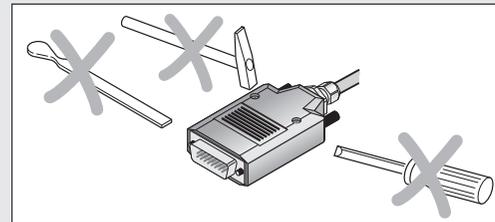
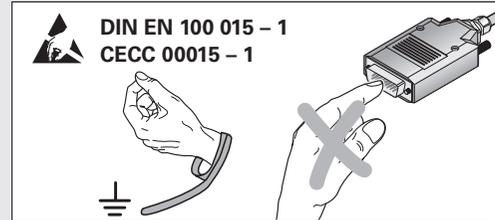
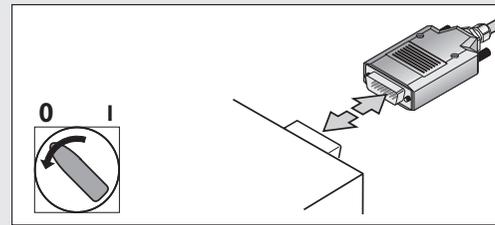
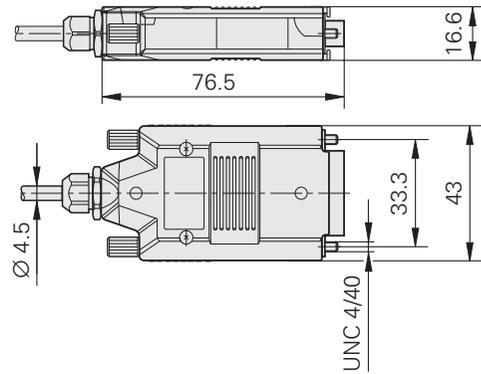


mm  
  
 Tolerancing ISO 8015  
 ISO 2768 - m H  
 < 6 mm: ±0.2 mm

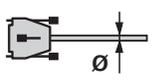
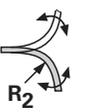
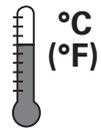
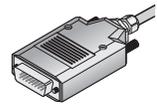


# HEIDENHAIN

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

## APE 391 M

3/2003

				
Ø 4.5 mm	R <sub>1</sub> ≥ 10 mm	R <sub>2</sub> ≥ 50 mm	0 ... 70 °C (32 ... 158 °F)	-30 ... 70 °C (-22 ... 158 °F)

**DR. JOHANNES HEIDENHAIN GmbH**  
 Dr.-Johannes-Heidenhain-Straße 5  
 83301 Traunreut, Germany  
 ☎ +49 (8669) 31-0  
 📠 +49 (8669) 50 61  
 E-Mail: info@heidenhain.de

**Technical support** 📠 +49 (8669) 32-10 00  
**Measuring systems** ☎ +49 (8669) 31-31 04  
 E-Mail: service.ms-support@heidenhain.de  
**TNC support** ☎ +49 (8669) 31-31 01  
 E-Mail: service.nc-support@heidenhain.de  
**NC programming** ☎ +49 (8669) 31-31 03  
 E-Mail: service.nc-pgm@heidenhain.de  
**PLC programming** ☎ +49 (8669) 31-31 02  
 E-Mail: service.plc@heidenhain.de  
**Lathe controls** ☎ +49 (8669) 31-31 05  
 E-Mail: service.lathe-support@heidenhain.de

[www.heidenhain.de](http://www.heidenhain.de)



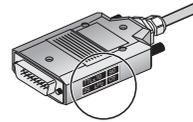
# APE 391 M

## Mitsu01: MITSUBISHI

Datenschnittstelle  
Data interface  
Interface de données  
Interfaccia  
Interfaz de datos

Encoder ID  
Encoder ID  
Réf. capteur  
ID encoder  
ID encoder

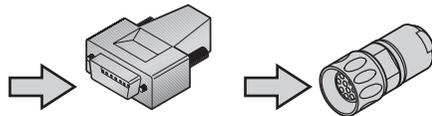
Mitsu01 C2  
1024 ....



Strichzahl  
Line count  
Nombre de traits  
Impulsi  
Número de impulsos

Grundabstand der Referenzmarken  
Nominal increment of the reference marks  
Distance entre marques de référence  
Distanza degli indici di riferimento  
distancia básica de las marcas de referencia

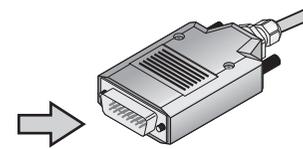
max. Eingangsfrequenz 400 kHz  
Max. input frequency 400 kHz  
Fréquence d'entrée max. 400 kHz  
Massima frequenza di ingresso 400 kHz  
Máx. frecuencia de entrada 400 kHz



	5	6	8	1	3	4	12	10	2	11	7,9
	1	9	3	11	14	7	4	2	12	10	5, 6, 8, 13, 15
	A		B		R		5V U <sub>P</sub>	0V U <sub>N</sub>	5V sensor	0V sensor	/
	+	-	+	-	+	-					

Schirm auf Gehäuse  
Shield on housing  
Blindage sur le boîtier  
Schermo sulla carcassa  
Blindaje a carcasa

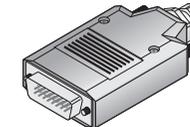
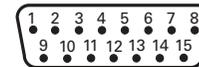
U<sub>P</sub> = 5 V ± 5 %  
(max. 160 mA)



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)



Elektronik im Stecker  
Electronics in connector  
Electronique intégrée dans la prise  
Elettronica nel connettore  
Electrónica en el conector



Schirm auf Gehäuse  
Shield on housing  
Blindage sur boîtier  
Schermo sulla carcassa  
Blindaje a carcasa

1	9	3	11	14	7	4	2	12	10	5	13	8	15	6
A *)	B *)		R *)		5V U <sub>P</sub>	0V U <sub>N</sub>	5V sensor	0V sensor	Serial Data	Serial Data	Request Frame	Request Frame	/	
+	-	+	-	+	-									

\*) nur für Abgleichzwecke, im Normalbetrieb nicht belegen  
Only for trimming purposes; do not assign in normal operation  
Seulement pour l'alignement; ne pas raccorder pour le fonctionnement normal  
Solo per compensazione, non occupare nel funzionamento normale  
Usar sólo para fines de ajuste, no utilizar durante el funcionamiento normal

