

## Incremental-Encoder IS 58 U

TR-VCE-TI-GB-0716  
04/12 Revision 01  
010101-00589999-9999



- + Incremental interface
- + Type with stub-shaft-mounting  $\varnothing$  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) .....	(Cut-Off Frequency [Hz] / PPR) x 60 min <sup>-1</sup>
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 .....	12.000 min <sup>-1</sup>
Maximum Load on Shaft .....	Own Mass
Lifetime on Bearings.....	min. 3,9 x 10 <sup>10</sup> revolutions at:
- Operational Speed .....	6.000 min <sup>-1</sup>
- Operating Temperature.....	60°C
Maximum Angular Acceleration.....	$\leq 10^4$ rad/s <sup>2</sup>
Momentum of Inertia .....	approx. 2,5 x 10 <sup>-6</sup> kg m <sup>2</sup>
Startup Momentum at 20°C (68°F) .....	approx. 2 Ncm
Standard Connection.....	12 pin Contact-Bullet-Connector, radial
Further Types of Connections / Connector Types.....	Upon Request
Weight .....	approx. 0,3 kg

Subject to change

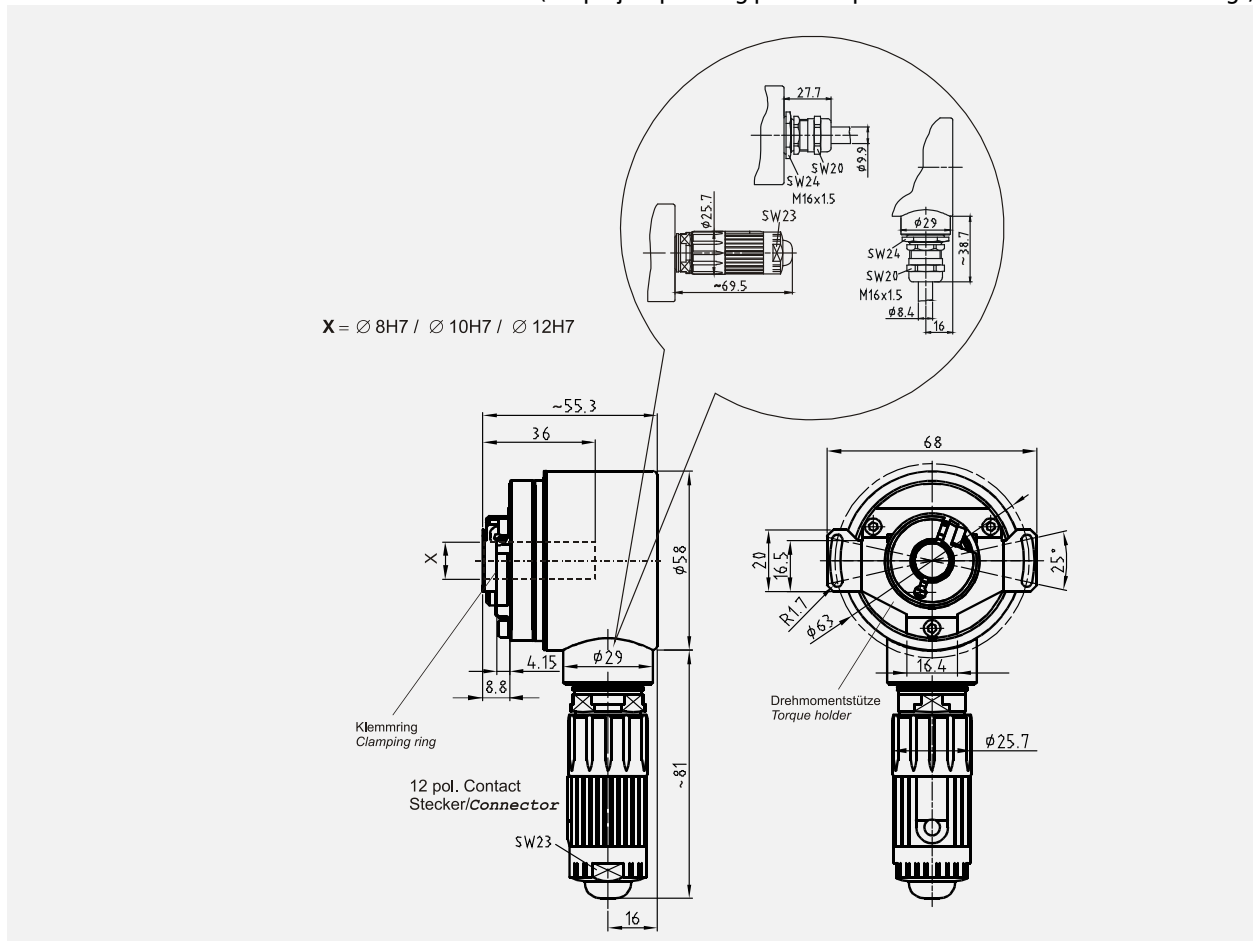
**Environmental conditions**

Vibration, DIN EN 60068-2-6: 1996 .....  $\leq 100 \text{ m/s}^2$ , sine 59-2000 Hz  
 Shock, DIN EN 60068-2-27: 1995.....  $\leq 1000 \text{ m/s}^2$ , 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 67

\*) 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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