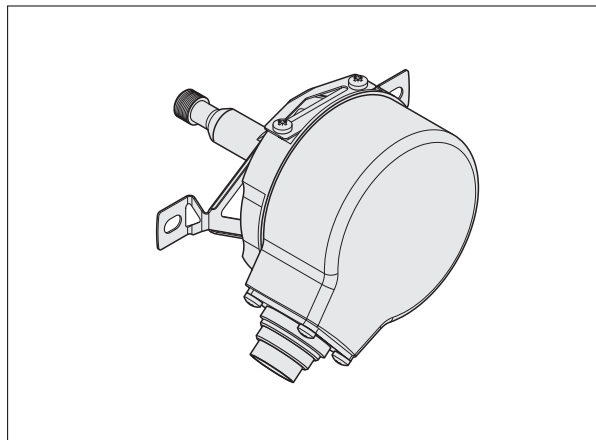


SIEMENS

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

1XP8001-1
1XP8001-2

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



5/2006

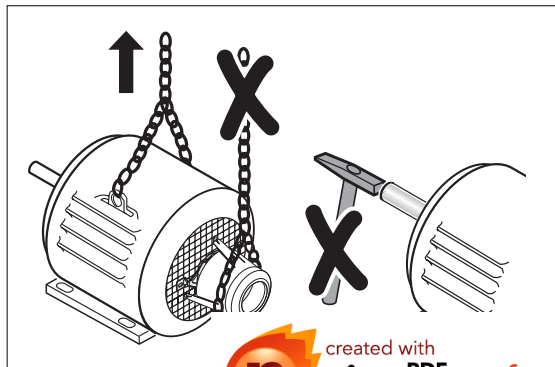
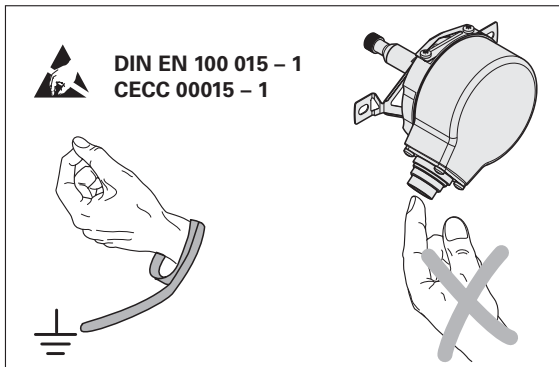
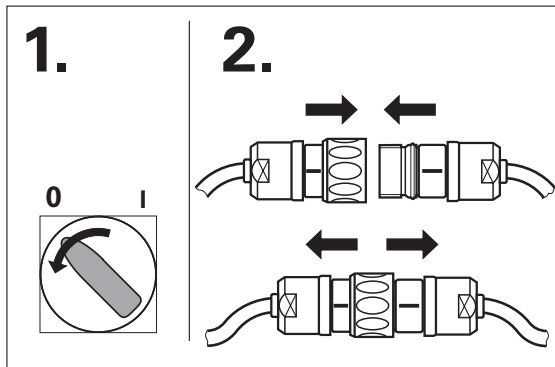
© Siemens AG 1994 All Rights Reserved

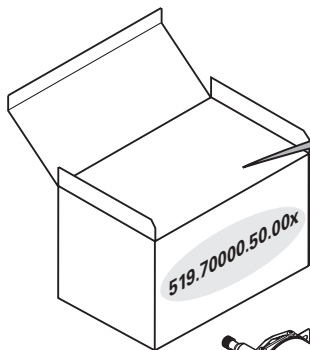
Bestell
DEUTSCH / EN

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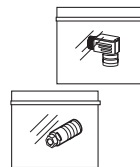
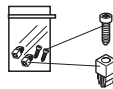
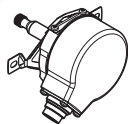


Maße in mm
Dimensions in mm
Cotes en mm
Dimensioni in mm
Dimensiones en mm
Dimensioner i mm





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



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

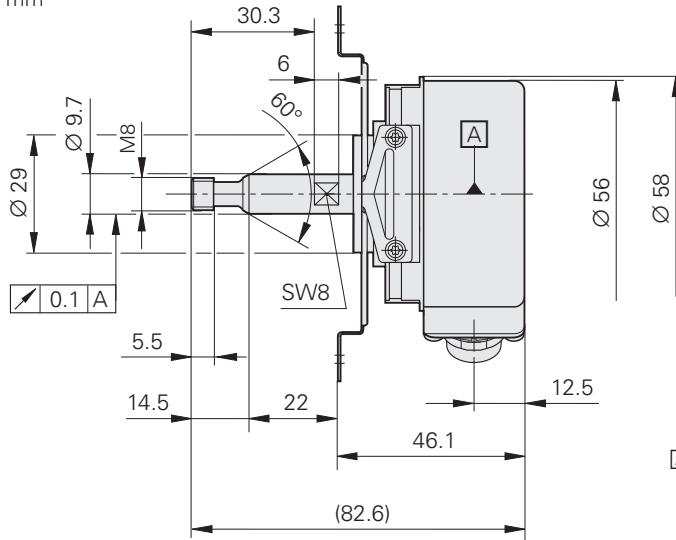
mm



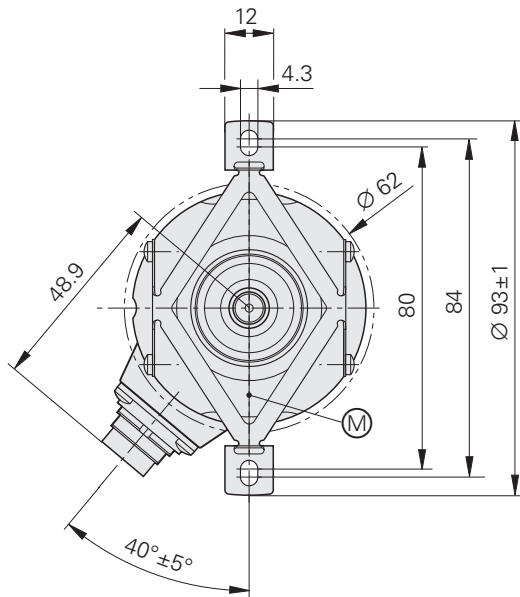
Tolerancing ISO 8015

ISO 2768 - m H

< 6 mm: ± 0.2 mm

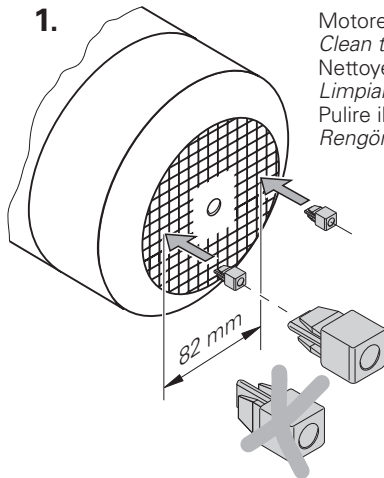


[A] = Lagerung
Bearing
Roulement
Cuscinetto
Rodamiento



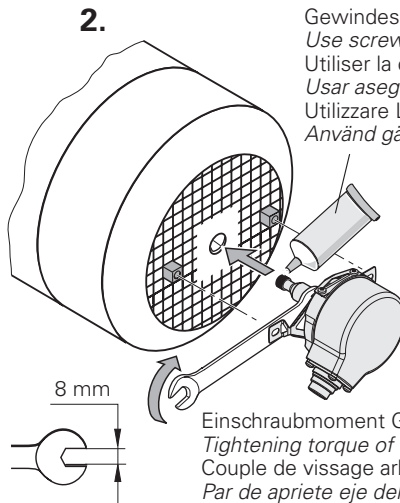
Ⓜ = Messpunkt Arbeitstemperatur
Measuring point for operating temperature
Point de mesure température de travail
Punto di misura – temperatura di esercizio
Punto de medición de la temperatura de trabajo
Mätppunkt

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

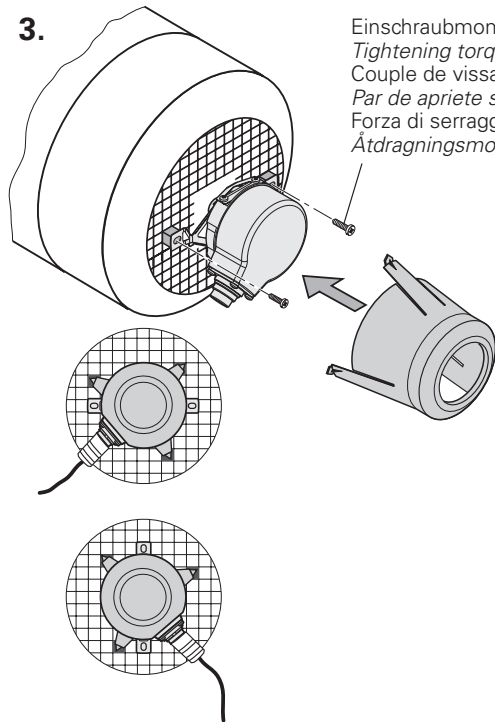
2.



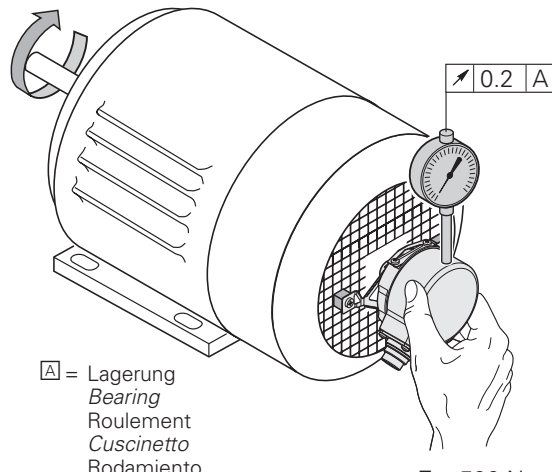
Gewindesicherung Loctite 243 verwenden
Use screw retaining compound Loctite 243
Utiliser la colle de filetage Loctite 243
Usar asegurador de tornillo Loctite 243
Utilizzare Loctite 243 sulla filettatura di fissaggio
Använd gänglåsning Loctite 243

Einschraubmoment Geberwelle $M_d \leq 8 \pm 1 \text{ Nm}$
Tightening torque of encoder shaft $M_d \leq 8 \pm 1 \text{ Nm}$
Couple de vissage arbre moteur $M_d \leq 8 \pm 1 \text{ Nm}$
Par de apriete eje del encoder $M_d \leq 8 \pm 1 \text{ Nm}$
Forza di serraggio
Åtdragningsmome

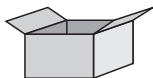
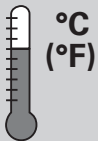
3.



Einschraubmoment Momentenstütze (2x) $M_d \leq 2 \text{ Nm}$
Tightening torque of torque support (2x) $M_d \leq 2 \text{ Nm}$
Couple de vissage supports pour couple de rotation (2x) $M_d \leq 2 \text{ Nm}$
Par de apriete soporte de apoyo (2x) $M_d \leq 2 \text{ Nm}$
Forza di serraggio delle viti (2x) $M_d \leq 2 \text{ Nm}$
Åtdragningsmoment vridstöd (2x) $M_d \leq 2 \text{ Nm}$

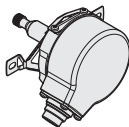


A = Lagerung
Bearing
Roulement
Cuscinetto
Rodamiento
Kullager

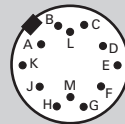


-40 ... 80 °C
(-40 ... 176 °F)

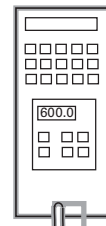
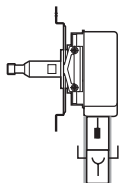
UL certification
File no. E197018



1XP8001-1 / $U_P = 10 \dots 30 \text{ V}$
 1XP8001-2 / $U_P = 5 \text{ V} \pm 10 \%$

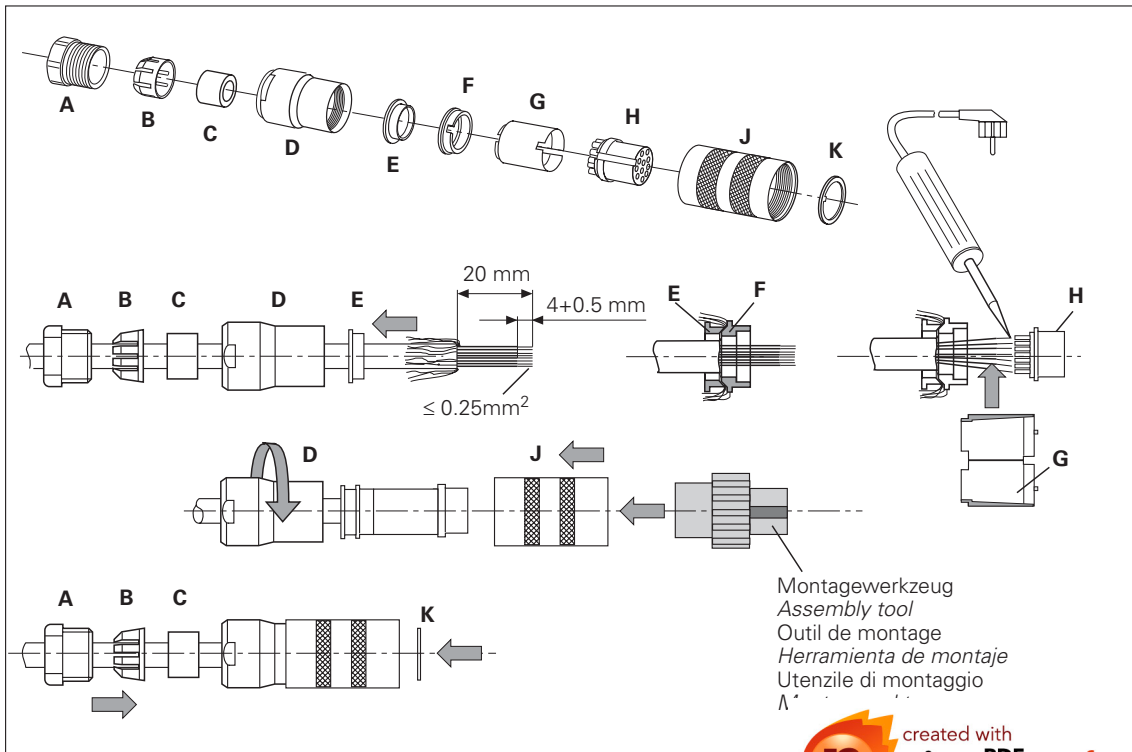


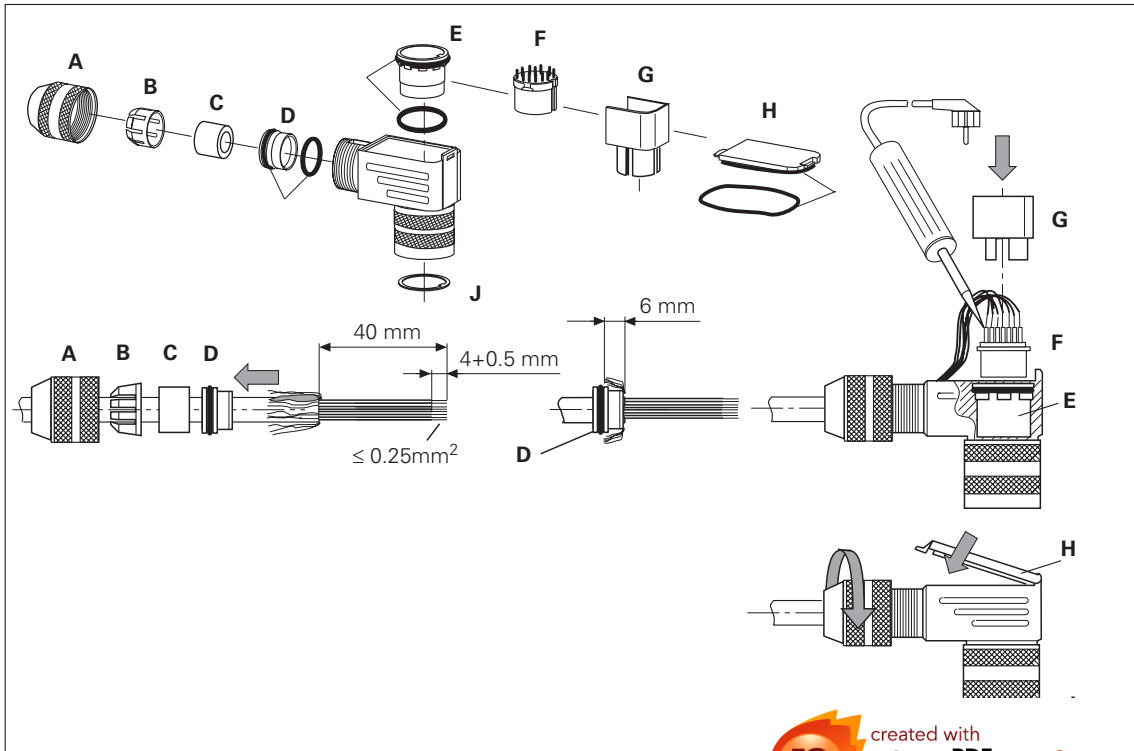
A	B	C	D	E	F	G	H	Schirm Shield Blindage Blindaje Schermo Skärm	K	L	M
$\overline{U_{a2}}$	U_P	U_{a0}	$\overline{U_{a0}}$	U_{a1}	$\overline{U_{a1}}$	$\overline{U_{aS}}$	U_{a2}		0V	0V	U_P



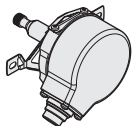
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1XP8001-1



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

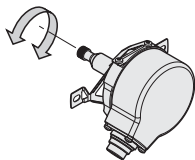
$L \leq 300 \text{ m}$ $U_P = 10 \dots 30 \text{ V}$ (max. 350 mA, U_{a1} , U_{a2} , U_{a0} , $\overline{U_{a1}}$, $\overline{U_{a2}}$, $\overline{U_{a0}}$, $\overline{U_{aS}}$)



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

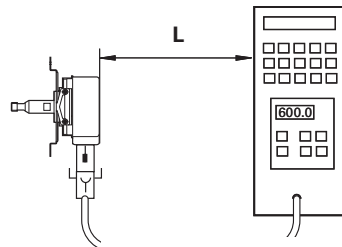
$$n [\text{min}^{-1}] \leq \frac{f_{\text{max}} [\text{kHz}]}{Z} \cdot 10^3 \cdot 60 \text{ min}^{-1} \begin{cases} L \leq 100 \text{ m} & f_{\text{max}} \leq 160 \text{ kHz} (U_{a1}, U_{a2}, U_{a0}, \overline{U_{aS}}) *) \\ L \leq 200 \text{ m} & f_{\text{max}} \leq 100 \text{ kHz} (U_{a1}, U_{a2}, U_{a0}, \overline{U_{aS}}) *) \\ L \leq 300 \text{ m} & f_{\text{max}} \leq 100 \text{ kHz} (U_{a1}, U_{a2}, U_{a0}, \overline{U_{a1}}, \overline{U_{a2}}, \overline{U_{a0}}, \overline{U_{aS}}) \end{cases}$$

*) max. 15 V, $T < 70 \text{ }^\circ\text{C}/158 \text{ }^\circ\text{F}$

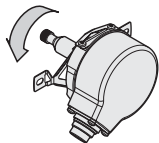


Z = Strichzahl
Line count
Nombre de traits
Numero de impulsos
Numero di impulsi
Polser

f_{max} = Abtastfrequenz
Scanning frequency
Fréquence de balayage
Frequenza di scansione
Frecuencia de captación
Avkänningsfrekvens



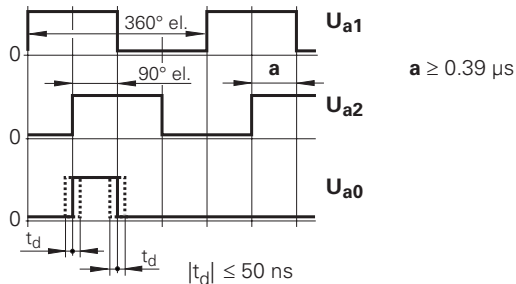
1XP8001-1



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

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

} 1024

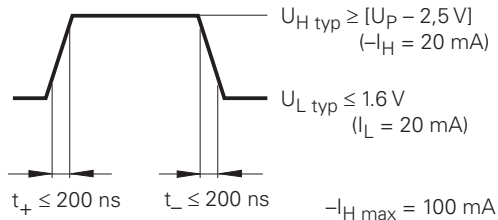


$\overline{U_{aS}}$: Störungssignal
 Fault detection signal
 Signal de perturbation
 Señal de avería
 Segnale di malfunzionamento
 Störsignal

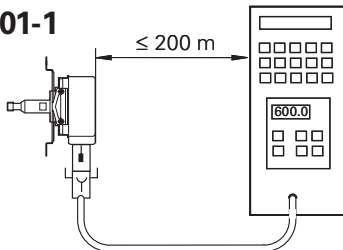
$\overline{U_{aS}} = \text{High}$: ✓

$\overline{U_{aS}} = \text{Low}$:

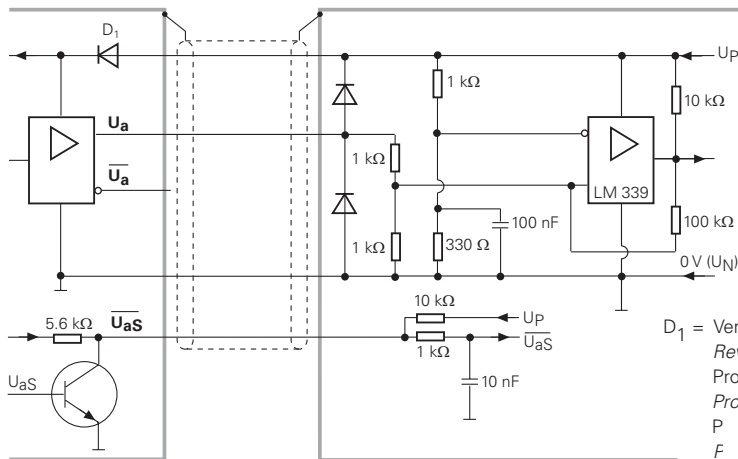
HTL



1XP8001-1

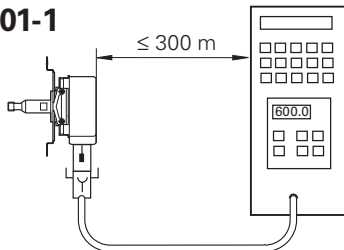


$U_{a1}, U_{a2}, U_{a0}, \overline{U_{aS}}$

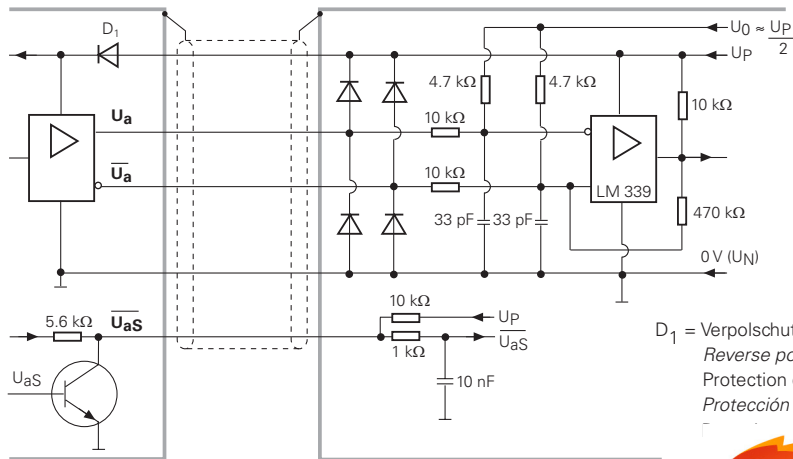


D_1 = Verpolschutz
 Reverse polarity protection
 Protection d'inversion de polarisation
 Protección contra inversión de la polaridad
 Protection contre l'inversion de polarité
 F

1XP8001-1

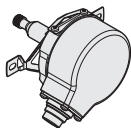


U_{a1}, U_{a2}, U_{a0}
 $\overline{U_{a1}}, \overline{U_{a2}}, \overline{U_{a0}}, \overline{U_{aS}}$



D_1 = Verpolschutz
 Reverse polarity protection
 Protection d'inversion de polarisation
 Protección contra inversión de la polaridad

1XP8001-2

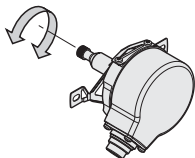


U_p = 5 V ± 10 % (max. 150 mA)



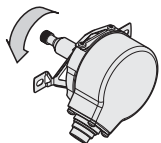
EN 50 178/4.98; 5.2.9.5
IEC 364-4-41: 1992; 411(PELV/SELV)

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



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

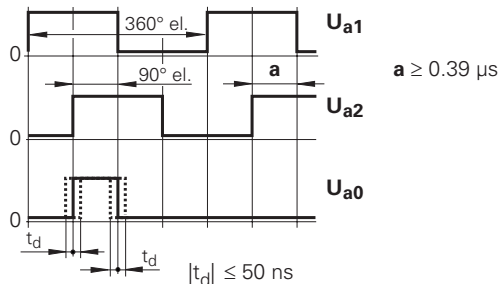
1XP8001-2



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

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

} 1024

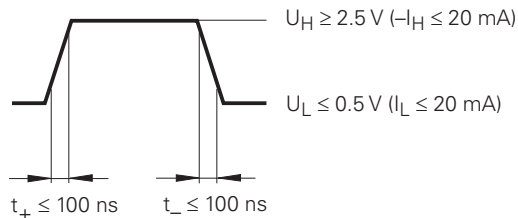


$\overline{U_{aS}}$: Störungssignal
 Fault detection signal
 Signal de perturbation
 Señal de avería
 Segnale di malfunzionamento
 Störsignal

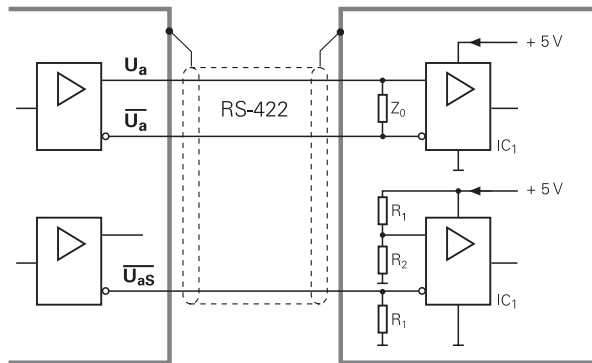
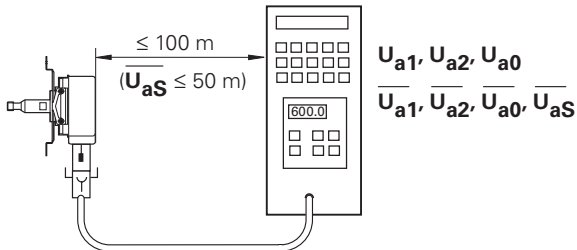
$\overline{U_{aS}} = \text{High}$: ✓

$\overline{U_{aS}} = \text{Low}$: ⚠

TTL



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
 Differenzledningsmottagare efter RS 422

$R_1 = 4.7 \text{ k}\Omega$
 $R_2 = 1.8 \text{ k}\Omega$
 $Z_0 = 120 \text{ }\Omega$

AM 26 LS 32
 MC 3486
 SN 75 ALS 1

Siemens AG

Automation & Drives

Standard Drives

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