Absolute rotary Encoder

# CDS582M*8192/65536 EPN NTS 10H7 + FS3

Order No.:CDS582M-00147
16.5.2023 / 010102158201020203

## Technical data

| | |
|---|---|
| STANDARD | EN 61508 |
| STANDARD | EN 61800-5-2 |
| STANDARD | EN 62061 / EN ISO 13849 |
| STANDARD | IEC 61800-5-3 |
| SAFETY | CDS582MD+FS03 EPN SIL3/PLe |
| NO.OF STEPS/REV | 8.192,000 |
| NO. OF REVOLUTIONS | 65.536,000 |
| SHAFT EXECUTION | (S) Blind shaft |
| FLANGE TYPE | SLOT FOR PIN D4 |
| SHAFT TYPE | 10H7 BLIND SHAFT |
| SUPPLY VOLTAGE | 10-30VDC |
| POWER DISSIPATION | < 3W |
| PROTECTION Class | IP67 |
| OPERATING TEMPERATURE | -40+85°C |
| OPTIONS ENC | "SEAL PACK" |
| OPTIONS ENC | CONFORMANCE CLASS C |
| OPTIONS ENC | IEC 61158 / IEC 61784-1 |
| OPTIONS ENC | Legacy-Profil |
| OPTIONS ENC | MOMENT SUPPORT PIN/GROOVE |
| OPTIONS ENC | PN Spec. 2.3 |
| OPTIONS ENC | PNO-PROFILE |
| OPTIONS ENC | PRESET VIA BUS |
| OPTIONS ENC | PROFIsafe-Profile V2.4 |
| OPTIONS ENC | PROFIsafe-Profile V2.6.1 |
| OPTIONS ENC | TR-Profil |
| OPTIONS ENC | VELOCITY |
| INTERFACE | PROFINET/PROFISAFE |
| CONNECTOR TYPE | 1X4P.M12-CONNECTOR (A-COD) |
| CONNECTOR TYPE | 2X4P.M12-FEMALE (D-COD) |
| CONNECTOR-POSITION | RADIAL |
| PINOUT NO. | TR-ECE-TI-DGB-0323 |
| DRAWING NO. | 04-CDS582M-M0001 |
| VERSIONNO | 000 |
| MATING PLUG | NO |
| DOCUMENTATION NO | DOKUMENTE |
| AL: | N |
| ECCN: | N |
| UL-APPROVALS | USA+CANADA |

| | |
|---|---|
| **GL** | Wellenausführung glatt / shaft type cylindrical |
| **FL** | Wellenausführung mit Fläche / shaft type with flat surface |
| **N** | Wellenausführung mit Nut / shaft type with slot |
| **Hohlw** | Hohlwelle / hollow shaft |
| **Klemme** | mit Klemmring / with clamping ring |
| **Grundw** | Grundwelle / fundamental shaft |
| **SLG** | Seillängengeber / cable retractor |
| **ZB** | Zentrierbund / centre ring |
| **Tachofl** | Tachoflansch / tachometer flange |
| **DAG** | DAG-Schutzgehäuse / DAG protective housing |
| **TK** | Teilkreis / pitch circle |

**Subject to change.**

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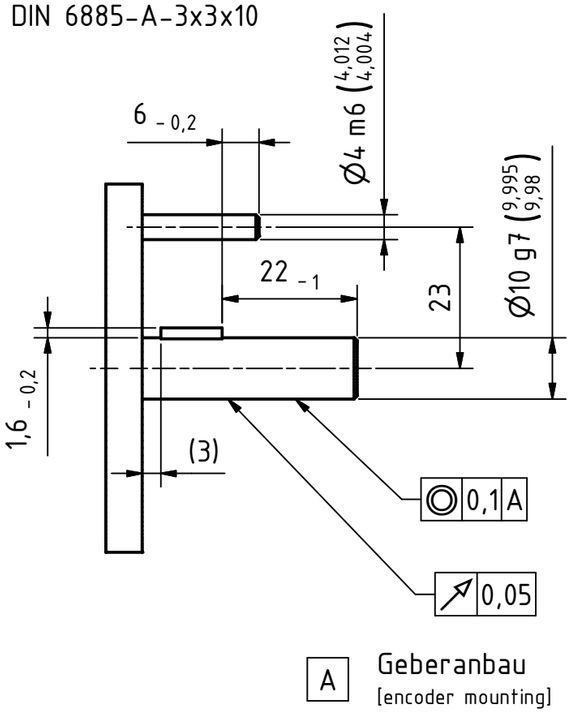
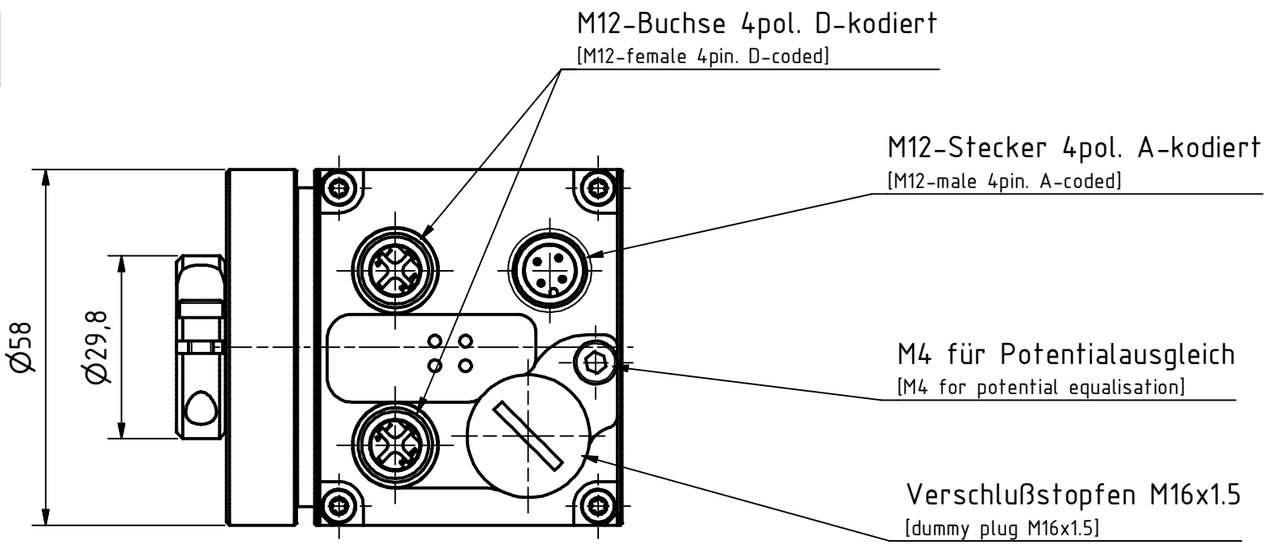
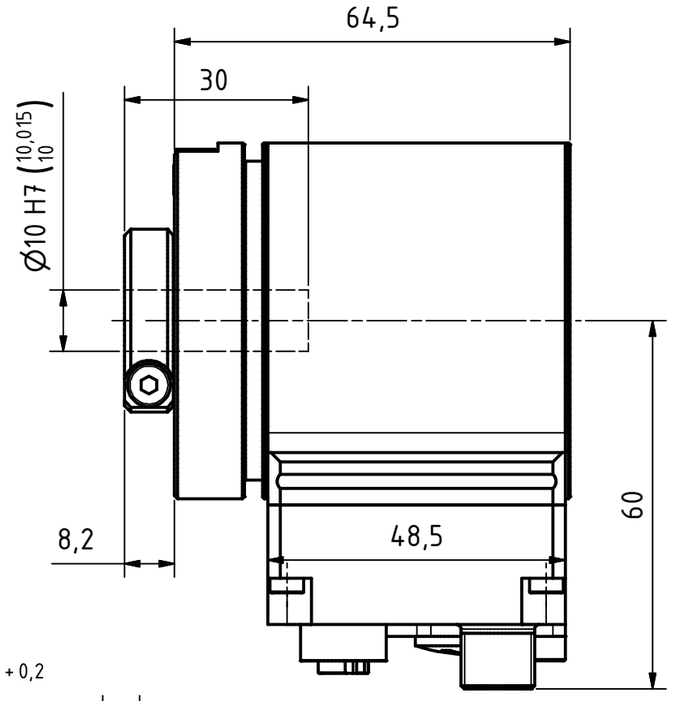
**Alle nicht tolerierten Maße sind Richtwerte.** [All non-tolerated dimensions are guide values.]
Technische Änderungen grundsätzlich vorbehalten. [We reserve the right to make technical changes.]

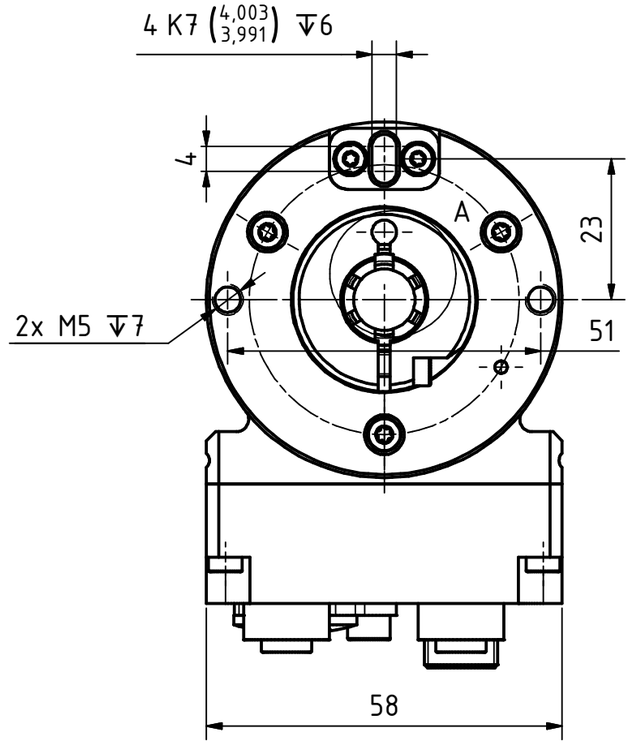
## Anforderung an Kundenwelle
[requirements for the customer shaft]

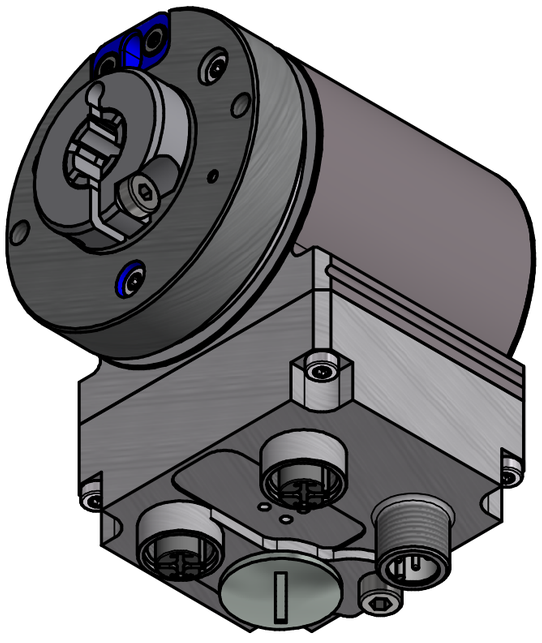
Passfeder [feather key]
DIN 6885-A-3x3x10



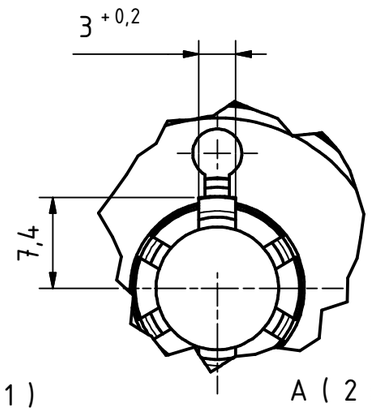



Isometrie ( 1 : 1 )




A ( 2 : 1 )

| Tolerierung [Tolerancing] ISO 8015 | | | | alle Maße in mm [all dimensions in mm] | | |
|---|---|---|---|---|---|---|
| E-Mail: info@tr-electronic.de<br>Support: http://tr-e.info/01 | | | | CAD: STEP | | |
| | | | | | Datum | Name |
| | | | | Erst. | 07.05.2018 | FLAIG |
| | | | | Bearb. | 27.06.2022 | FLAIG |
| 5 | Überarbeitung | 27.06.2022 | FLA | Gepr. | 28.06.2022 | NEMECZ |
| 4 | Steckerausrichtung | 15.08.18 | Flaig | Norm | | |
| 3 | Klemmring | 30.06.18 | Flaig | | | |
| 2 | Kundenwelle | 27.06.18 | Flaig | | | |
| 1 | Überarbeitung | 18.06.18 | Flaig | | | |
| Zust. | Änderungen | Datum | Name | | | |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Maßstab [Scale] 1 : 1 — DIN A3

Artikel-Nr. und Steckerbelegung: siehe Datenblatt
[Article-No. and pin assignment: see data sheet]

Bezeichnung [Designation]:
CDS-582-M, Ø10H7

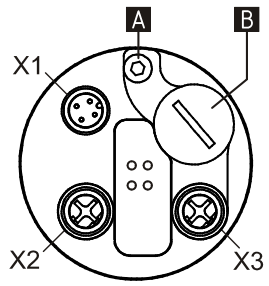
Zeichnung-Nr. [Drawing-No.]:
04-CDS582M-M0001

Dok.Art. IDW | Teil-Dok. 000 | Dok.Vs. 05 | 1/1 Bl.

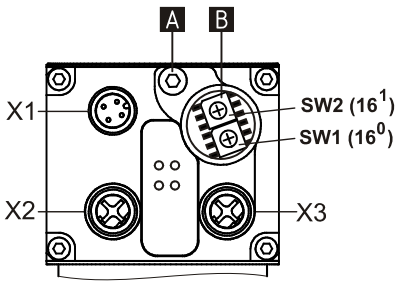
## Steckerbelegung / Pin assignment

### AD_-582 / CD_-582 PROFINET / PROFIsafe

axialer Steckerabgang /
*axial connector outlet*



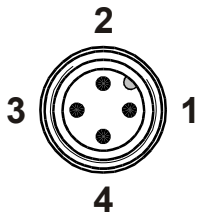

radialer Steckerabgang /
*radial connector outlet*



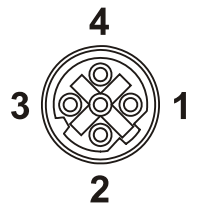

A Potentialausgleich /
*Potential equalisation*

B PROFIsafe-Zieladresse /
*PROFIsafe destination address*
- Valid addresses = 1 – 255

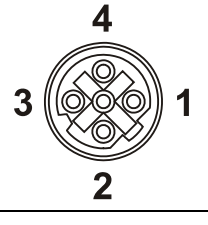
Rücksetzen auf Werkseinstellungen /
*Reset to factory settings*
- Set SW1 / SW2 = 0x00
- 3 Sek. warten
- Set SW2 / SW1 = 0x52
- Wait 3s -> LED green 2 Hz
- Set SW1 / SW2 = 0x00

| X1 | Flanschstecker / *Male socket* (M12x1-4 pol. A-coded) | | | |
|---|---|---|---|---|
| 1 | 10 – 30 V DC | Encoder-Versorgungsspannung / *Encoder-Supply Voltage* | Steckseite *Mating Face* |  |
| 2 | - | N.C. | | |
| 3 | 0 V | Encoder-Versorgungsspannung / *Encoder-Supply Voltage* | | |
| 4 | - | N.C. | | |



| X2 = PORT 1 | | Flanschdose / *Female socket* (M12x1-4 pol. D-coded) | | | |
|---|---|---|---|---|---|
| 1 | TxD+ | Sendedaten + | *Transmission Data +* | Steckseite *Mating Face* |  |
| 2 | RxD+ | Empfangsdaten + | *Receive Data +* | | |
| 3 | TxD– | Sendedaten – | *Transmission Data –* | | |
| 4 | RxD– | Empfangsdaten – | *Receive Data –* | | |



| X3 = PORT 2 | | Flanschdose / *Female socket* (M12x1-4 pol. D-coded) | | | |
|---|---|---|---|---|---|
| 1 | TxD+ | Sendedaten + | *Transmission Data +* | Steckseite *Mating Face* |  |
| 2 | RxD+ | Empfangsdaten + | *Receive Data +* | | |
| 3 | TxD– | Sendedaten – | *Transmission Data –* | | |
| 4 | RxD– | Empfangsdaten – | *Receive Data –* | | |



Die Schirmung ist großflächig auf das Gegensteckergehäuse aufzulegen!
Empfehlung: Potentialausgleich [A] großflächig mit dem Erdungsanschluss verbinden. /

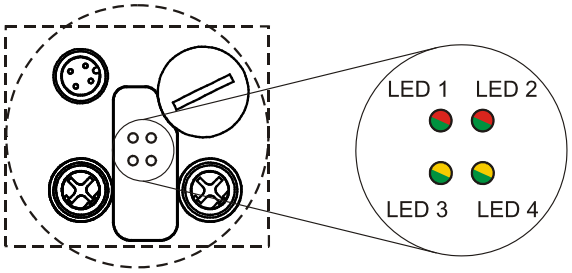
*The shielding is to be connected with large surface on the mating connector housing!*
*Recommendation: Connect the potential equalisation [A] to the grounding connection across a sufficiently sized surface.*

Betriebsanleitung beachten! - *Observe User Manual!*

Änderungen vorbehalten / Subject to change

# Steckerbelegung / Pin assignment

## Status-LEDs




**LED1:** Device Status
(grün, rot / *green, red*)

**LED2:** Net Status
(grün, rot / *green, red*)

**LED3:** PORT1, Data / Link
(grün, gelb / *green, yellow*)

**LED4:** PORT2, Data / Link
(grün, gelb / *green, yellow*)

| | | | | | |
|---|---|---|---|---|---|
| ● | EIN / *ON* | ○ | AUS /*OFF* | ◉ | BLINKEND / *FLASHING* |

## LED1, Device Status

| **grün / *green*** | |
|---|---|
| ○ | Versorgung fehlt, Hardwarefehler / *No supply voltage, hardware error* |
| ● | Betriebsbereit / *Operational* |
| ◉ 3x 2.5 Hz | Re-Integration gefordert / *Re-integration required* |

| **rot / *red*** | |
|---|---|
| ● | System- oder Sicherheitsfehler / *System or safety relevant error* |
| ◉ 3x 2.5 Hz | Warnungen, Parameter- oder F-Parameterfehler / *Warnings, Parameter- or F-Parameter error* |

## LED2, Net Status

| **grün / *green*** | |
|---|---|
| ○ | Versorgung fehlt, Hardwarefehler / *No supply voltage, hardware error* |
| ● | Datenaustausch / *Data exchange* |

| **rot / *red*** | |
|---|---|
| ● | Keine Verbindung zum IO-Controller / *No link to the IO-Controller* |

## LED3 / LED4, PORT1 / PORT2 - Link/Data LEDs

| **grün / *green*** | |
|---|---|
| ○ | keine Ethernet-Verbindung hergestellt / *No ethernet connection established* |
| ● | Ethernet-Verbindung hergestellt / *Ethernet connection established* |

| **gelb / *yellow*** | |
|---|---|
| ◉ / ● | Datenaustausch aktiv / *data exchange active* |

Betriebsanleitung beachten! - *Observe User Manual!*

Änderungen vorbehalten / Subject to change