

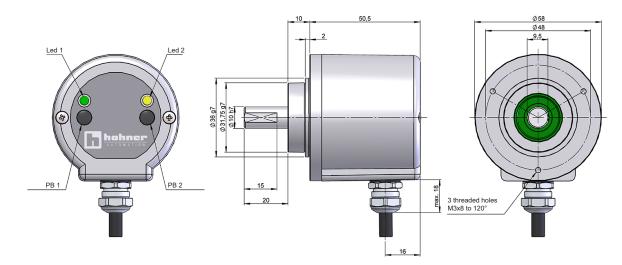
Vibration and shock resistant

Limit Switch

Magnetic Encoder Absolute Encoder Analog output

SERIE E58 CS ANA SOLID SHAFT ABSOLUTE SINGLETURN ENCODER

- Analog output
- Resolution up to 14 bits
- Measuring range configurable up to 360°
- External diameter 58 mm
- Solid shaft 6, 8, 10 or 12 mm
- Protection class IP65 according to DIN EN 60529
- Limit Switch Function
- Connection by cable (other cable length available) or industrial connector M12



9.

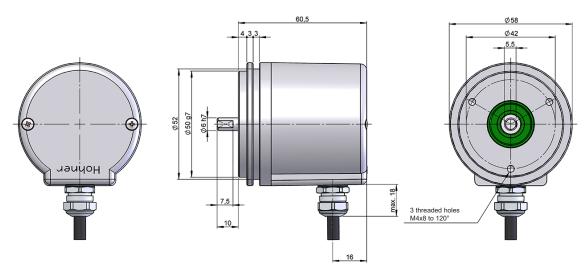
Express Delivery

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P 65

IP65

Drawing shaft type 3, mechanical option type 1, connection type 1, measuring range type CB0 or CBL



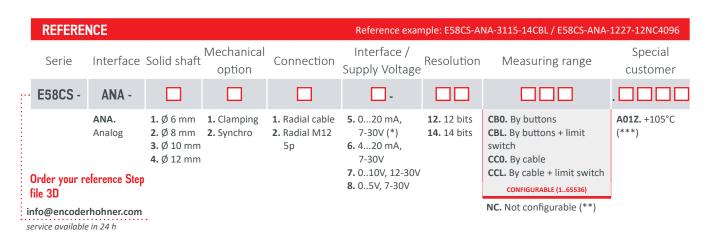
Drawing shaft type 1, mechanical option type 2, connection type 1, measuring range type CC0, CCL or NC





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SOLID SHAFT ABSOLUTE SINGLETURN ENCODER



(*) Only available for measuring range options CB0, CC0 and NC $\,$

(**) Measuring range not configurable, indicate number of degrees from 22,5° up to 360°. Preset and change of direction can be configured by cable.

(***) Only available for measuring range options CC0, CCL and NC

Factory configuration: Measuring range: 360°

MECHANICAL SPECIFICATIONS Cover: Aluminium Materials Housing: Aluminium Shaft: Stainless Steel Bearings Ballraces **Bearings** lifetime 1x10¹⁰ rev. Shaft diameter 6, 8, 10 and 12 mm Maximum number of revolutions permitted mechanically 6000 rpm Protection against dust and splashes according to DIN EN 60529 IP 65 Rotor inertia moment 10 gcm² Starting torque at 20°C (68°F) ≤ 0,02 Nm Maximum load permitted on axial shaft 30 N Maximum load permitted on radial shaft 40 N Weight aprox. 0,5 Kg -40°C to +85°C - Standard Operating temperature range -40°C to +105°C - Special customer A01Z Vibration according to DIN EN 60068-2-6 100 m/s² (10Hz...2000Hz) Shock according to DIN EN 60068-2-27 1000 m/s² (6ms) 2 meters cable or industrial connector M12 (other cable lengths **Radial connection** available on order) Female connector not included

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ELECTRICAL SPECIFICATIONS

| Interface | Analog | |
|-------------------------------|-----------------------------|--|
| Electronic output | 020mA , 420mA, 05V, 010V | |
| Power supply (VCC) | 7-30V, 12-30V | |
| Consumption | ≤ 100 mA | |
| Resolution | 12 or 14 bits | |
| Range | from 22,5° up to 360° | |
| Configurable parameters | Range, Direction and Preset | |
| Rollover mode | Yes | |
| Frequency | 100 kHz | |
| Short circuit protection | Yes | |
| Protection polarity inversion | Yes | |

CONNECTION

| | Cable 5x0,14 95.0008051 | Connector M12 5p CCW |
|---------------------------------|--------------------------------------|----------------------------|
| GND | Yellow | 1 |
| VCC | White | 2 |
| SET1 / DIR | Brown | 3 |
| SET2 / PRESET | Green | 4 |
| I $_{\rm out}$ / V $_{\rm out}$ | Grey | 5 |

MEASURING RANGE CONFIGURATION

CONFIGURABLE BY BUTTONS (OPTIONS CB0 AND CBL)

- 1. Press PB1 and PB2 together for 5 sec. to enter programming mode.
- 2. Turn the shaft to the start measuring position.

3. Press PB1 or PB2 for 2 seconds, then the led of the pressed PB stays fixed.

4. Turn the shaft to the end measuring position.

5. Press the other PB not configured for 2 seconds, then the led of the pressed PB stays fixed.

CONFIGURABLE BY CABLE (OPTIONS CCO AND CCL)

- 1. Turn the shaft to the start measuring position.
- 2. Connect SET1 or SET2 with +V for at least one second.
- 3. Turn the shaft to the end measuring position.
- 4. Connect the other SET not configured with +V for at least one second.

If the process is not set up correctly, the encoder gives an electronic output of 12 mA in Interface / Supply Voltage options 5 (0..20 mA, 7-30V) and 6 (4..20 mA, 7-30V), or half of maximum voltage in options 7 (0..10 V, 12-30V) and 8 (0..5 V, 7-30V).

In the configuration option with buttons it is also possible to configure the measurement range through the cables.

NOT CONFIGURABLE (OPTION NC)

Direction

1. Set direction before Zero Setting the encoder.

2. If DIR pin is connected to GND or not connected, the encoder has an increasing output signal when the shaft is turned CW.

3. If DIR pin is connected to \geq 5V up to max supply voltage, the encoder has an increasing output signal when the shaft is turned CCW. DIR pin needs to be always connected to \geq 5V.

Preset

1. Turn the shaft to the position you want to set to zero.

2. Connect PRESET pin to \geq 5V up to max supply voltage for at least T=100 ms.

3. Disconnect the PRESET pin, now the encoder is set to zero at the actual shaft position.

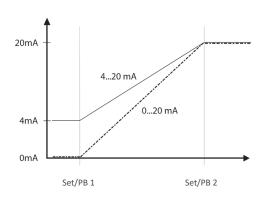
4. Make sure that the shaft is not move during the set to zero procedure.

SERIE E58 CS ANA

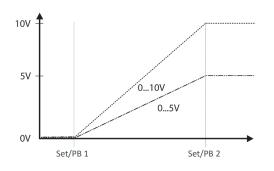
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OUTPUT SIGNALS

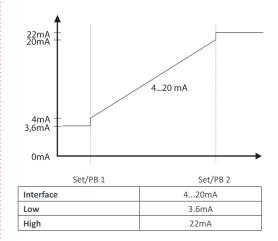
Configurable version mA without Limit Switch function



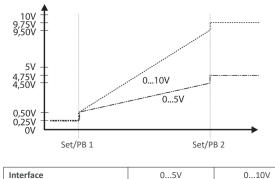
Configurable version V without Limit Switch function



Configurable version mA with Limit Switch function

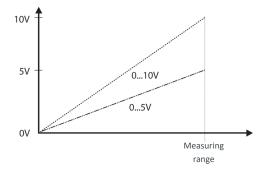


Configurable version V with Limit Switch function

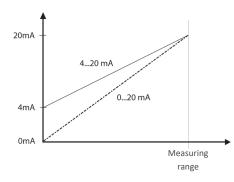


| Interface | 05V | 010V |
|-----------|-------|-------|
| Low | 0.25V | 0.25V |
| High | 4.75V | 9.75V |

Not configurable version V (Voltage)



Not configurable version mA (Current)

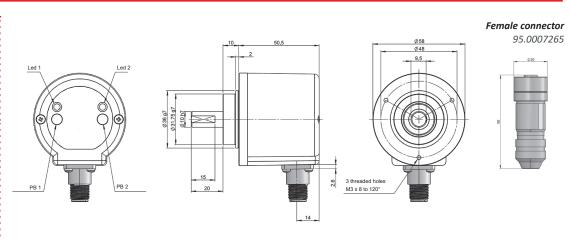


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CONNECTION DIMENSIONS

Connection 2

Radial M12 5p male panel counter clockwise



Female connector not included