

## Incremental-Encoder IH 58 U

TR-VCE-TI-GB-0611  
04/12 Revision 01  
010101-00589999-9999



- + Incremental interface
- + Type with hollow through shaft  $\varnothing$  8, 10 or 12 mm
- + Small compact design
- + Universal applications
- + Number of pulses per revolution up to 4.096, others upon request

### Characteristics

Supply Voltage .....	11 - 27 V DC or 5 V DC
Power Dissipation (No Load).....	< 0,8 Watt
Output (11-27 V) .....	Push-Pull
- Maximum Current .....	30 mA
- Incremental Signal .....	A, A neg., B, B neg. Channel A leads channel B when rotating in a clockwise direction
- Marker Pulse (option) .....	Z, Z neg., 1 pulse per revolution
- Cut-Off Frequency .....	160 kHz
- Rise Time of Edge.....	< 500 ns
Output (5 V) .....	Line Driver
- Maximum Current .....	50 mA
- Incremental Signal .....	A, A neg., B; B neg. Channel A leads channel B when rotating in a clockwise direction
- Marker Pulse (option) .....	Z, Z neg., 1 pulse per revolution
- Cut-Off Frequency .....	> 300 kHz
- Rise Time of Edge.....	< 100 ns
Maximum Revolutions per Minute (RPM) .....	$(\text{Cut-Off Frequency [Hz]} / \text{PPR}) \times 60 \text{ min}^{-1}$
Number of Pulses Per Revolution .....	7, 10, 18, 20, 32, 40, 50, 60, 64, 100, 125, 128, 180, 200, 250, 300, 360, 360, 400, 440, 500, 512, 700, 900, 1000, 1024, 1250, 1500, 1885, 2000, 2048, 2500, 2600, 3600, 4000, 4096 further on request
Maximum Rotational Speed .....	6.000 $\text{min}^{-1}$
Maximum Load on Shaft .....	Own Mass
Lifetime on Bearings.....	min. $3,9 \times 10^{10}$ revolutions at: 6.000 $\text{min}^{-1}$ and 60°C
Maximum Angular Acceleration.....	$\leq 10^4 \text{ rad/s}^2$
Momentum of Inertia .....	approx. $2,5 \times 10^{-6} \text{ kg m}^2$
Startup Momentum at 20°C (68°F) .....	approx. 3,7 Ncm
Weight .....	approx. 0,3 kg

Subject to change

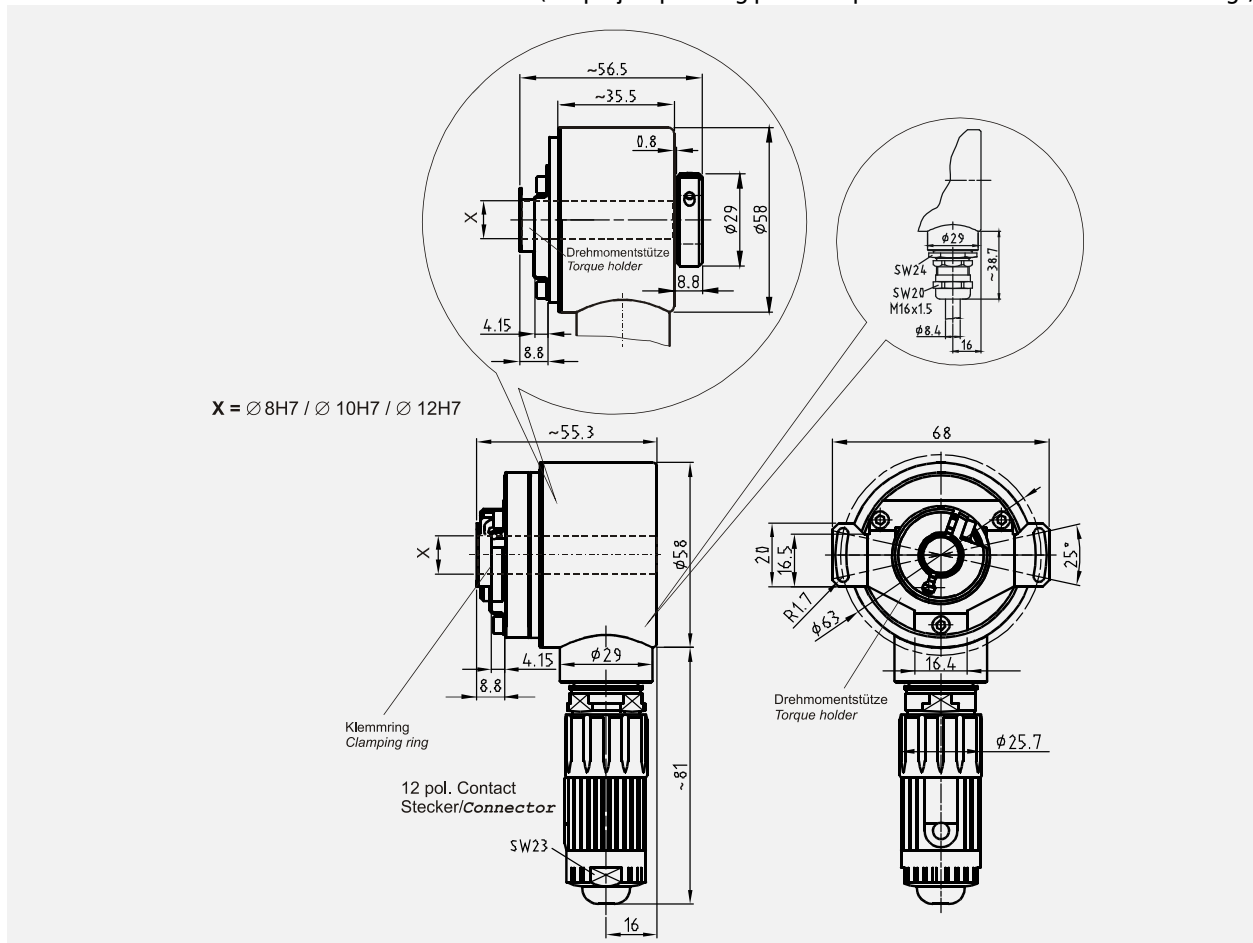
**Environmental conditions**

Vibration, DIN EN 60068-2-6: 1996 .....	≤ 100 m/s <sup>2</sup> , sine 59-2000 Hz
Shock, DIN EN 60068-2-27: 1995.....	≤ 1000 m/s <sup>2</sup> , half-sine 11 ms
EMC	
- Immunity to disturbance, DIN EN 61000-6-2: 2006	
- Transient emissions, DIN EN 61000-6-3: 2007	
Operating Temperature.....	-20 to +85°C
Storage Temperature.....	-30 to +80°C
Relative humidity, DIN EN 60068-3-4: 2002 .....	98 %, non condensing
Protection class, DIN EN 60529: 1991 *).....	IP 64

\*) valid with screwed on mating connector and / or screwed together cable gland

**Dimension drawing**

(For project planning please request customized dimensional drawing!)



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