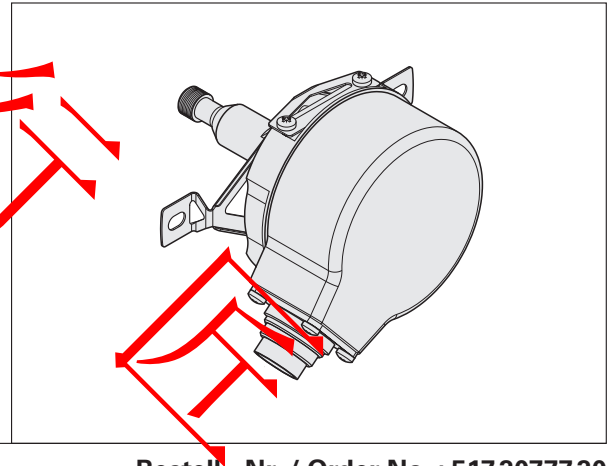
SIEMENS

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

Drehimpulsgeber
Rotary pulse encoder
Codeur rotatif d'impulsion
Emisor de impulsos (encoder)
Encoder impulsi di rotazione
Momentgevare

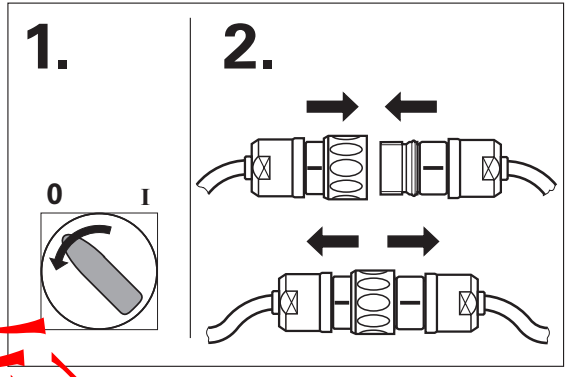


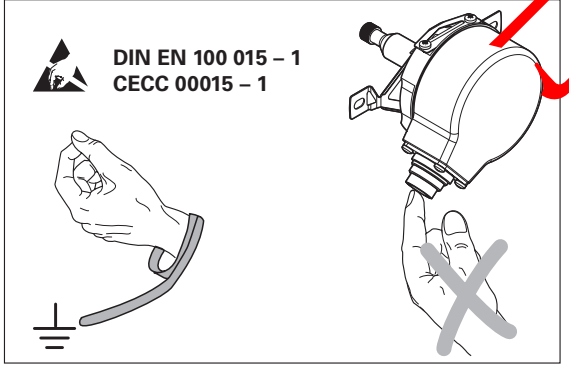
1XP8001-1
1XP8001-2

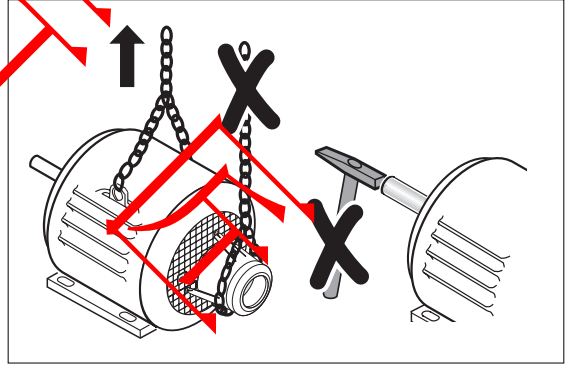
1/2005

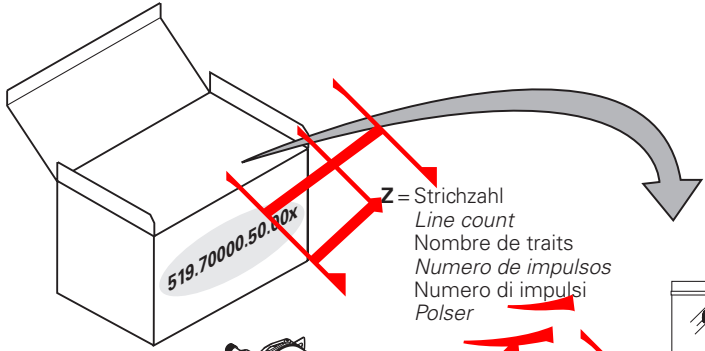
Bestell - Nr. / Order No. : 517.30777.30
DEUTSCH / *ENGLISH* / FRANÇAIS / *ESPAÑOL* / ITALIANO / *SVENSK*

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





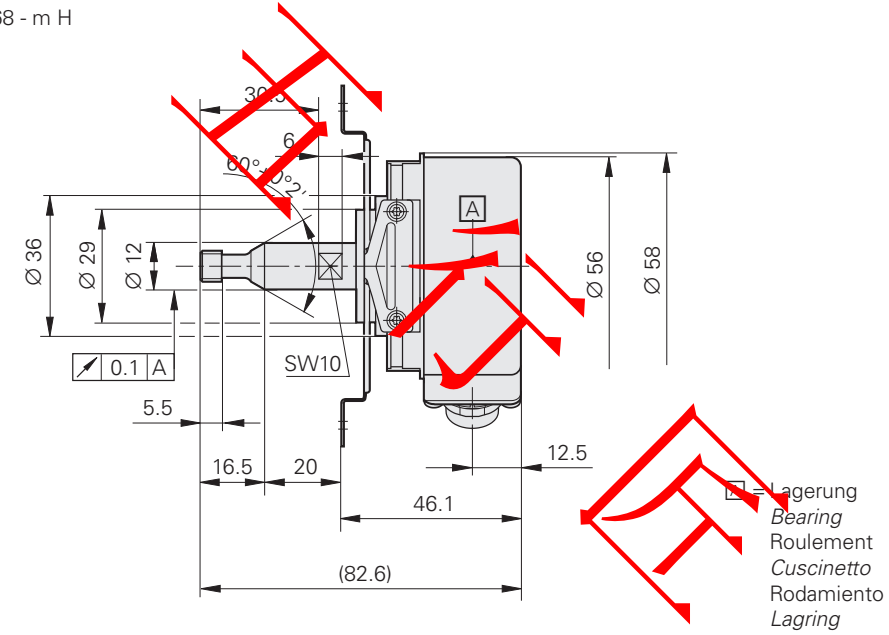


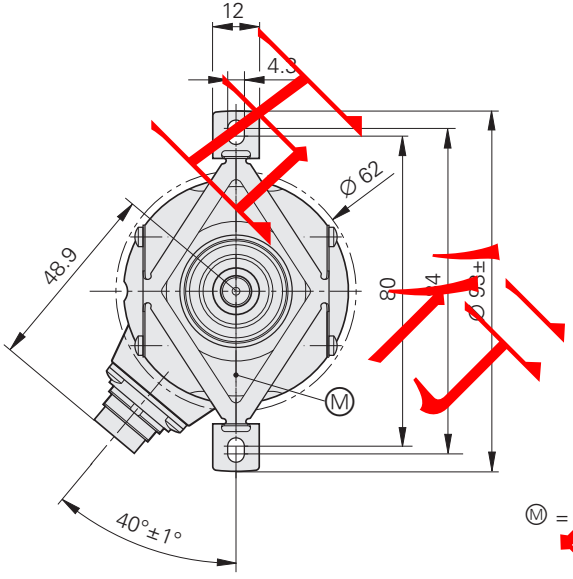


		Z				
519.70000.50.001	1XP8001-1	1024	839.40000.01	839.40001.01	—	517.30777.30
519.70000.50.002	1XP8001-1	1024	—	839.40001.02	—	517.30777.30
519.70000.50.003	1XP8001-2	1024	839.40000.01	839.40001.01	099.20586.01	517.30777.30
519.70000.50.004	1XP8001-1	1024	839.40000.01	839.40001.01	099.20586.01	517.30777.30
519.70000.50.005	1XP8001-1	2048	839.40000.01	839.40001.01	099.20586.01	517.30777.30
519.70000.50.006	1XP8001-1	2048	—	839.40001.02	—	517.30777.30
519.70000.50.007	1XP8001-2	1024	—	839.40001.02	—	517.30777.30

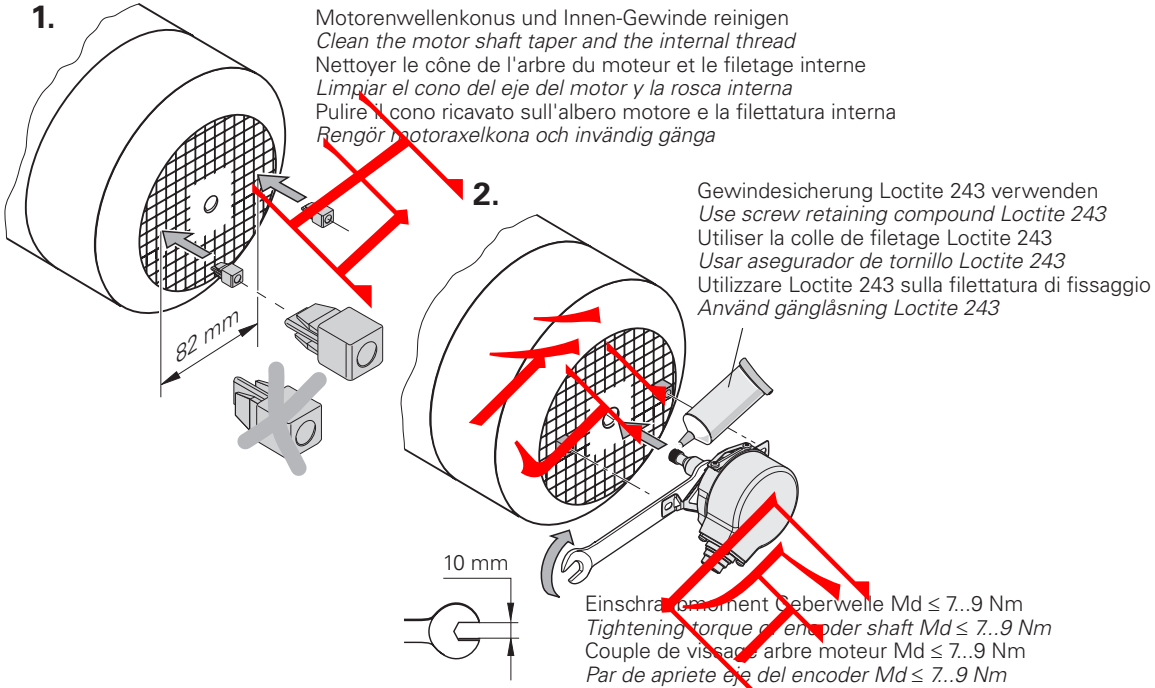
mm

DIN ISO 8015
ISO 2768 - m H

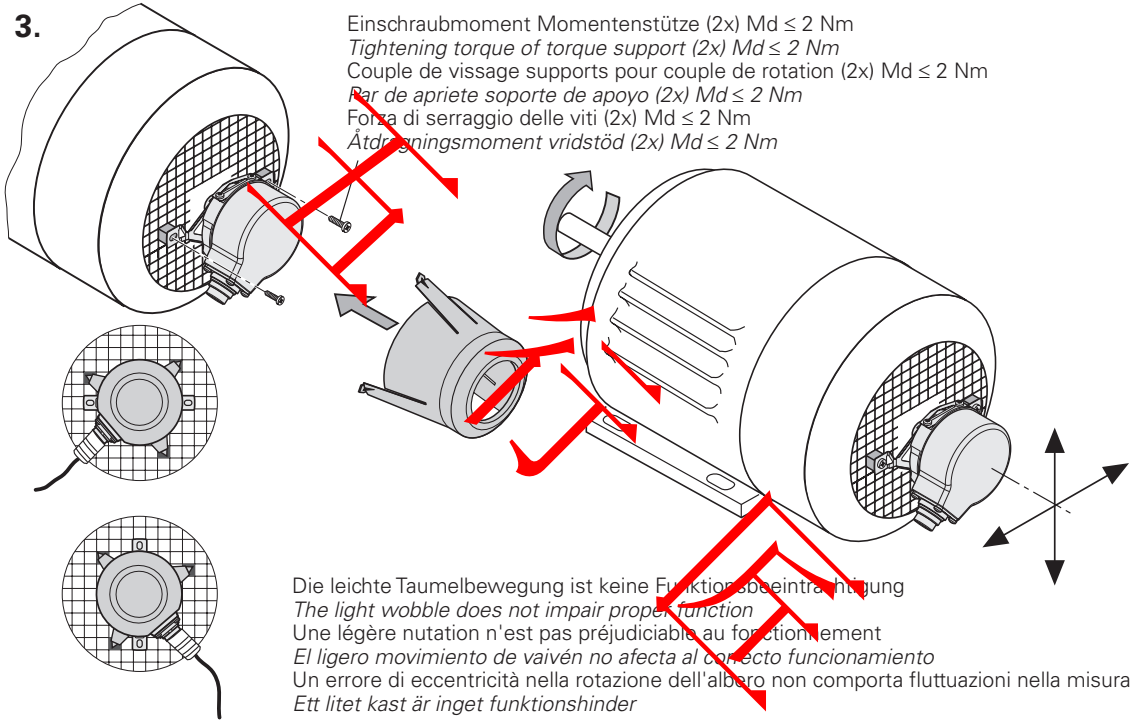




Ⓜ = Messpunkt Arbeitstemperatur
Measuring point for operating temperature
Point de mesure température de travail
Punto di misura – temperatura di esercizio
Punto de medición de la temperatura de trabajo
Mätpunkt för arbetsteperatur


1.
Motorenwellenkonus und Innen-Gewinde reinigen
Clean the motor shaft taper and the internal thread
Nettoyer le cône de l'arbre du moteur et le filetage interne
Limpiar el cono del eje del motor y la rosca interna
Pulire il cono ricavato sull'albero motore e la filettatura interna
Rengör motoraxelkona och invändig gänga
2.
Gewindesicherung Loctite 243 verwenden
Use screw retaining compound Loctite 243
Utiliser la colle de filetage Loctite 243
Usar asegurador de tornillo Loctite 243
Utilizzare Loctite 243 sulla filettatura di fissaggio
Använd gänglåsning Loctite 243
82 mm
10 mm
Einschraubmoment Geberwelle Md ≤ 7...9 Nm
Tightening torque of encoder shaft Md ≤ 7...9 Nm
Couple de vissage arbre moteur Md ≤ 7...9 Nm
Par de apriete eje del encoder Md ≤ 7...9 Nm
Forza di serraggio dell'albero dell'encoder Md ≤ 7...9 Nm
Åtdragningsmoment givaraxel Md ≤ 7...9 Nm

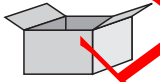
3.



Einschraubmoment Momentenstütze (2x) Md ≤ 2 Nm
Tightening torque of torque support (2x) Md ≤ 2 Nm
Couple de vissage supports pour couple de rotation (2x) Md ≤ 2 Nm
Par de apriete soporte de apoyo (2x) Md ≤ 2 Nm
Forza di serraggio delle viti (2x) Md ≤ 2 Nm
Åtdragningsmoment vridstöd (2x) Md ≤ 2 Nm

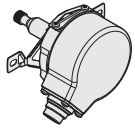
Die leichte Taumelbewegung ist keine Funktionsbeeinträchtigung
The light wobble does not impair proper function
Une légère nutation n'est pas préjudiciable au fonctionnement
El ligero movimiento de vaivén no afecta al correcto funcionamiento
Un errore di eccentricità nella rotazione dell'albero non comporta fluttuazioni nella misura
Ett litet kast är inget funktionshinder

°C
(°F)

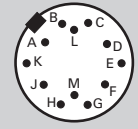


0 ... 80 °C
(–40 ... 176 °F)

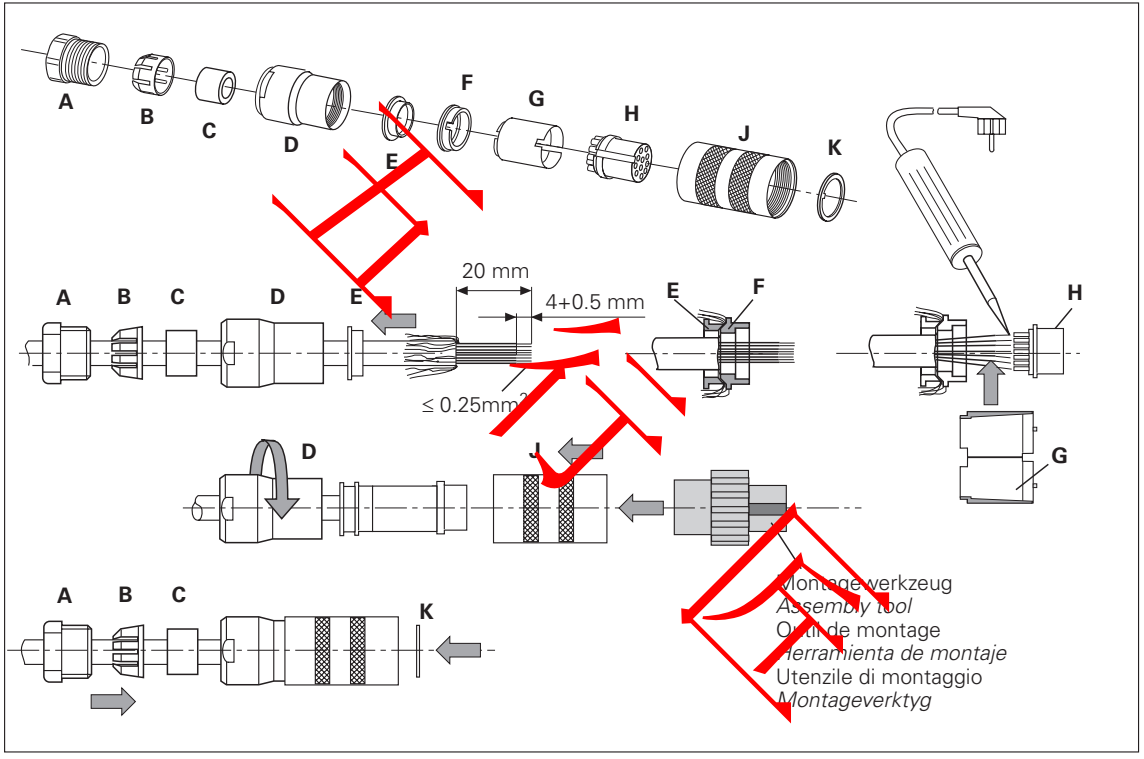
UL certification
File no. E197018

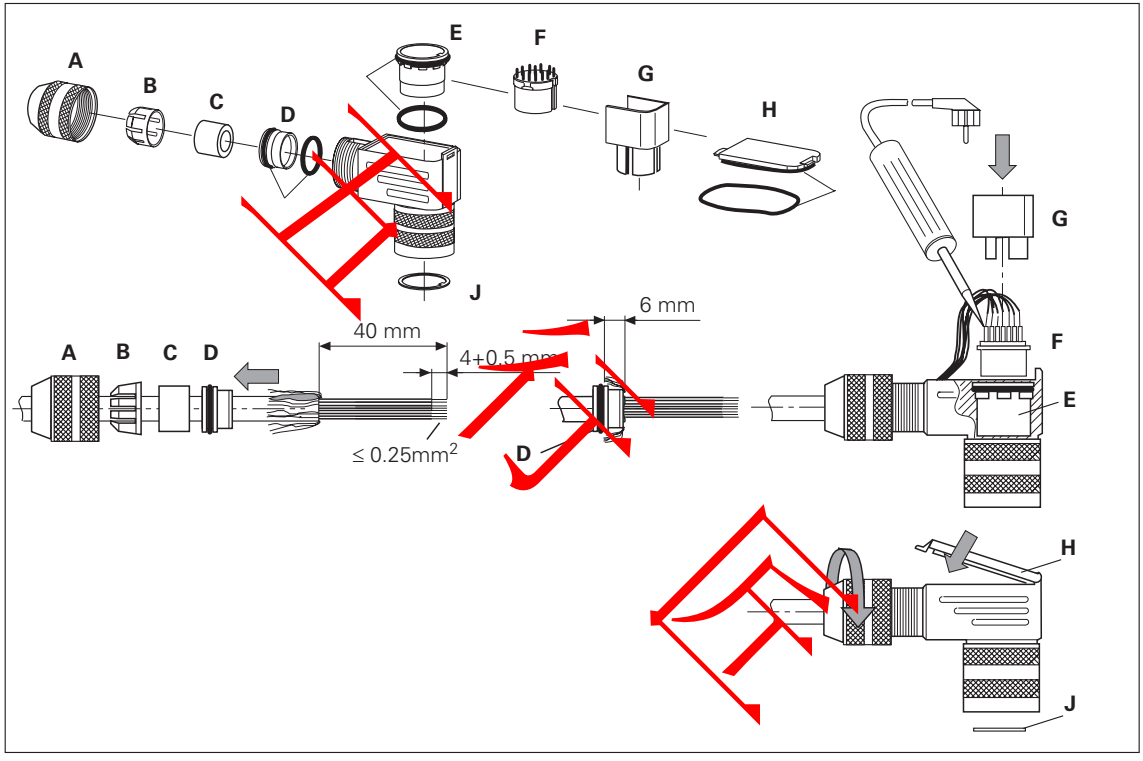


1XP8001-1 / U_P = 10 ... 30 V
1XP8001-2 / U_P = 5 V ± 10 %

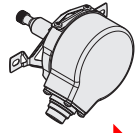


A	B	C	D	E	F	G	H	Schirm *Shield* Blindage *Blindaje* Schermo *Skärm*	K	L	M
$\overline{U_{a2}}$	U_P	U_{a0}	$\overline{U_{a0}}$	U_{a1}	$\overline{U_{a1}}$	$\overline{U_{aS}}$	U_{a2}		0 V	0 V	U_P


A
B
C
D
E
F
G
H
J
K
20 mm
4+0.5 mm
≤ 0.25mm²
Montage-werkzeug
Assembly tool
Outil de montage
Herramienta de montaje
Utenzile di montaggio
Montageverktyg


A
B
C
D
E
F
G
H
J
40 mm
4+0.5 mm
6 mm
≤ 0.25mm²

1XP8001-1



L ≤ 200 m U_P = 12.75 ... 15.75 V (max. 200 mA, U_{a1}, U_{a2}, U_{a0}, $\overline{U_{aS}}$)

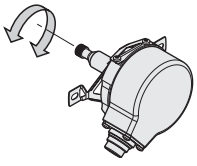
L ≤ 300 m U_P = 10 ... 30 V (max. 350 mA, U_{a1}, U_{a2}, U_{a0} $\overline{U_{a1}}$, $\overline{U_{a2}}$, $\overline{U_{a0}}$, $\overline{U_{aS}}$)

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

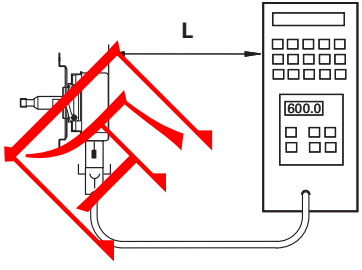
$$n\,[\mathrm{min}^{-1}] \le \frac{f_{max}\,[\mathrm{kHz}]}{Z} \cdot 10^3 \cdot 60\ \mathrm{min}^{-1}$$

- **L** ≤ 100 m f_{max} ≤ 160 kHz (U_{a1}, U_{a2}, U_{a0}, $\overline{U_{aS}}$)
- **L** ≤ 200 m f_{max} ≤ 120 kHz (U_{a1}, U_{a2}, U_{a0}, $\overline{U_{aS}}$)
- **L** ≤ 300 m f_{max} ≤ 160 kHz (U_{a1}, U_{a2}, U_{a0}, $\overline{U_{a1}}$, $\overline{U_{a2}}$, $\overline{U_{a0}}$, $\overline{U_{aS}}$)

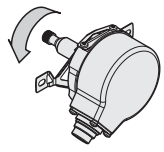
Z = Strichzahl
Line count
Nombre de traits
Numero de impulsos
Numero di impulsi
Polser



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



1XP8001-1

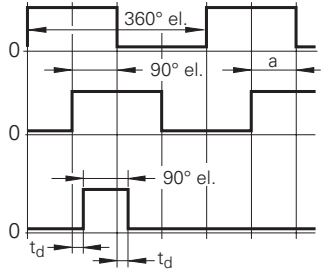


U_{a1}, U_{a2}, U_{a0}

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

Strichzahl
Line count
Nombre de traits
Numero de impulsos
Numero di impulsi
Polser

1024



a ≥ 0.43 µs

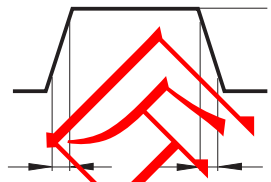
t_d ≤ 50 ns

HTL

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

$\overline{U_{aS}}$ **= High:** ✓

$\overline{U_{aS}}$ **= Low:** ⚠



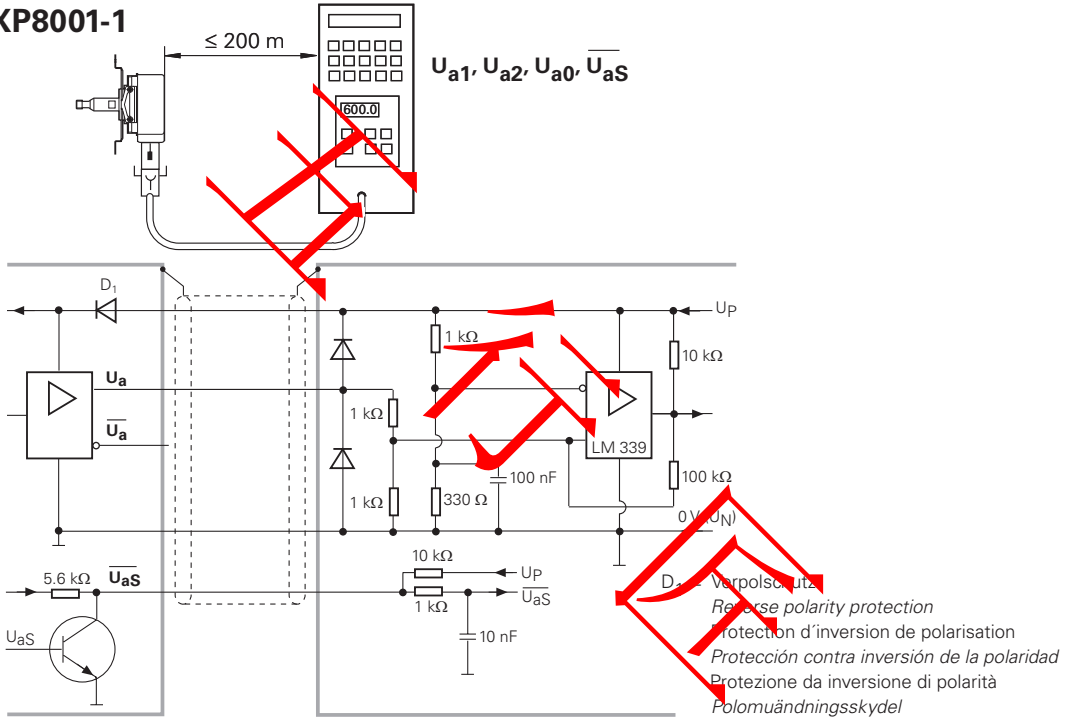
$U_{H\ typ}$ ≥ [U_P – 2,5 V]
(–I_H = 20 mA)

$U_{L\ typ}$ ≤ 1.6 V
(I_L = 20 mA)

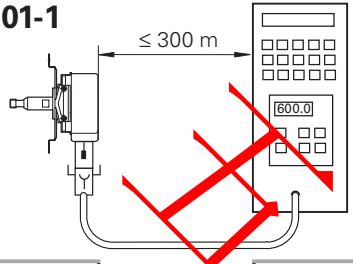
–$I_{H\ max}$ = 100 mA

$I_{L\ max}$ = 100 mA

1XP8001-1

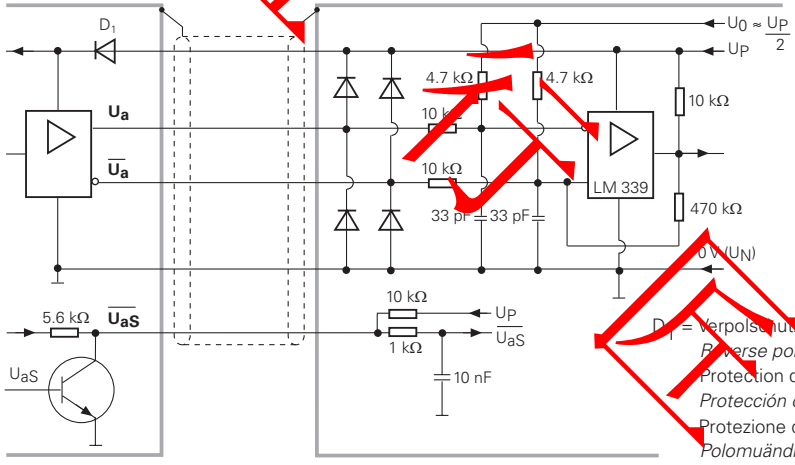

≤ 200 m
600.0
U_{a1}, U_{a2}, U_{a0}, $\overline{U_{aS}}$
D1
Ua
$\overline{U_a}$
1 kΩ
1 kΩ
1 kΩ
330 Ω
100 nF
LM 339
UP
10 kΩ
100 kΩ
0 V (UN)
10 kΩ
UP
1 kΩ
$\overline{U_{aS}}$
10 nF
5.6 kΩ
$\overline{U_{aS}}$
UaS
D1 = Verpolschutz
Reverse polarity protection
Protection d´inversion de polarisation
Protección contra inversión de la polaridad
Protezione da inversione di polarità
Polomuändningsskydel

1XP8001-1



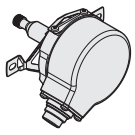
U_{a1}, U_{a2}, U_{a0}

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



D1 = Verpolschutz
Reverse polarity protection
Protection d´inversion de polarisation
Protección contra inversión de la polaridad
Protezione da inversione di polarità
Polomuändningsskydel

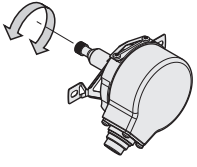
1XP8001-2



U_{DD} = 5 V ± 10 % (max. 150 mA)

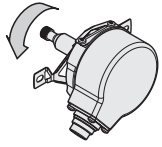
EN 50 178/4.98; 5.2.9.5
IEC 364-4-41: 1992; 411(PELV/SELV)

$$n\ [min^{-1}] \leq \frac{300\ [kHz]}{Z} \cdot 10^3 \cdot 60\ min^{-1} \leq 6\ 000\ min^{-1}$$



Z = Strichzahl
Line count
Nombre de traits
Numero de impulsos
Numero di impulsi
Polser

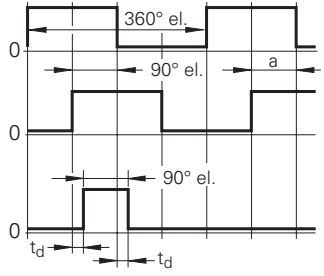
1XP8001-2



U_{a1}, U_{a2}, U_{a0}

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

Strichzahl
Line count
Nombre de traits
Numero de impulsos
Numero di impulsi
Polser
} 1024



$a \geq 0.43$ µs

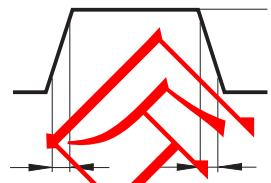
$t_d \leq 50$ ns

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

$\overline{U_{aS}}$ = High: ✓

$\overline{U_{aS}}$ = Low: ⚠

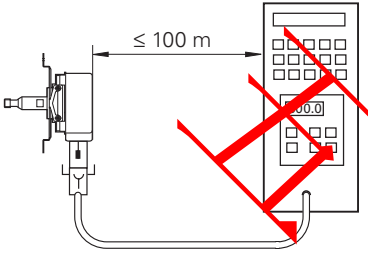
TTL

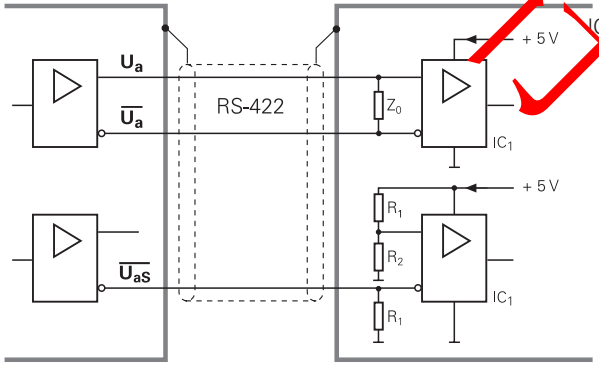


$U_H \geq 2.5$ V ($-I_H \leq 20$ mA)

$U_L \leq 0.5$ V ($I_L \leq 20$ mA)

1XP8001-2





IC_1 = Differenzleitungsempfänger nach RS 422
Differential line receiver as per RS 422
Récepteur différentiel de ligne selon RS 422
Ricevitore di linea differenziale secondo RS 422
Receptor de la tensión diferencial según RS 422
Differenslemningsmottagare efter RS 422

R_1 = 4.7 kΩ
R_2 = 1.8 kΩ
Z_0 = 120 Ω

AM 26 LS 32
MC 3486
SN 75 ALS 193

Geschäftsgebiet **Automation & Drives**
Geschäftszweig **Standard Drives**
D-97615 Bad Neustadt an der Saale

Siemens Aktiengesellschaft

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