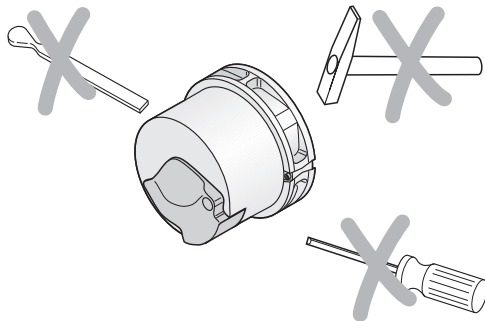
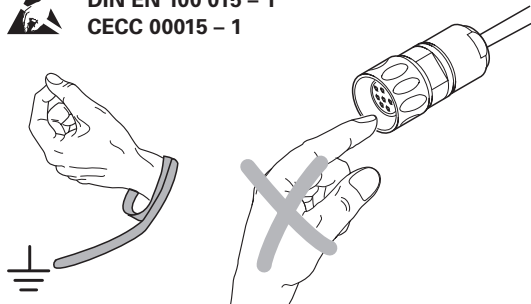
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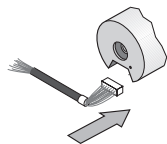


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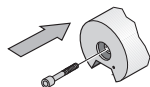


DIN EN 100 015 – 1
CECC 00015 – 1

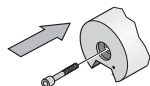




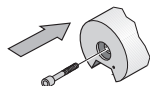
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 EQN 1325 .5DSK-00512-..... ..
 ECN 1313 .5DSK-02048-..... ..
 EQN 1325 .5DSK-02048-..... ..
 ECN 1313 .5DSK-13B00-..... ..
 EQN 1325 .5DSK-13B12-..... ..



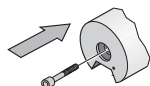
ECN 1313 .5DSK-00512-**K3F**12 KK
 EQN 1325 .5DSK-00512-**K3F**12 KK



ECN 1313 .5DSK-00512-**K3R**12 KK
 EQN 1325 .5DSK-00512-**K3R**12 KK
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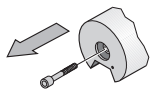


ECN 1313 .5DSK-00512-**K3S**12 KK
 EQN 1325 .5DSK-00512-**K3S**12 KK
 EQN 1325 .5DSK-13B12-**K3S**12 KK

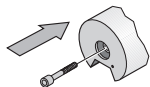


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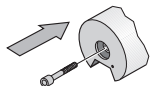




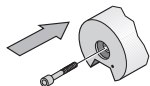
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 EQN 1325 .5DSK-**00512-K3**... ..
 ECN 1313 .5DSK-**02048-K3**... ..
 EQN 1325 .5DSK-**02048-K3**... ..
 ECN 1313 .5DSK-**13B00-K3**... ..
 EQN 1325 .5DSK-**13B12-K3**... ..



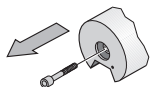
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 EQN 1325 .5DSK-00512-**H6F12** KK



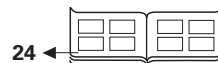
ECN 1313 .5DSK-00512-**H6A12** KK
 EQN 1325 .5DSK-00512-**H6A12** KK



ECN 1313 .5DSK-00512-**H5F12** KK
 EQN 1325 .5DSK-00512-**H5F12** KK

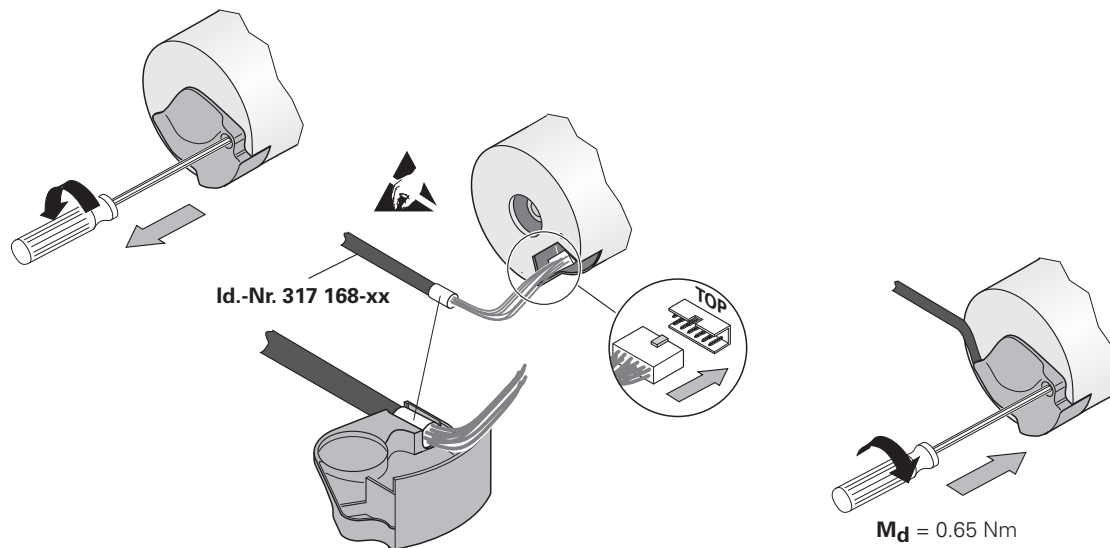


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 EQN 1325 .5DSK-00512-**H6**... ..
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 EQN 1325 .5DSK-00512-**H5**... ..

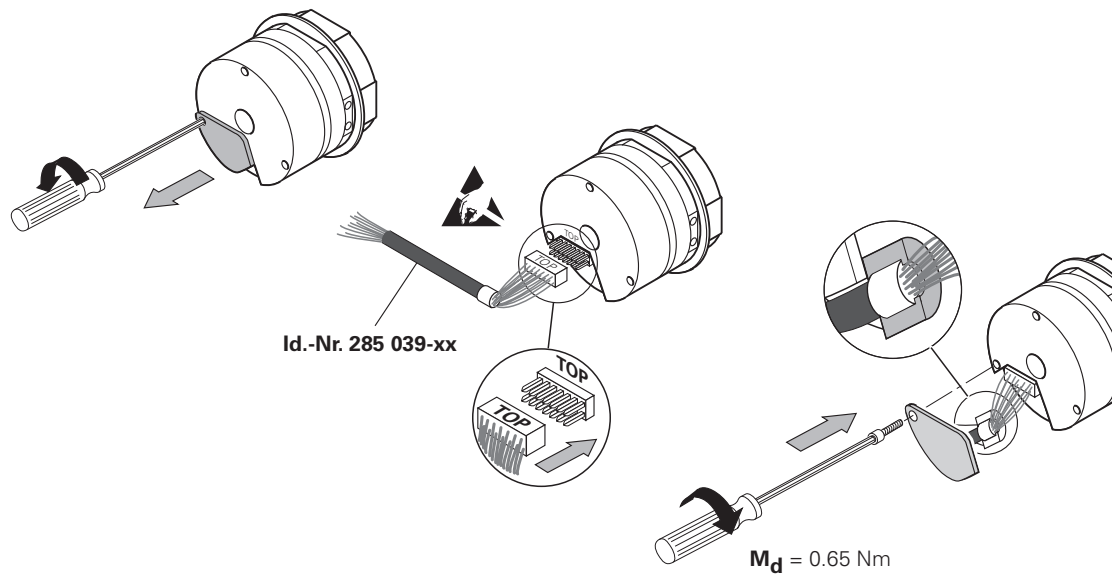


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EQN 1325 .5DSK-00512-..... ..

ECN 1313 .5DSK-02048-..... ..
EQN 1325 .5DSK-02048-..... ..

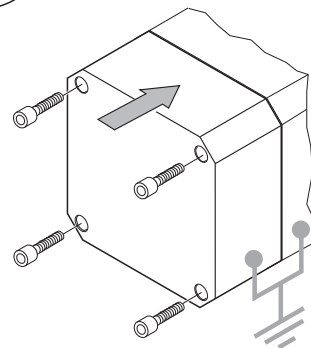
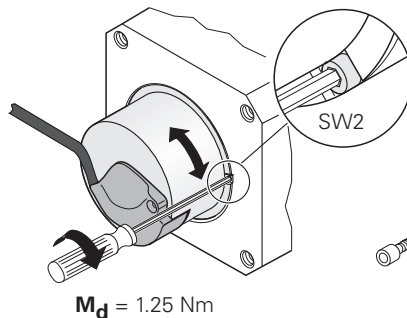
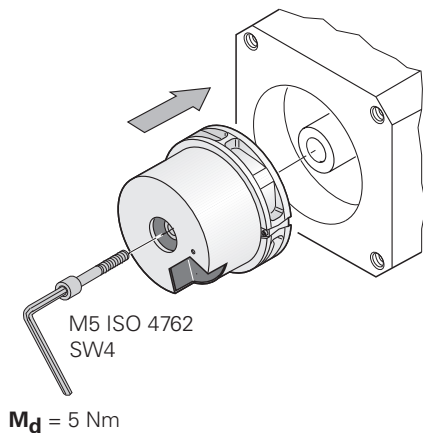


ECN 1313 .5DSK-13B00-..... ..
EQN 1325 .5DSK-13B12-..... ..



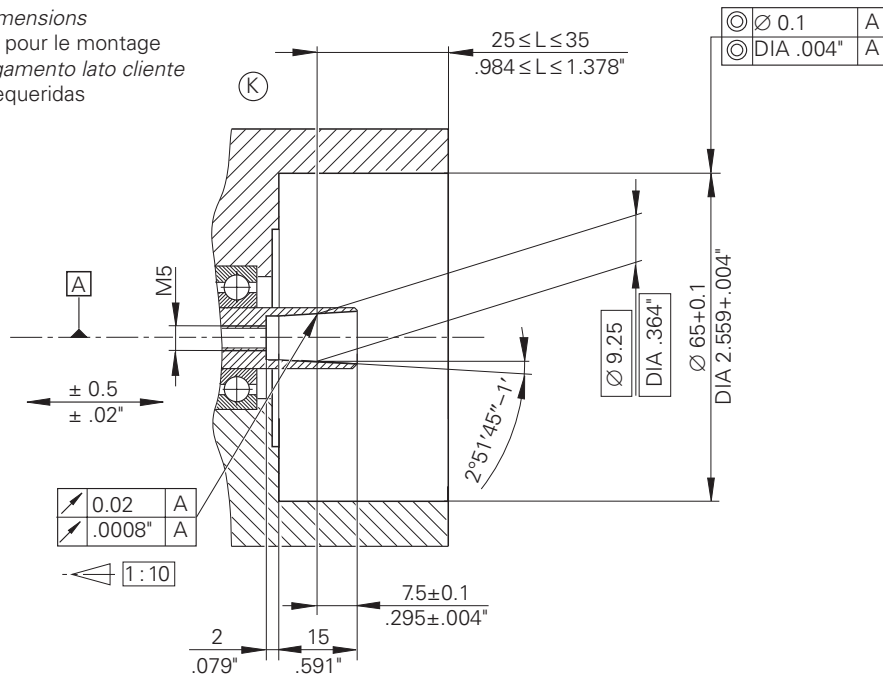
ECN 1313 .5DSK-00512-**K3F**12 KK M5 x 50 ISO 4762
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Id.-Nr. 312 211-03 Id.-Nr. 312 211-03
 Id.-Nr. 312 212-03 Id.-Nr. 312 212-03
 Id.-Nr. 312 213-03
 Id.-Nr. 312 214-04
 Id.-Nr. 312 214-08



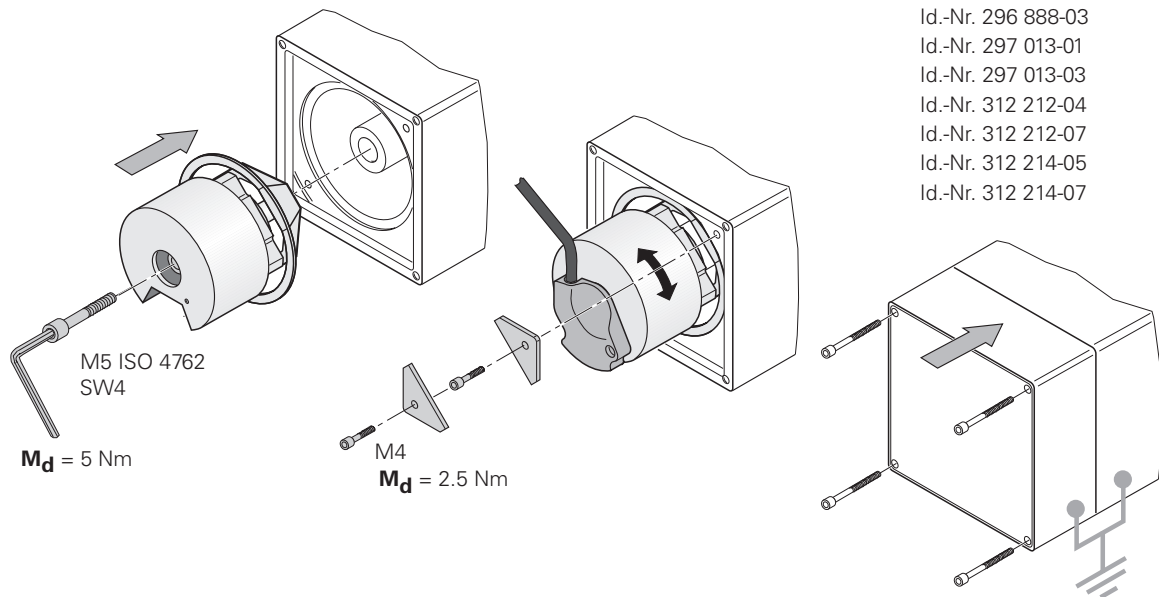
(K) = Kundenseitige Anschlussmaße
 Required mating dimensions
 conditions requises pour le montage
 dimensioni di collegamento lato cliente
 cotas de montaje requeridas

[A] = Lagerung
 Bearing
 roulement
 cuscinetto
 rodamiento

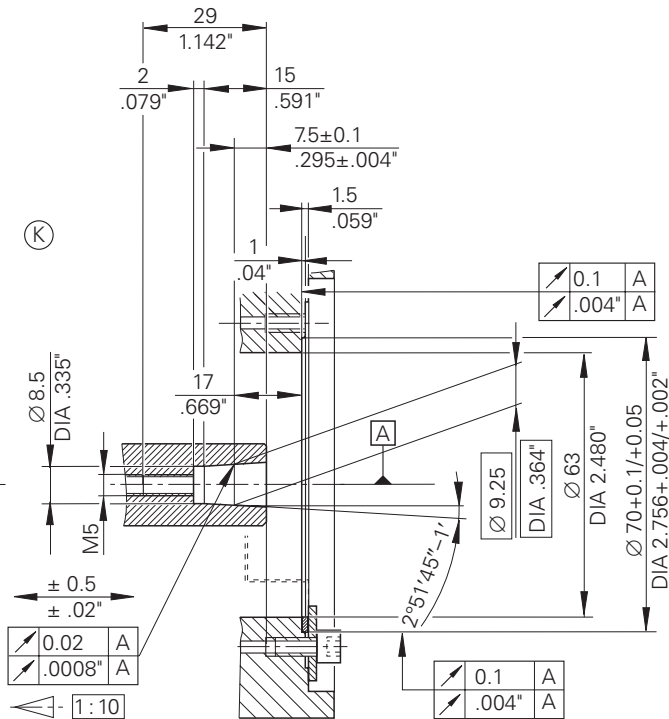


ECN 1313 .5DSK-00512- K3R12	KK	M5 x 50 ISO 4762
EQN 1325 .5DSK-00512- K3R12	KK	M5 x 70 ISO 4762
EQN 1325 .5DSK-13B12- K3R12	KK	M5 x 50 ISO 4762

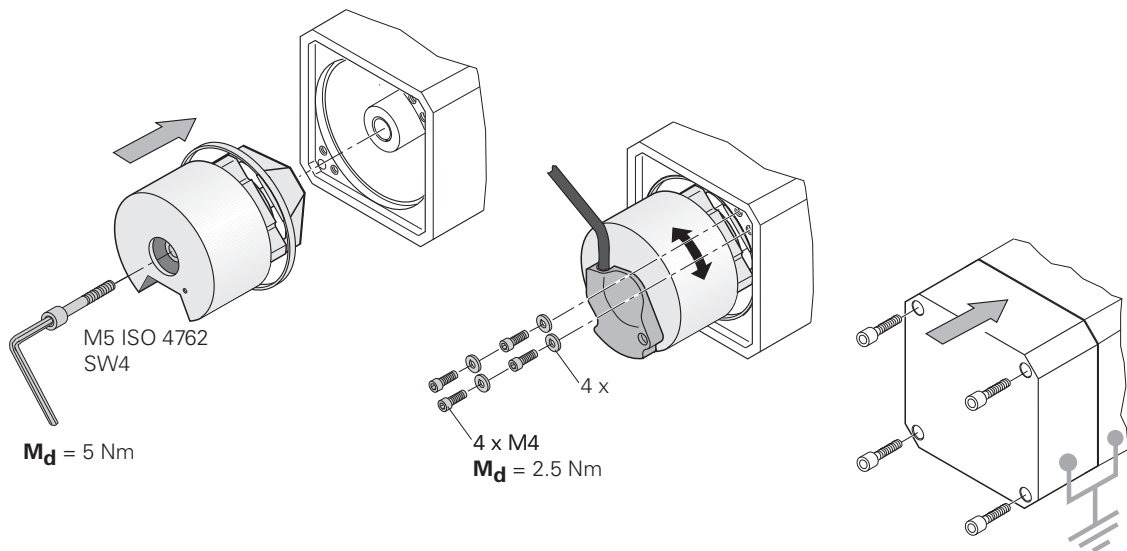
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 Id.-Nr. 296 888-01
 Id.-Nr. 296 888-03
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 Id.-Nr. 297 013-03
 Id.-Nr. 312 212-04
 Id.-Nr. 312 212-07
 Id.-Nr. 312 214-05
 Id.-Nr. 312 214-07



A = Lagerung
Bearing
roulement
cuscinetto
rodamiento

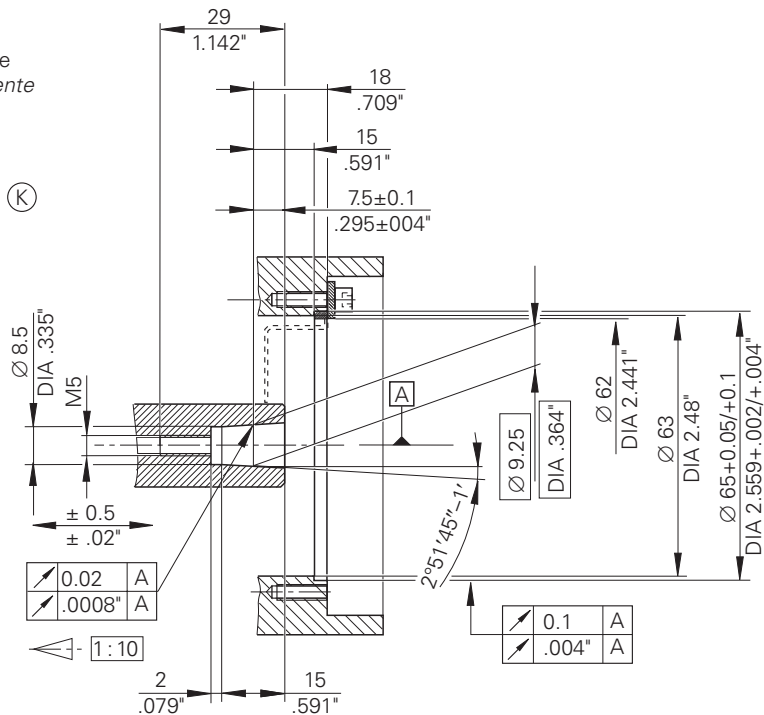
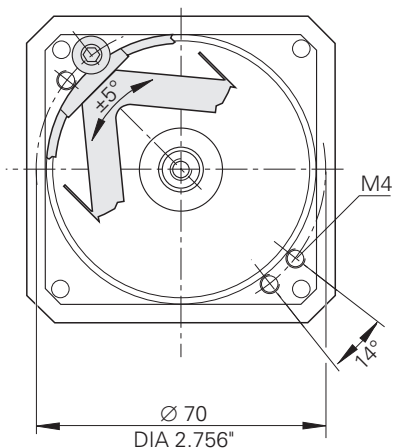


ECN 1313 .5DSK-00512- K3S 12	KK	M5 x 50 ISO 4762
EQN 1325 .5DSK-00512- K3S 12	KK	M5 x 70 ISO 4762
EQN 1325 .5DSK-13B12- K3S 12	KK	M5 x 50 ISO 4762



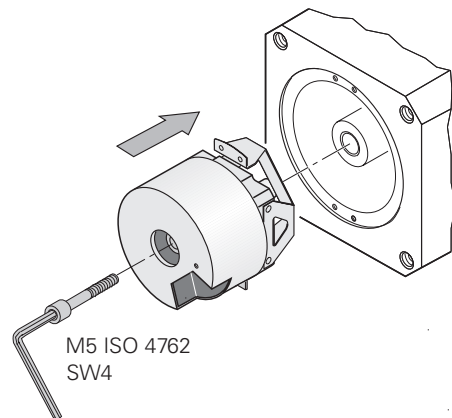
(K) = Kundenseitige Anschlussmaße
 Required mating dimensions
 conditions requises pour le montage
 dimensioni di collegamento lato cliente
 cotas de montaje requeridas

(A) = Lagerung
 Bearing
 roulement
 cuscinetto
 rodamiento

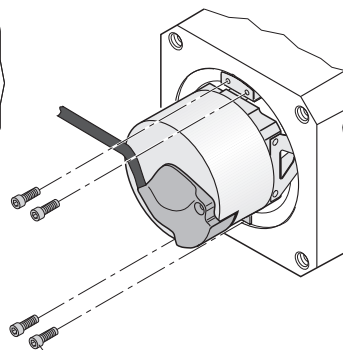


ECN 1313 .5DSK-00512- K3L 12	KK	M5 x 50 ISO 4762
EQN 1325 .5DSK-00512- K3L 12	KK	M5 x 70 ISO 4762
EQN 1325 .5DSK-13B12- K3L 12	KK	M5 x 50 ISO 4762

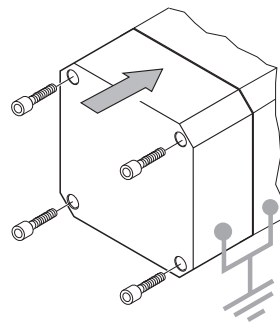
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 Id.-Nr. 276 053-02
 Id.-Nr. 296 888-02
 Id.-Nr. 297 013-02
 Id.-Nr. 312 212-05
 Id.-Nr. 312 214-06



M_d = 5 Nm

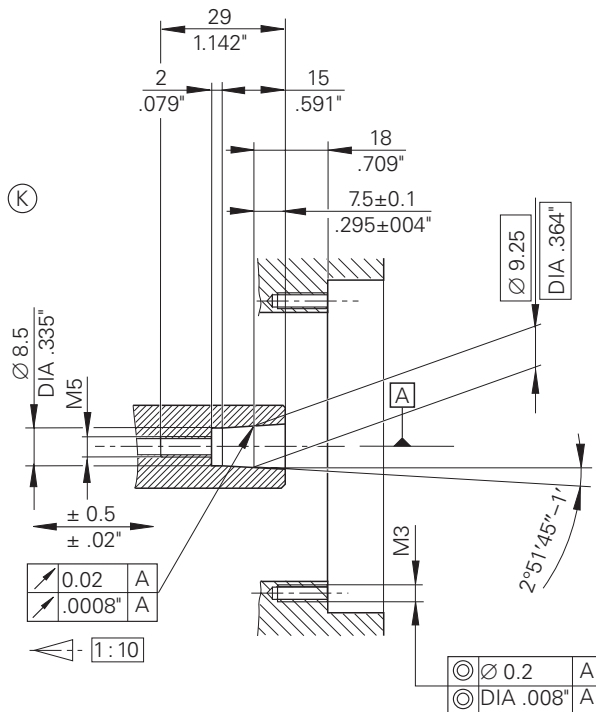
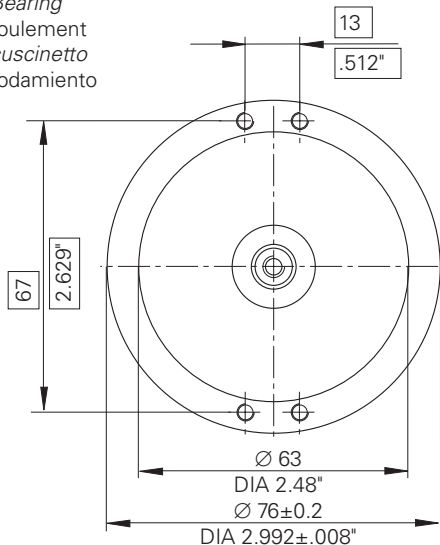


M_d = 1 Nm



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

[A] = Lagerung
 Bearing
 roulement
 cuscinetto
 rodamiento

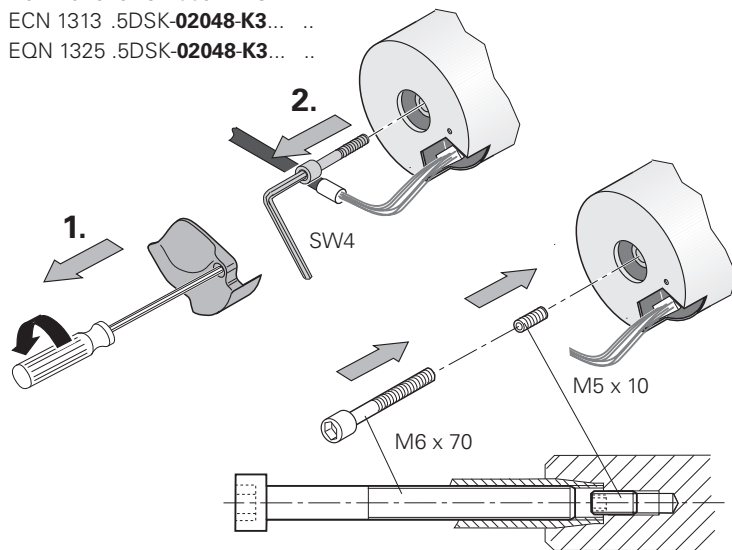


ECN 1313 .5DSK-**00512-K3**... ..

EQN 1325 .5DSK-**00512-K3**... ..

ECN 1313 .5DSK-**02048-K3**... ..

EQN 1325 .5DSK-**02048-K3**... ..



Id.-Nr. 312 211-03

Id.-Nr. 312 212-03

Id.-Nr. 312 212-04

Id.-Nr. 312 212-05

Id.-Nr. 312 212-06

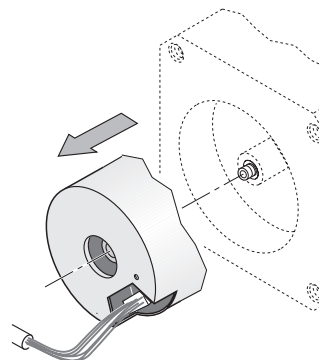
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Id.-Nr. 312 214-03

Id.-Nr. 312 214-04

Id.-Nr. 312 214-05

Id.-Nr. 312 214-06



ECN 1313 .5DSK-**13B00-K3**... ..

EQN 1325 .5DSK-**13B12-K3**... ..

Id.-Nr. 276 053-02

Id.-Nr. 285 062-01

Id.-Nr. 285 062-05

Id.-Nr. 285 062-06

Id.-Nr. 296 887-01

Id.-Nr. 296 887-51

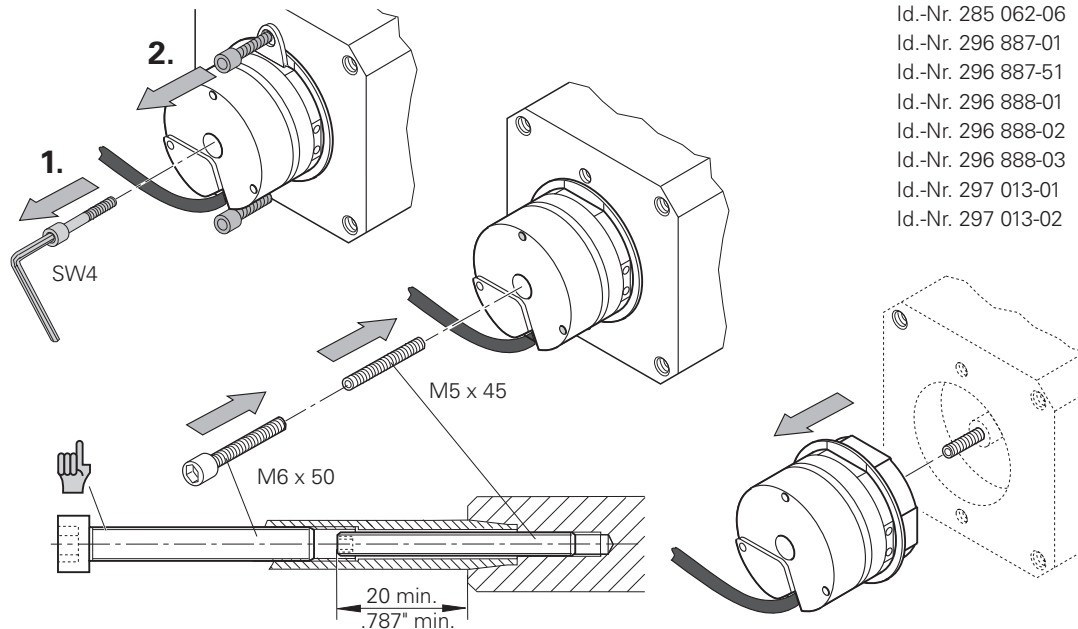
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Id.-Nr. 296 888-02

Id.-Nr. 296 888-03

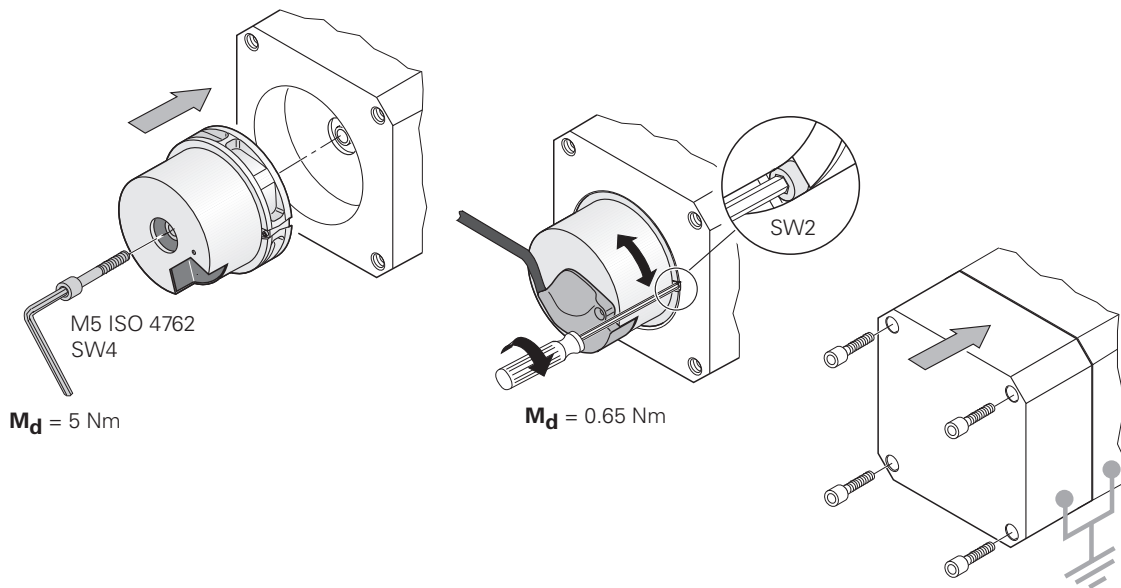
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Id.-Nr. 297 013-02

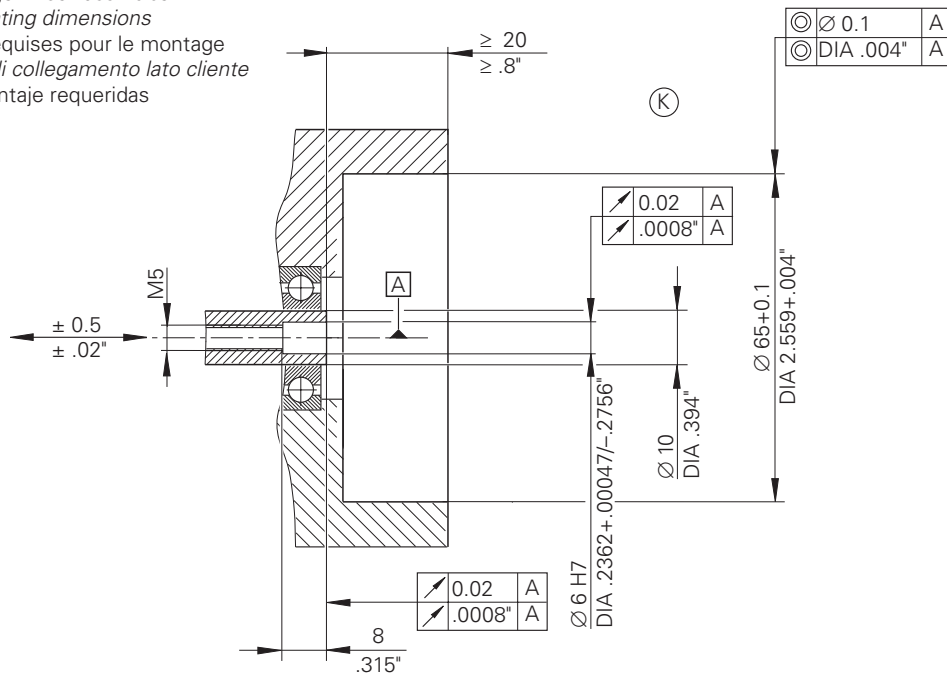


ECN 1313 .5DSK-00512-**H6F**12 KK M5 x 45 ISO 4762
EQN 1325 .5DSK-00512-**H6F**12 KK M5 x 60 ISO 4762

Id.-Nr. 312 211-02
Id.-Nr. 312 212-02
Id.-Nr. 312 213-02

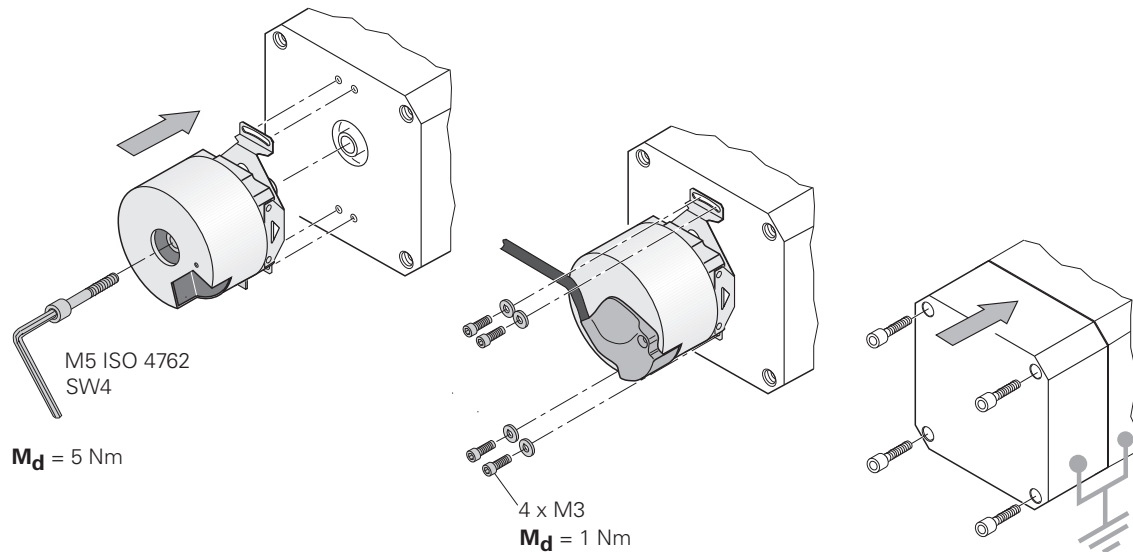


A = Lagerung
Bearing
roulement
cuscinetto
rodamiento



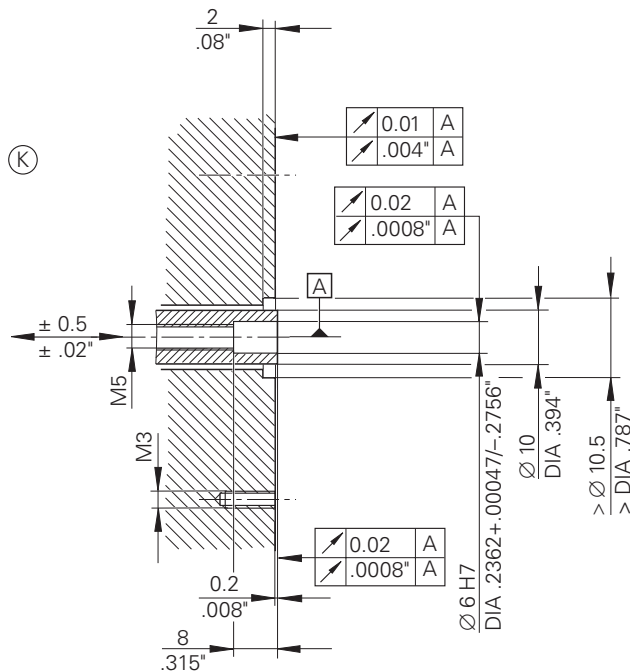
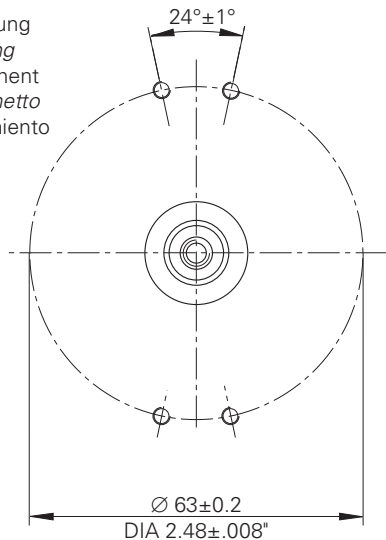
ECN 1313 .5DSK-00512-**H6A**12 KK M5 x 45 ISO 4762
EQN 1325 .5DSK-00512-**H6A**12 KK M5 x 60 ISO 4762

Id.-Nr. 312 214-02



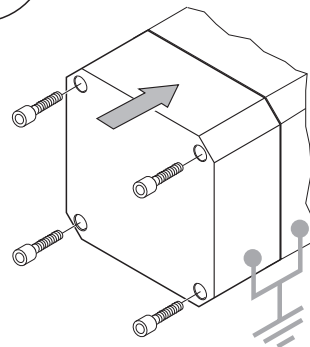
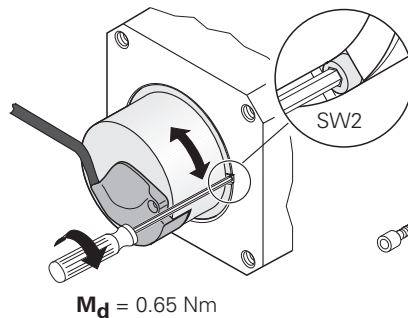
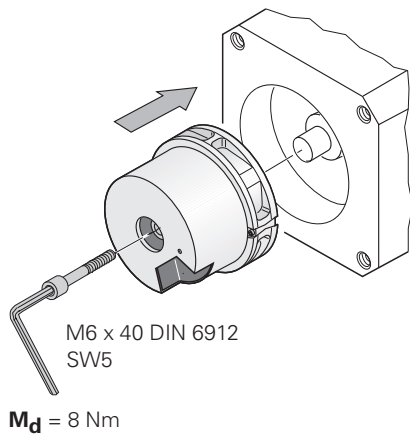
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[A] = Lagerung
 Bearing
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 cuscinetto
 rodamiento

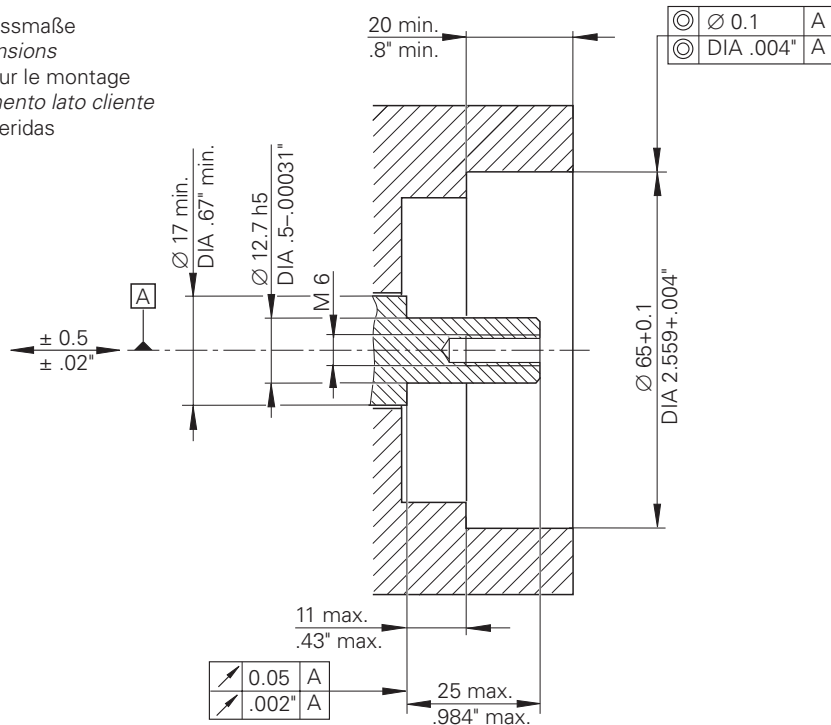


ECN 1313 .5DSK-00512-**H5F**12 KK

EQN 1325 .5DSK-00512-**H5F**12 KK



A = Lagerung
Bearing
roulement
cuscinetto
rodamiento



ECN 1313 .5DSK-00512-**H6**... .. SW 4

EQN 1325 .5DSK-00512-**H6**... .. SW 4

ECN 1313 .5DSK-00512-**H5**... .. SW 5

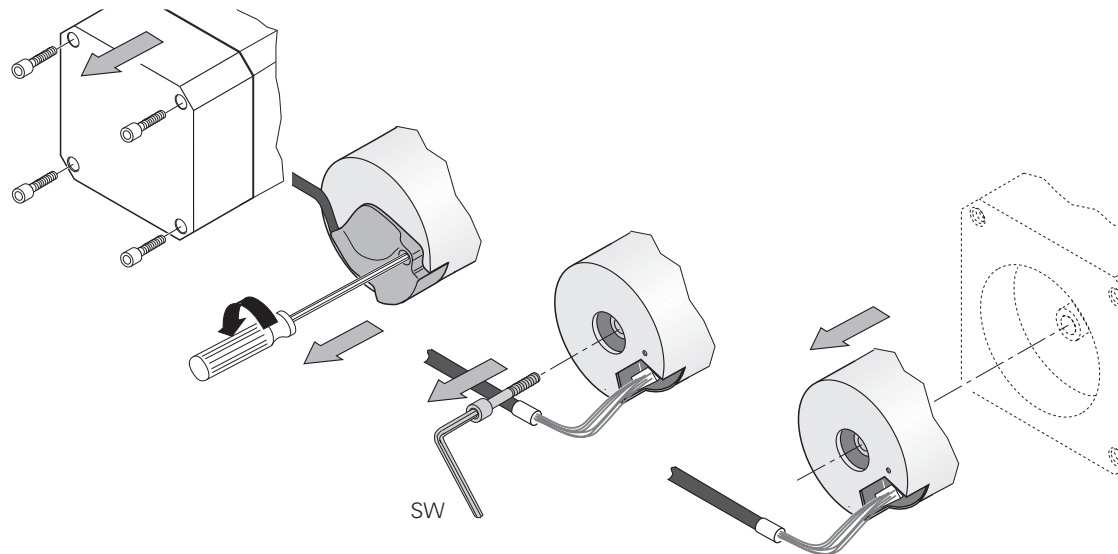
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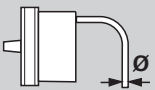
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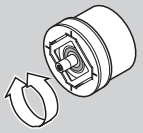
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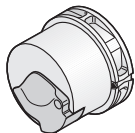
Id.-Nr. 312 213-02

Id.-Nr. 312 214-02



		
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 8 mm DIA .315 in.	$R_1 \geq 40 \text{ mm}$ $R_1 \geq 1.6 \text{ in.}$	$R_2 \geq 100 \text{ mm}$ $R_2 \geq 4 \text{ in.}$

	$I = 2.6 \cdot 10^{-6} \text{ kgm}^2$
---	---------------------------------------



U_p = 5 V ± 5 %

(max. 200 mA) ECN 1313.5DSK-13B00

(max. 150 mA) ECN 1313.5DSK-00512

(max. 150 mA) ECN 1313.5DSK-02048

(max. 300 mA) EQN 1325.5DSK-13B12

(max. 250 mA) EQN 1325.5DSK-00512

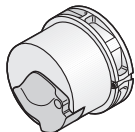
(max. 250 mA) EQN 1325.5DSK-02048



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)



CLOCK

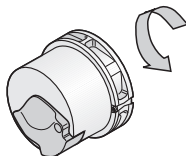


CLOCK



RS 422

RS 485



DATA



DATA



A

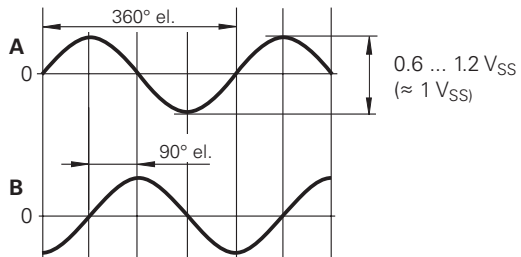


B

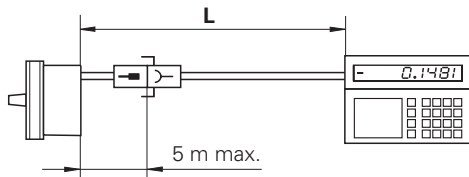
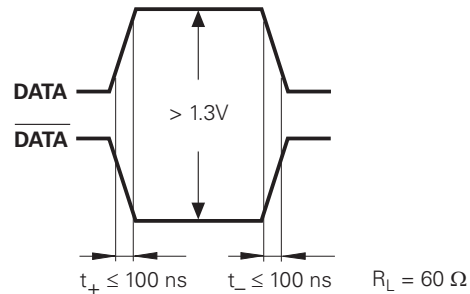


RS 422

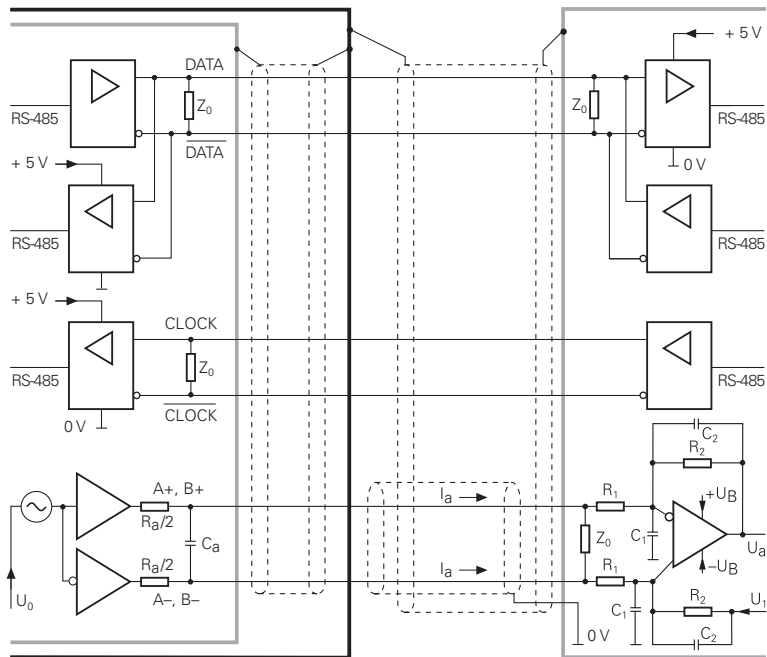
RS 485



RS 485

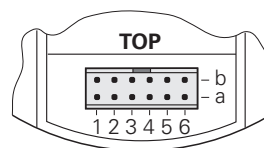
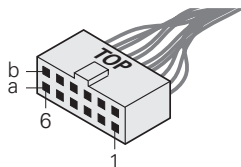


L	T	Δ	f
10 m/32.8 ft	0.5...10 μ s	Δ	2000...100 kHz
50 m/164 ft	1 ...10 μ s	Δ	1000...100 kHz
100 m/329 ft	2.0...10 μ s	Δ	500...100 kHz
150 m/492 ft	3.3...10 μ s	Δ	300...100 kHz

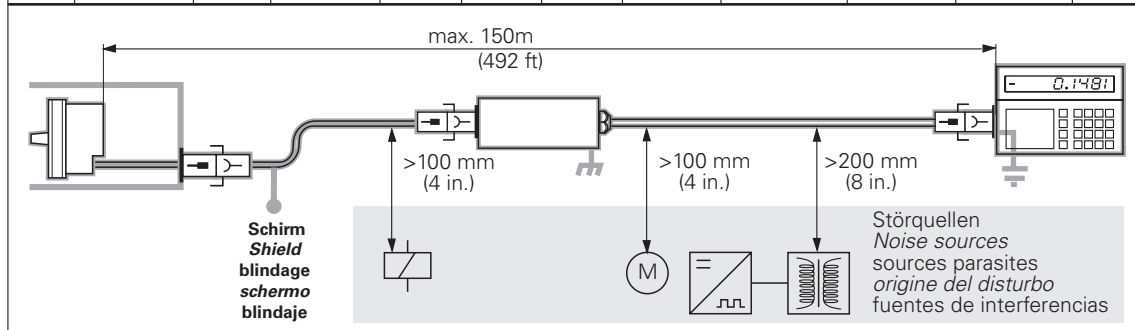


$R_a < 100 \, \Omega$
 $C_a < 50 \, \text{pF}$
 $\Sigma I_a < 1 \, \text{mA}$
 $U_0 = 2.5 \, \text{V} \pm 0.5 \, \text{V}$

$Z_0 = 120 \, \Omega$
 $U_1 \approx U_0$



1 a	2 a	3 a	4 a	5 a	6 a	2 b	3 b	1 b	4 b	5 b	6 b
DATA	A +	0V sensor	B +	CLOCK	5V sensor	CLOCK	B -	5V U_P	0V U_N	A -	DATA
rosa pink rose rosa rosa	grün/schwarz green/black vert/noir verde/nero verde/negro	weiß white blanc bianco blanco	blau/schwarz blue/black bleu/noir azzurro/nero azul/negro	gelb yellow jaune giallo amarillo	blau blue bleu azzurro azul	violett violet violet viola violeta	rot/schwarz red/black rouge/noir rosso/nero rojo/negro	braun/grün brown/green brun/vert marrone/verde marron/verde	weiß/grün white/green blanc/vert bianco/verde blanco/verde	gelb/schwarz yellow/black jaune/noir giallo/nero amarillo/negro	grau gray gris grigio gris



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