Mitsubishi







| -5R | 20 | 19 | 1 | 11 | 6 | 16 | 7 | 17 |
|-----|----|--------------|-----|--------|--------|------|-------|---------|
| -0D | 7 | 1 | 10 | 4 | 14 | 17 | 8 | 9 |
| | Up | Sensor Up | 0 V | Sensor | Serial | | | Request |
| | •— | • | •— | U V | Data | Data | Frame | Frame |

101









| -B4 | 9 | 18/20 | 12 | 14 | 1 | 2 | 5 | 6 | 16 |
|-----|----|--------|-----|--------|--------|--------|---------|---------|-----|
| -0D | 7 | 1 | 10 | 4 | 14 | 17 | 8 | 9 | / |
| | Up | Sensor | 0 V | Sensor | Serial | Sprial | Request | Request | |
| | • | Up | •— | 0 V | Data | Data | Hoquoot | noquest | **) |

**) Außenschirm · External shield · Blindage externo · Schermo esterno · Blindaje externo

0BB015-H8





TTL für Fanuc-Steuerung
TTL for Fanuc control
TTL pour commande FANUC
TTL per controlli FANUC
TTL para control numérico FANUC

| 9 | 18/20 | 12 | 14 | 1 | 2 | 3 | 4 | 5 | 6 | 16 |
|---------|--------------|------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----|
| Up • | Sensor Up | 0 V | Sensor 0 V | U _{a1} | U _{a1} | U _{a2} | U _{a2} | U _{a0} | U _{a0} | **) |
| BNGN | BU | WHGN | WH | BN | GN | GY | PK | RD | BK | / |

**) Außenschirm · External shield · Blindage externo · Schermo esterno · Blindaje externo

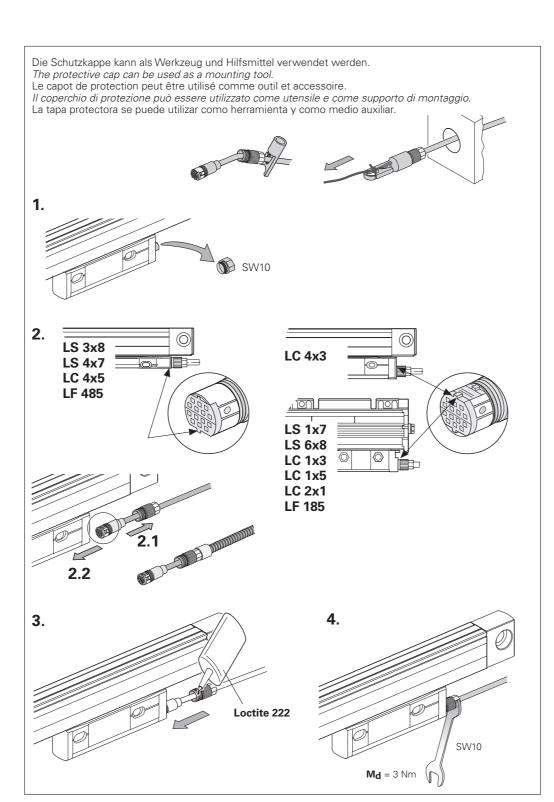
Siemens

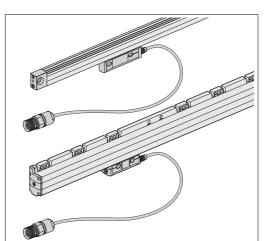


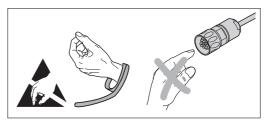




| Α | В | 3 | 6 | 1 | 2 |
|----|-----|-----|-----|-----|-----|
| 1 | 5 | 7 | 6 | 3 | 4 |
| Up | 0 V | TXP | TXN | RXP | RXN |







HEIDENHAIN

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

Adapterkabel
Adapter cable
Câble adaptateur
Cavo adattatore
Cable adaptador
9/2012

CE

Anschlussbelegungen nur für Adapterkabel die in Katalogen aufgeführt sind.

Pin layouts only for adapter cables listed in the brochures.

Distribution des plots seulement pour les câbles adaptateurs cités dans ce catalogue.

Connessioni solo per cavi adattatori riportati sui cataloghi.

Conexionados sólo para cables adaptadores incluídos en los catálogos.

DR. JOHANNES HEIDENHAIN GmbH

Technical support, measuring systems @ +49 8669 31-3104 · E-mail: service.ms-support@heidenhain.de

590 084-92 · Ver02 · 9/2012



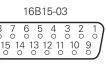
1V_{SS}/1V_{PP}













| 12 | 2 | 10 | 11 | 5 | 6 | 8 | 1 | 3 | 4 |
|----------------|--------------|------|---------------|----|----|----|----|----|----|
| 1 | 9 | 2 | 11 | 3 | 4 | 6 | 7 | 10 | 12 |
| U _P | Sensor Up | 0 V | Sensor 0 V | A+ | A- | B+ | B- | R+ | R- |
| BNGN | BU | WHGN | WH | BN | GN | GY | PK | RD | ВК |









| 12 | 2 | 10 | 11 | 5 | 6 | 8 | 1 | 3 | 4 | 7 |
|----------------|--------------|------|---------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| U _P | Sensor UP | 0 V | Sensor 0 V | U _{a1} | U _{a1} | U _{a2} | U _{a2} | U _{a0} | U _{a0} | U _{aS} |
| BNGN | BU | WHGN | WH | BN | GN | GY | PK | RD | ВК | VT |

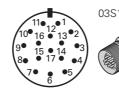
TTL



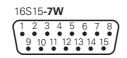


| 7 | 6 | 2 | 3 | 4 | 5 | 9 | 8 |
|----------------|------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|
| U _P | 0 V | U _{a1} | U _{a1} | U _{a2} | U _{a2} | U _{a0} | U _{a0} |
| BNGN | WHGN | BN | GN | GY | PK | RD | ВК |

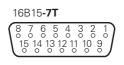
EnDat 02



| 7 | 1 | 10 | 4 | 15 | 16 | 12 | 13 | 14 | 17 | 8 | 9 | (11) |
|----------------|--------------|------|---------------|------|------------|------|------|------|------|-------|-------|------|
| U _P | Sensor Up | 0 V | Sensor 0 V | A+ | A – | B+ | B- | DATA | DATA | CLOCK | CLOCK | *) |
| BNGN | BU | WHGN | WH | GNBK | YEBK | BUBK | RDBK | GY | PK | VT | YE | , |









| -7W | 4 | 12 | 2 | 10 | 1 | 9 | 3 | 11 | 5 | 13 | 8 | 15 | (6) |
|-----|----------------|--------------|------|---------------|------|------------|------|------|------|------|-------|-------|------|
| -7T | 1 | 9 | 2 | 11 | 3 | 4 | 6 | 7 | 5 | 8 | 14 | 15 | (13) |
| | U _P | Sensor Up | 0 V | Sensor 0 V | A+ | A – | B+ | В- | DATA | DATA | СГОСК | CLOCK | *) |
| | BNGN | BU | WHGN | WH | GNBK | YEBK | BUBK | RDBK | GY | PK | VT | YE | |

*) Innenschirm im Adapterkabel nicht vorhanden. Bei Verlängerungskabel notwendig. There is no internal shield in the adapter cable. It is required with an extension cable. Blindage intérieur inexistant dans le câble adaptateur. Nécessaire pour câble prolongateur. Schermatura interna non disponibile. Necessaria per le prolunghe. Pantalla interna en el cable adaptador inexistente. Necesaria en el cable prolongador.

EnDat 22



| 8 | 2 | 5 | 1 | 3 | 4 | 7 | 6 |
|---------|--------------|------|---------------|------|------|-------|-------|
| Up • | Sensor UP | 0 V | Sensor 0 V | DATA | DATA | CLOCK | CLOCK |
| BNGN | BU | WHGN | WH | GY | PK | VT | YE |

Gültig für alle Anschlussbelegungen Applies for all pin layouts valable pour toutes les distributions des plots Valido per tutti I pin válido para todos los conexionados

Außenschirm mit Gehäuse verbunden External shield connected to housing Blindage extérieur connecté au boîtier Schermo del cavo collegato alla carcassa Apantallado exterior unido a la carcasa

Nichtverwendete Pins oder Litzen dürfen nicht belegt werden! Vacant pins or wires must not be used! Les plots ou fils non utilisés ne doivent pas être raccordés! I pin o i fili inutilizzati non devono essere occupati! ¡No conectar los pins o hilos no utilizados!

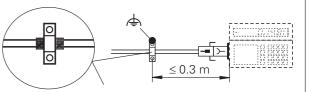
Die Sensorleitung ist intern im Messgerät mit der Versorgungsleitung verbunden. The sensor line is connected inside the encoder to the supply line.

La ligne de palpeur est reliée de manière interne dans le système de mesure à la ligne d'alimentation.

La linea del sensore è collegata internamente allo strumento di misura con la linea di alimentazione.

La línea de sensor está unida internamente en el aparato de medida con la línea de alimentación.

Fanuc:



Außenschirm · External shield · Blindage externe · Schermo esterno · Blindaje externo

| ø | Ø 4.5 mm | Ø 6.0 mm Ø 6.8 mm | Ø 10 mm |
|---|------------------------|------------------------|------------------------|
| $\begin{array}{c c} R_1 & R_1 \\ T \geq -40 ^{\circ}\text{C} \\ (-40 ^{\circ}\text{F}) \end{array}$ | R ₁ ≥ 10 mm | R ₁ ≥ 20 mm | R ₁ ≥ 35 mm |
| R ₂ T ≥ -10 °C (14 °F) R ₂ | R ₂ ≥ 50 mm | R ₂ ≥ 75 mm | R ₂ ≥ 75 mm |