

# Incremental-Encoder IEH58:2 2...10000 Imp

[Click Here for Quick Delivery Stock Options](#)



Ref.: K-IEH58:2-INC-1

03.04.2020

0101010582

## Advantages

- \_ Flexible programming
- \_ Imp./Rev. 1-step from 2...x
- \_ Modular mechanical design
- \_ Modular product line
- \_ Programmable output stages
- \_ Wide range power supply

## General Data

Nominal voltage	
- Specific value	24 VDC
- Limit values, min/max	4.75/27 VDC
Nominal current, typically	
- Specific value	50 mA
- Condition	unloaded
Current consump. no load, 5 V	<= 95 mA
Signal form	Square
Incremental signals, square	
- Channels	K1+, K1-, K2+, K2-
- Phase position, electrically	90 °
Zero pulse, square	
- Channel (Channels)	K0+, K0-
- Number of revolutions	1x
Impulses, square wave	>= 2...<= 10000
Output stages	
- Programmable	TTL or HTL
Output driver, TTL	
- Output level	RS-422, 5 VDC
- Load current	<= 35 mA
- Load current	per Channel
- Output frequency	<= 900 kHz

Subject to change.

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### General Data continuation

- Output frequency	with 2 m cable
- Output frequency	with 20 mA load
- Short-circuit proof	yes
Output driver, HTL	
- Short-circuit proof	yes
- Output level	Push-Pull, supply voltage
- Load current	<= 35 mA
- Load current	per Channel
- Output frequency	<= 900 / 700 / 250 kHz
- Output frequency	with 2 m / 5 m / 10 m cable
- Output frequency	with 20 mA load
- Minimum voltage of the supply	> 8 VDC
Parameter/Function, changeable	Number of pulses
	0-Pulse KO: Pulse length
	Phase position: KO/K1/K2
	Preset parameter
	Counting direction
	Output stage (TTL/HTL)
Type of parametrization	programmable
Programming - Tool	TR-Soft: TRWinProg
External inputs	
- F/R	Count direction
- Preset	electronic adjustment
- Logic level	"0" < +2V, "1" = Supply
External outputs	
- Status output	Speed
- Output level	<= 40 VDC, <= 35 mA
- Output stages	Open Collector
- Short-circuit proof	yes
Maximum Speed, mechanically	<= 6000 1/min
Shaft load, axial/radial	Own mass
Bearing life time	>= 3.9E+10 revolutions
Bearing life time - Parameter	
- Speed	6000 1/min
- Operating temperature	60 °C
Shaft type	
- Shaft diameter [mm]	6
- Shaft diameter [mm]	8
- Shaft diameter [mm]	10

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### General Data continuation

- Shaft diameter [mm]	12
- Shaft diameter [mm]	14
- Shaft diameter [mm]	15
- Shaft diameter ["]	1/4
- Shaft diameter ["]	3/8
- Shaft diameter ["]	1/2
Angular acceleration	$\leq 10E+4 \text{ rad/s}^2$
Moment of inertia, typically	2.5E-6 kg m <sup>2</sup>
Start-up torque, 20 °C	3.7 Ncm
Concentricity tolerance	$\pm 0.3 \text{ mm}$ (static, radial)
Mass, typically	0.3...0.5 kg

### Environmental conditions

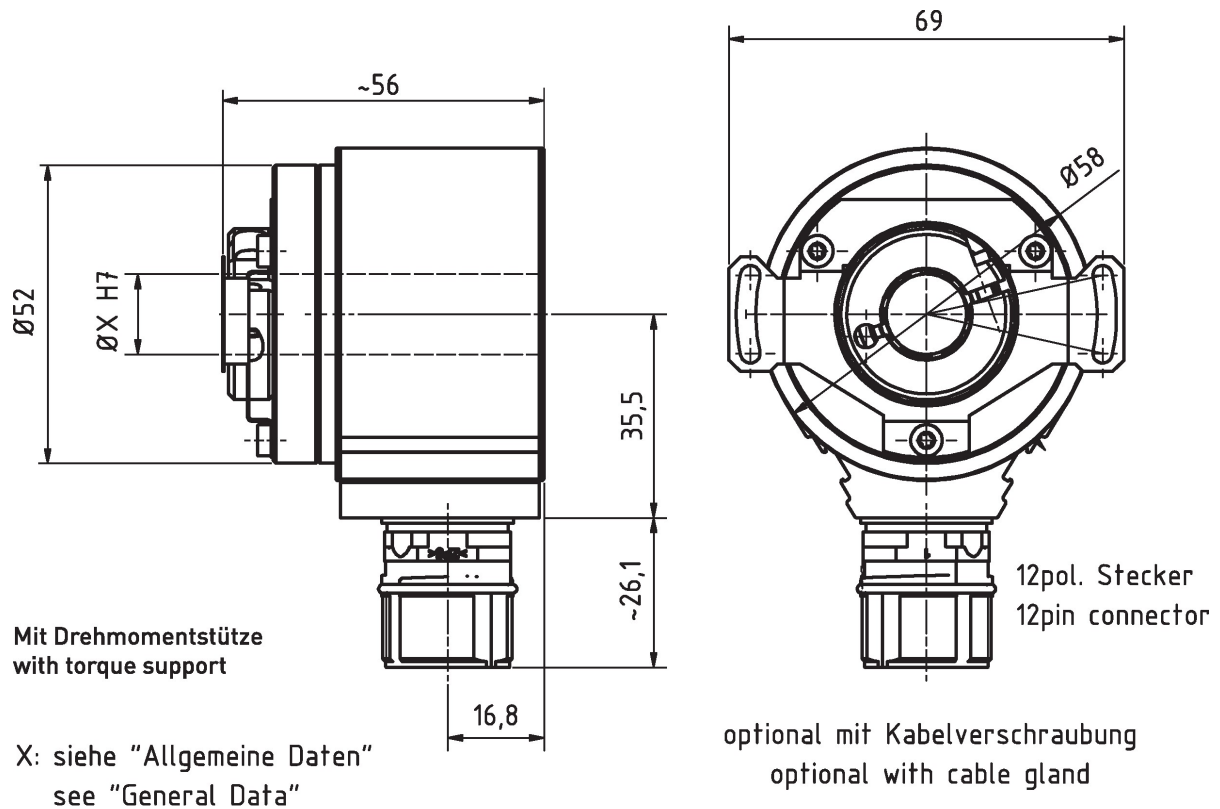
Vibration	
- Specific value	$\leq 100 \text{ m/s}^2$
- Sine	50...2000 Hz
Shock	
- Specific value	$\leq 1000 \text{ m/s}^2$
- Half sine	11 ms
Immunity to disturbance	DIN EN 61000-6-2
Transient emissions	DIN EN 61000-6-3
Working temperature	
- Standard	-40...+75 °C
Storage temperature, dry	-30...+80 °C
Relative humidity	98 %, non condensing
Protection class	
- Standard	IP65 shaft side
- Standard	IP67 housing side

Subject to change.

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## Dimensional drawing



Fehlende Abmaße, siehe Art-Nr. bezogene Zeichnung /  
 Missing dimensions, see drawing related to the order number

Subject to change.

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## Quick Delivery Stock Options (Click Article Number for Data Sheet)

Please note: These are programmable encoders. TR can change Pulse Counts and Voltage Level at no cost - Same Day

Article Number	Pulses/Revolution	Voltage Level	Mounting	Shaft
<u>IEH582-00001</u>	10000 (Programmable)	HTL (TTL Prog)	Support Spring	15mm Hollow

Add a Reducer Collet to the IEH582-00001 to get the bore diameter you need

Part Number	Description
15-12	15mm to 12mm Reducer Collet
15-10	15mm to 10mm Reducer Collet
15-8	15mm to 8mm Reducer Collet
15-6	15mm to 6mm Reducer Collet
15-1/2	15mm to 1/2 Inch Reducer Collet
15-3/8	15mm to 3/8 Inch Reducer Collet
15-1/4	15mm to 1/4 Inch Reducer Collet

Subject to change.

## Incremental Encoder

# IEH58:2\*10000 INC\_HTL DMS 15H7 KRF

OrderNo.:IEH582-00001

[Click Here](#) to go back to Stock Options

[Click Here](#) for a Quote - [customercare@trelectronic.com](mailto:customercare@trelectronic.com)

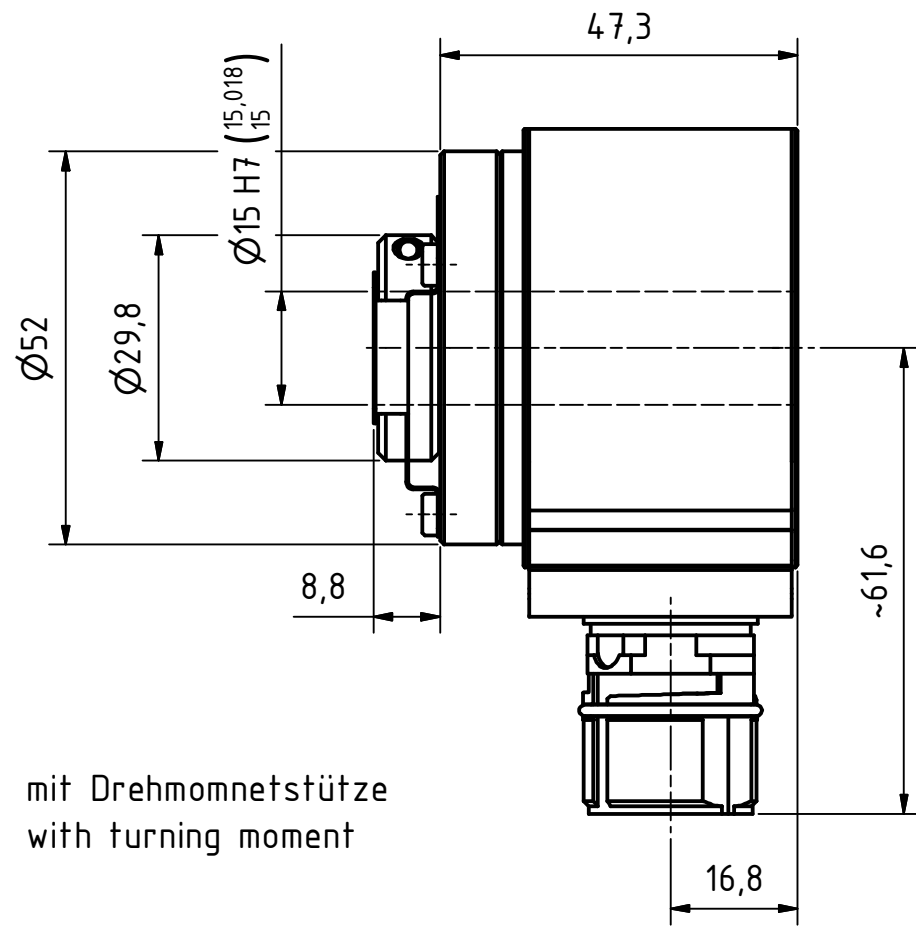
### Technical data

NO. OF PULSES	10000
PROGRAMMABLE	PROG.
INTERFACE	INCREMENTAL
NO. OF CHANNELS	K1-K2 NEG
ZERO-PULSE	K0 NEG
SUPPLY VOLTAGE	4,75V..27V
OUTPUT LEVEL	HTL
PROTECTION Class	IP65
TEMPERATURE RANGE	-40+75°C
SHAFT TYPE	15H7 HOLLOW SHAFT
CONNECTOR TYPE	CONTACT 12P
CONNECTOR-POSITION	CONNECTOR RADIAL ON HOUSING
PINOUT NO.	ST10296
MATING PLUG	NO
OPTIONS ENC	CLAMPING RING ON FLANGE
OPTIONS ENC	MOMENT SUPPORT SPRING
OPTIONS ENC	PROGRAMMABLE
DRAWING NO.	04-IEH58:2-M0001
VERSIONNO	000
FIRMWARE NO	437E00
DOCUMENTATION NO	DOKUMENTE

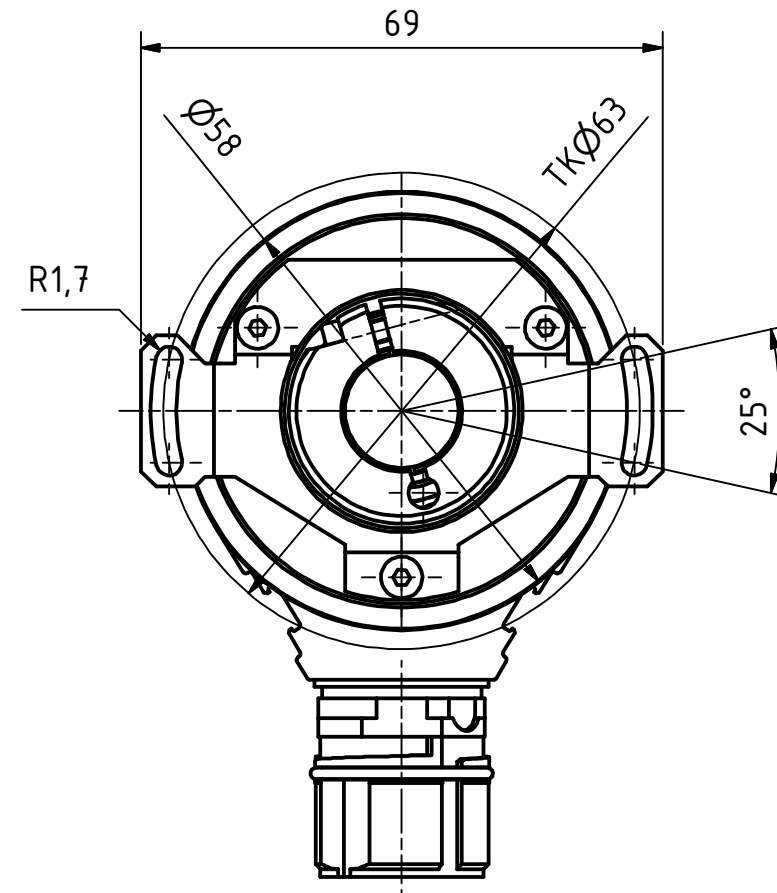
<b>GL</b>	Wellenausführung glatt / shaft type cylindrical
<b>FL</b>	Wellenausführung mit Fläche / shaft type with flat surface
<b>N</b>	Wellenausführung mit Nut / shaft type with slot
<b>Hohlw</b>	Hohlwelle / hollow shaft
<b>Klemme</b>	mit Klemmring / with clamping ring
<b>Grundw</b>	Grundwelle / fundamental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

**Subject to change.**

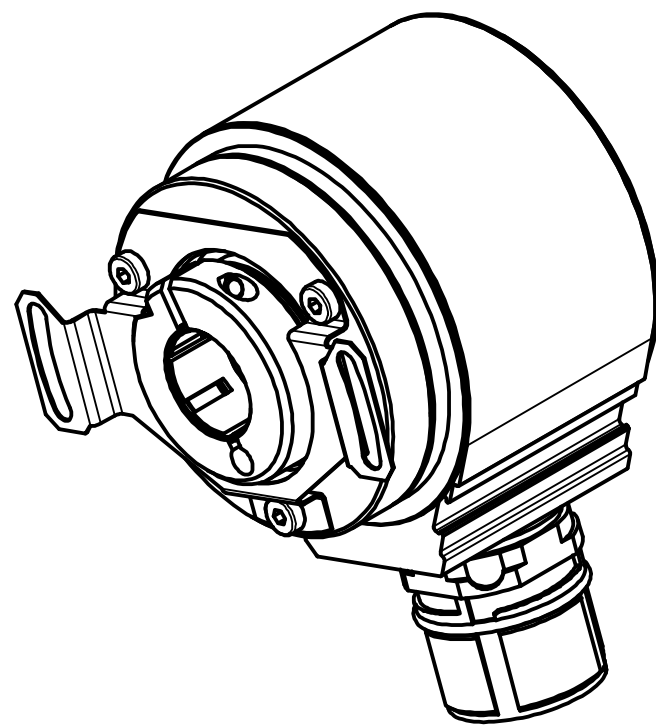
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mit Drehmomentstütze  
with turning moment



12pol. Stecker  
12pin. connector



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

	TR-Electronic GmbH Eglisshalde 6 D-78647 Trossingen phone +49 7425 228.0 www.tr-electronic.de		Maßstab 1:1    DIN A3    Projekt-Nr.:		
			Zeichnungs-Nr. nur für diese Ausführung gültig Drawing-No. only for this type valid		
			Datum	Name	IEH58:2, Ø15H7
		Erstellt	02.09.2014	FLAIG	
		Bearb.	06.08.2019	FLAIG	
		Gepr.	07.08.2019	NEMECZ	
			Norm		
			www.tr-electronic.de DXF+Info: info@tr-electronic.de		Zeichnungs-NR./Drawing-No.: <b>04-IEH58:2-M0001</b>
1	Überarbeitung	6.08.19	Flaig		
Zustf.	Änderungen	Datum	Name		1 Bl.

## Pin assignment

Pin assignment number: 10296

Index:

02.08.2016

Connector name: 12-pol CONTACT

Pin-count: 12

Page: 1/1

Pin	Designation	Description	Level	Driver	NC	Colour
1	CH_A_OUT	Channel A	5...27V	HTL		white
2	/CH_A_OUT	Channel A inverted	5...27V	HTL		brown
3	Direction IN	Change of counting direction	Supply Voltage		0	green
4	CH_B_OUT	Channel B	5...27V	HTL		yellow
5	/CH_B_OUT	Channel B inverted	5...27V	HTL		gray
6	Set CH_I_IN		Supply Voltage		0	pink
7	CH_I_OUT	Channel Reference	5...27V	HTL		blue
8	/CH_I_OUT	Channel Reference inverted	5...27V	HTL		red
9	Ser.Program+_IN/OUT	Ser. programming interface RS485	RS 485	RS 485		black
10	Ser.Program-_IN/OUT	Ser. programming interface RS485	RS 485	RS 485		violet
11	Supply Voltage IN	Supply voltage	4,75...27V			gray/pink
12	Ground IN	Ground	0V			red/blue

### WARNING

'De-energize the system before carrying out wiring work or opening and closing electrical connections !

Short-circuits, voltage peaks, etc. can cause operating failures and uncontrolled operating states, as well as serious personal injuries and damage to property.

Verdrahtungsarbeiten, Öffnen und Schließen von elektrischen Verbindungen nur im spannungslosen Zustand durchführen ! Kurzschlüsse, Spannungsspitzen etc. können zur Fehlfunktion und unkontrollierten Zuständen der Anlage bzw. zu erheblichen Personen- und Sachschäden führen.