CDH75M*8192/32768 EPN HW20H7/N +FS

OrderNo.:CDH75M-00019

Click Here for a Quote - customercare@treletronic.com

Stock photo

Advantages

- Functional safety
- Increased tightness
- Position feedback signals
- Redundant scanning system
- SIL3, PLe

Technical data for CDH75M-00019

NO.OF STEPS/REV	8.192,000
NO. OF INCREMENTS	1024
NO. OF REVOLUTIONS	32.768,000
INTERFACE	PROFINET/PROFISAFE
SIGNALS	K1+K2+NEG
SIGNAL LEVEL	13V..27V
SUPPLY VOLTAGE	13V..27V
CONNECTOR TYPE	1X4P.M12-CONNECTOR
	1X5P.M12-STECKER(BUCHSE)
	2X4P.M12-CONN., D-COD(FEMALE)
CONNECTOR-POSITION	RADIAL
MATING PLUG	NO
FLANGE TYPE	SLOT FOR PIN D4
SHAFT TYPE	20H7/KEYWAY HOLLOW SHAFT
STANDARD	EN 61508
	EN 62061 / EN ISO 13849
SAFETY	CDH75M-EPN01 SIL3/PLe
TEMPERATURE RANGE	-20C..+70C
PROTECTION Class	IP65
OPTIONS ENC	IEC 61158, IEC61784-1

Subject to change.

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CDH75M*8192/32768 EPN HW20H7/N +FS

seawater-resistant

Order-#: CDH75M-00019
30.4.2020 / 010102007505020202

Technical data for CDH75M-00019 continuation

	PRESET 1
	PROFIsafe-Profil: No. 3.192b
	SEAWATER-RESISTANT
	SHAFT SEAL
PINOUT NO.	TR-ECE-TI-DGB-0213
DRAWING NO.	04-CDH75M-M0009
DOCUMENTATION NO	DOKUMENTE
EL:	AL:N
ECCN:	ECCN:N
UL-APPROVALS	USA+CANADA

General data for K-CDH75-PN-2

Nominal voltage - Specific value	24 VDC
- Limit values, min/max	13/27 VDC
Nominal current, typically - Specific value	180 mA
- Condition	unloaded
Supply - SELV/PELV	IEC 60364-4-41
- In case of UL / CSA approval	according to NEC Class 2
Device design - Type	Multi-Turn
- Redundant scanning system	yes, double
- Design	optical/magnetic
Total resolution	<= 28 Bit
Number of steps per revolution	<= 8192
Number of revolutions	<= 32768
Accuracy (safety)	8 Bit, Single-Turn
PROFINET IO - Interface - PROFINET IO – Device	IEC 61158, IEC 61784-1
- Physical Layer	Fast Ethernet, ISO/IEC 8802-3
- PROFINET-Specification	V2.2
- Conformance Class	B, C
- Real-Time-Classes	Class 1, 2 (RT), Class 3 (IRT)
- PROFIsafe-Profile	No. 3.192b

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seawater-resistant

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30.4.2020 / 010102007505020202

General data for K-CDH75-PN-2 continuation

- Media Redundancy Protocol, MRP	yes, is supported
Incremental - Interface - Equipment	Standard interface
- Signal form	Square wave
- Signal form, alternative	SIN / COS
- Incremental signals, square	K1± K2±
- Incremental signals, SIN/COS	SIN± COS±, 1 Vss
- Impulses, square wave	1024…5120, in steps of 1024
- Impulses, square wave	4096…20480, in steps of 4096
- Impulses, SIN/COS	4096
- Output driver, TTL	RS-422, 5 VDC
- Output driver, HTL	Push-Pull, 13…27 VDC
- Type of parametrization	Factory setting
Transmission rate - Specific value	100 MBit/s
Cycle time	>= 1000 µs (IRT/RT)
- Not safety related	0.5 ms
- Safety related	5 ms
Parameter/Function, changeable	Integration time
	Preset parameter
	Monitoring window
	Counting direction
	Velocity parameter
Type of parametrization	programmable
Programming - Tool	Fieldbus-Device
Functional safety - Safety principle	Redundance with cross compare
- SIL-Standardization	DIN EN 61508 / DIN EN 62061
- SIL-Level	SIL3 / SIL CL 3
- PL-Standardization	DIN EN ISO 13849
- Performance-Level (PL)	PLe / Cat. 4
- Service life	20 Years
- PFH	1.46E-9 1/h
- PFDav, T = 20 a	1.27E-4
- MTTFd	421 a
- DCavg	95 %
Maximum Speed, mechanically	<= 3000 1/min
Shaft load, axial/radial	Own mass

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seawater-resistant

Order-#: CDH75M-00019
30.4.2020 / 010102007505020202

General data for K-CDH75-PN-2 continuation

Bearing life time	>= 3.9E+10 revolutions
Bearing life time - Parameter - Speed	1000 1/min
- Operating temperature	50 °C
Shaft type - Shaft diameter [mm]	12
- Shaft diameter [mm]	14
- Shaft diameter [mm]	20
Angular acceleration	<= 10E+4 rad/s²
Start-up torque, 20 °C	6 Ncm
Concentricity tolerance	± 0.05 mm
Mass, typically	1 kg

Environmental data

Vibration - Specific value	<= 100 m/s²
- Sine	50…2000 Hz
Shock - Specific value	<= 600 m/s²
- Half sine	5 ms
Immunity to disturbance	DIN EN 61000-6-2
Transient emissions	DIN EN 61000-6-3
Working temperature - Standard	Tu = f(n) = -20…+70 °C
Tu for n > 100 1/min, IP65	Tu = f(n) = 60°C – (0.01 * n)
Storage temperature, dry	-30…+80 °C
Relative humidity	98 %, non condensing
Protection class - Standard	IP65

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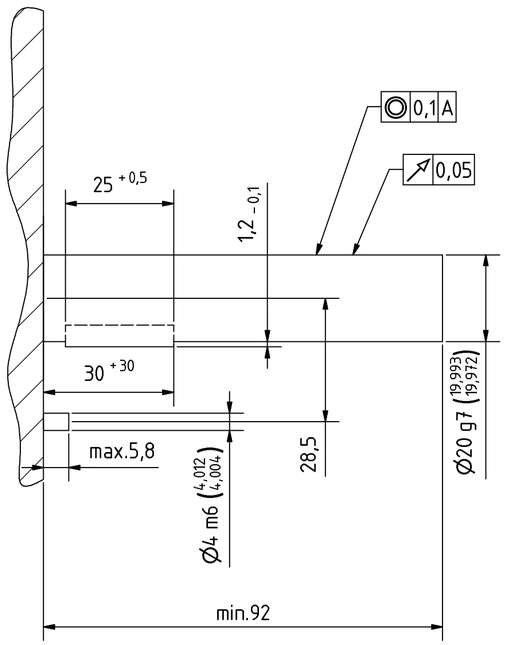
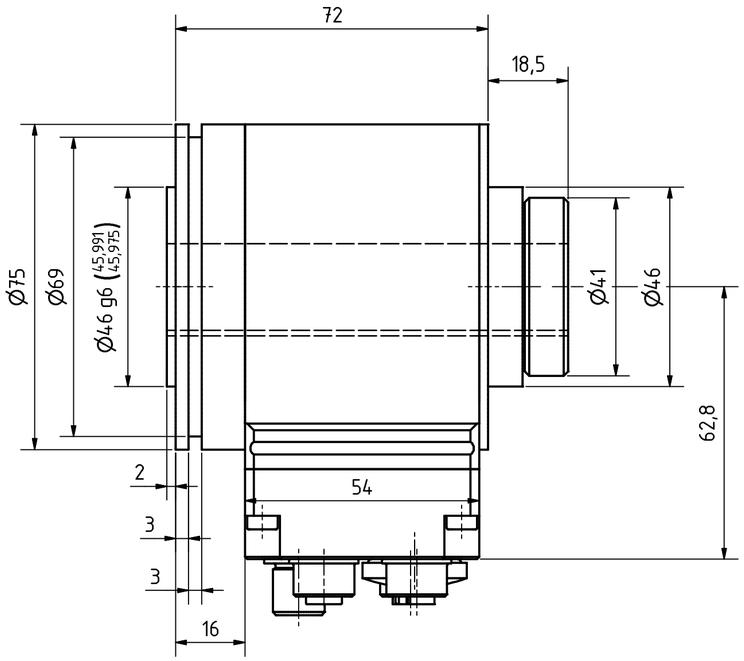
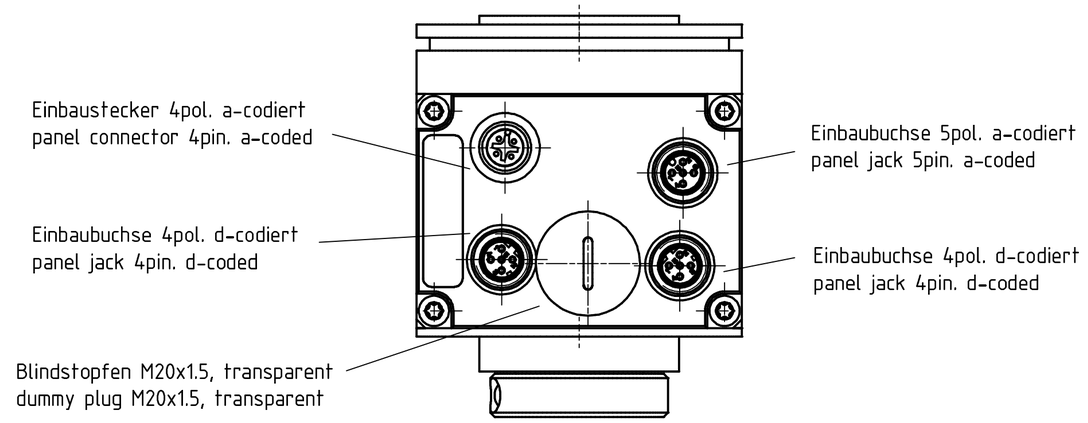
Anforderung an Kundenwelle
Requirements to the customer shaft

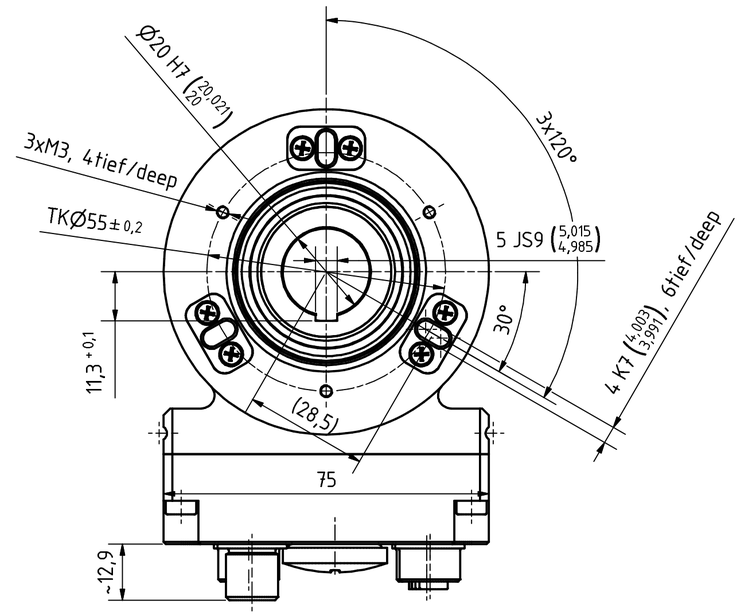
Passfeder DIN 6885-A 5x5x25
(Normabweichung für Ø20)
parallel key DIN 6885-A 5x5x25
(standard tolerance for Ø20)

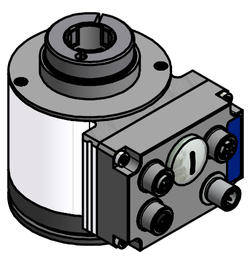


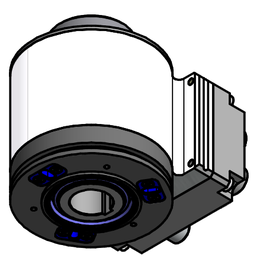
A Geberanbau
Encoder mounting











Gehäuse seewasserbeständig
housing saltwater-proof

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

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				Datum	Name
			Erstellt	27.10.2012	FLAIG
			Bearb.	19.12.2016	FLAIG
			Gepr.	20.12.2016	NEMECZ
			Norm		
1	3D Modell hinterlegt	19.12.16	Flaig		
Zust.	Änderungen	Datum	Name		

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Maßstab 1:1 DIN A2 Projekt-Nr.:

Zeichnungs-Nr. nur für diese Ausführung gültig
Drawing-No. only for this type valid

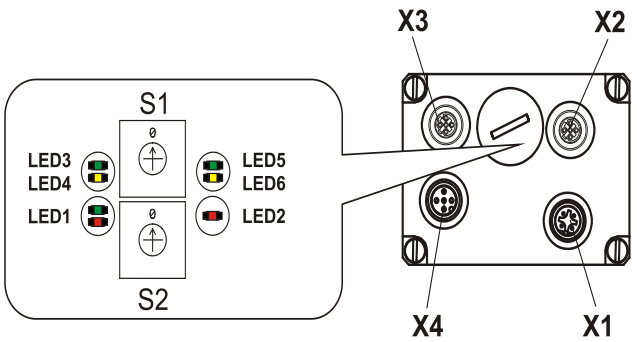
CDH-75-M, Ø20H7 Nut
Ausf. Seewasserbeständig

Zeichnungs-NR../Drawing-No.: 04-CDH75M-M0009

Blatt 1
1 BL

Steckerbelegung / Pin assignment

CD_-75, CDV-115 PROFINET / PROFIsafe

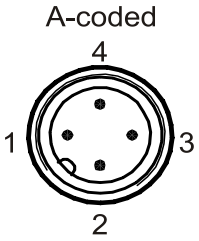


Die Schirmung ist großflächig auf den Gegenstecker aufzulegen!

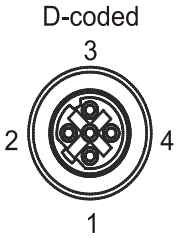
The shielding is to be connected with a large surface on the mating connector!

Steckseite / *Mating Face*

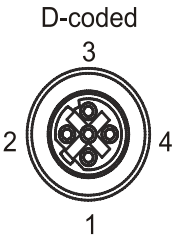
X1	Stift / *Male Connector* (M12 x 1, 4 pol.)	
1	+24 V DC	**Supply Voltage**
2	N.C.	
3	0 V, GND	
4	N.C.	



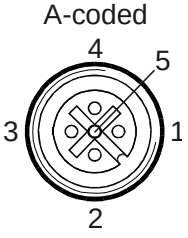
X2	Buchse / *Female Connector* (M12 x 1, 4 pol.)	
1	TxD+, Transmission Data +	**PORT 2**
2	RxD+, Receive Data +	
3	TxD–, Transmission Data –	
4	RxD–, Receive Data –	



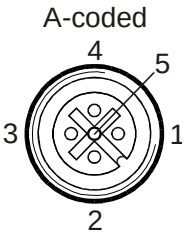
X3	Buchse / *Female Connector* (M12 x 1, 4 pol.)	
1	TxD+, Transmission Data +	**PORT 1**
2	RxD+, Receive Data +	
3	TxD–, Transmission Data –	
4	RxD–, Receive Data –	



X4	Buchse / *Female Connector* (M12 x 1, 5 pol.)	
1	B +, 5 V differential / 13…27 V DC	**INCREMENTAL** **Pegel siehe Typenschild /** ***Level see name plate***
2	B –, 5 V differential / 13…27 V DC	
3	A +, 5 V differential / 13…27 V DC	
4	A –, 5 V differential / 13…27 V DC	
5	0 V, GND	



X4 ′	Buchse / *Female Connector* (M12 x 1, 5 pol.)	
1	SIN +, 1 Vss	**Alternative** **SINUS/COSINE, differential**
2	SIN –, 1 Vss	
3	COS +, 1 Vss	
4	COS –, 1 Vss	
5	0 V, GND	



Betriebsanleitung beachten! - *Observe User Manual!*

Änderungen vorbehalten / Subject to change

PROFIsafe Destination Address „F_Dest_Add“

Über die Adress-Schalter S1 und S2 in der Anschlusshaube wird die PROFIsafe-Zieladresse eingestellt: S1 = 10^0, S2 = 10^1. Gültige Adressen = 1 - 99	*By means of the address switches S1 and S2 in the connection hood the PROFIsafe destination address is adjusted:* *S1 = 10^0, S2 = 10^1.* *Valid addresses = 1 - 99.*

LED Conditions

■	EIN / *ON*	□	AUS /*OFF*	▬	BLINKEND / *FLASHING*

Device Status, LED1 Bicolor

	grün	***green***
□	Versorgung fehlt, Hardwarefehler	*No supply voltage, hardware error*
■	Betriebsbereit	*Operational*
▬	Re-Integration gefordert, 3x 5 Hz	*Re-integration required, 3x 5 Hz*

	rot	***red***
■	System- oder Sicherheitsfehler	*System or safety relevant error*

Bus Status, LED2

	rot	***red***
□	Kein Fehler	*No error*
▬	Parameter- oder F-Parameterfehler; 0,5 Hz	*Parameter- or F-Parameter error; 0.5 Hz*
■	Keine Verbindung zum IO-Controller	*No link to the IO-Controller*

PORT 1; LED3 = Link, LED4 = Data Activity

■	LED3, grün / *green*	Ethernet Verbindung hergestellt	*Ethernet connection established*
■	LED4, gelb / *yellow*	Datenübertragung TxD/RxD	*Data transfer TxD/RxD*

PORT 2; LED5= Link, LED6 = Data Activity

■	LED5, grün / *green*	Ethernet Verbindung hergestellt	*Ethernet connection established*
■	LED6, gelb / *yellow*	Datenübertragung TxD/RxD	*Data transfer TxD/RxD*