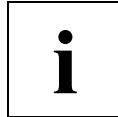
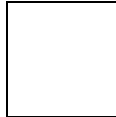
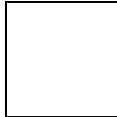


## Incremental-Encoder IEH58-INC

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D-78647 Trossingen  
Tel. +49 - (0) 74 25 / 228 - 0  
Fax +49 - (0) 74 25 / 228 - 33  
<http://www.tr-electronic.de>  
Germany



- Incremental interface
- Type with hollow through shaft
- Modular product line
- Extensive parameter setting possibilities
- Special parameters upon request
- Short lead times
- Further interfaces available
- Modular construction for mechanical customizations

6.1

## Characteristics

Supply voltage.....	11...28 VDC, optional 5 VDC $\pm 5\%$
Current consumption without load .....	< 65 mA, < 80 mA at 5 VDC
Number of pulses/revolution <sup>1)</sup> .....	$\geq 2 \dots \leq 1.024$ , >1.024: 2.048, 4.096, 8.192
Version with push-pull	
- Output level .....	11...28 VDC, supply voltage
- Output current.....	$\leq 30$ mA
- Output frequency.....	150 kHz, $\pm 15^\circ$
- Supply voltage.....	11...28 V DC
Version with line driver	
- Output level .....	5 VDC, RS422
- Output current.....	$\leq 50$ mA
- Output frequency.....	300 kHz, $\pm 15^\circ$
- Supply voltage.....	11...28 V DC, optional 5 VDC
Incremental signals .....	A+, A-, B+, B-
Zero pulse .....	Ref+, Ref-
Programmable parameters	
- Number of pulses	
- Phase position: A / B, Zero pulse(s)	
- Zero pulse: Pulse length, Number of pulses	
- Enable/Disable Preset function, Set Ref+, Ref-	
Preset.....	electronic adjustment of the reference signals Ref+, Ref-
Logic level .....	"0" < + 2 VDC, "1" = Supply voltage
Mechanically permissible speed .....	$\leq 6.000$ min <sup>-1</sup>
Shaft load .....	Own mass
Bearing life time .....	$\geq 3.9 \cdot 10^{10}$ revolutions at
- Speed .....	$\leq 6.000$ min <sup>-1</sup>
- Operating temperature .....	$\leq 60$ °C
Shaft diameter in mm .....	8H7, 10H7, 12H7
Permissible angular acceleration .....	$\leq 10^4$ rad/s <sup>2</sup>
Moment of inertia .....	typically $2.5 \cdot 10^{-6}$ kg m <sup>2</sup>
Start-up torque at 20°C .....	typically 3.7 Ncm
Mass.....	0.3 kg...0.5 kg

<sup>1)</sup> programmable parameter

### Environmental conditions

Vibration, DIN EN 60068-2-6: 1996.....  $\leq 100 \text{ m/s}^2$ , sine 50-2000 Hz  
Shock, DIN EN 60068-2-27: 1995.....  $\leq 1000 \text{ m/s}^2$ , half-sine 11ms  
EMC  
- Discharge of static electricity, DIN EN 61000-4-2: 2001  
- Burst, DIN EN 61000-4-4: 2004  
- Immunity to disturbance, DIN EN 61000-6-2: 2001  
Working temperature.....  $0 \text{ }^\circ\text{C} \dots +60 \text{ }^\circ\text{C}$ , optional  $-20 \text{ }^\circ\text{C} \dots +70 \text{ }^\circ\text{C}$   
Storage temperature.....  $-30 \text{ }^\circ\text{C} \dots +80 \text{ }^\circ\text{C}$ , dry  
Relative humidity, DIN EN 60068-3-4: 2002 ..... 98 %, non condensing  
Protection class, DIN EN 60529: 1991 <sup>2)</sup>..... IP 54

<sup>2)</sup> valid with screwed on mating connector and / or screwed together cable gland

### Dimension drawing

