

## Incremental-Encoder IOH 58

IOH58-INC-1-GB-1  
04/12 Revision 04  
010101-00589999-9999



- + Incremental interface
- + Type with hollow through shaft
- + Modular product line
- + Extensive parameter setting possibilities
- + Special parameters upon request
- + Number of pulses up to 36.000
- + Modular construction for mechanical customizations

### 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> .....	$\leq 36.000$
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	
- Overspeed	
- 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.....	$\geq 3.9 * 10^{10}$ 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 $2.5 * 10^{-6}$ 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

Subject to change

**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  
 - Immunity to disturbance, DIN EN 61000-6-2: 2006  
 - Transient emissions, DIN EN 61000-6-3: 2007  
 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**

(For project planning please request customized dimensional drawing!)

