

ROTAPULS

Incremental Encoders

series

C81



C81

ENVIRONMENTAL SPECIFICATIONS

| | |
|------------------------------|--|
| Shock: | 100 g, 6 ms (acc. to MIL STD 202F) |
| Vibrations: | 10 g, 5-2000 Hz (acc. to MIL STD 202F) |
| Operating temperature range: | -20°C +70°C (-4°F +158°F) |
| Storage temperature range: | -20°C +80°C (-4°F +176°F) (98% R.H.without condensation) |
| Protection: | IP54 |
| Options: | <ul style="list-style-type: none"> • Operating temperature range: -40°C +100°C (-40°F +212°F) • IP65 Protection (2000 rpm max, torque 2 Ncm) |

MECHANICAL SPECIFICATIONS

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|-----------------------------------|--|
| Dimensions: | see drawing |
| Shaft hollow: | Ø 20 ÷ 43,97 mm |
| Shaft loading (axial and radial): | 60 N max. |
| Shaft rotational speed: | 2000 rpm@70°C (158°F)/IP54 3000 rpm@100°C (212°F)/IP54 1500 rpm@70°C (158°F)/IP65 2000 rpm@100°C (212°F)/IP65 |
| Starting torque at 20°C: | 4 ÷ 12 Ncm (typical) |
| Moment of inertia: | 100 ÷ 450 gcm ² |
| Misalignment: | ± 0,3 mm radial ± 0,2 mm axial |
| Bearings life: | 10 ⁹ rev. min. |
| Weight: | 0,3 ÷ 0,6 kg (10,6-21,2 oz) |

ELECTRICAL SPECIFICATIONS

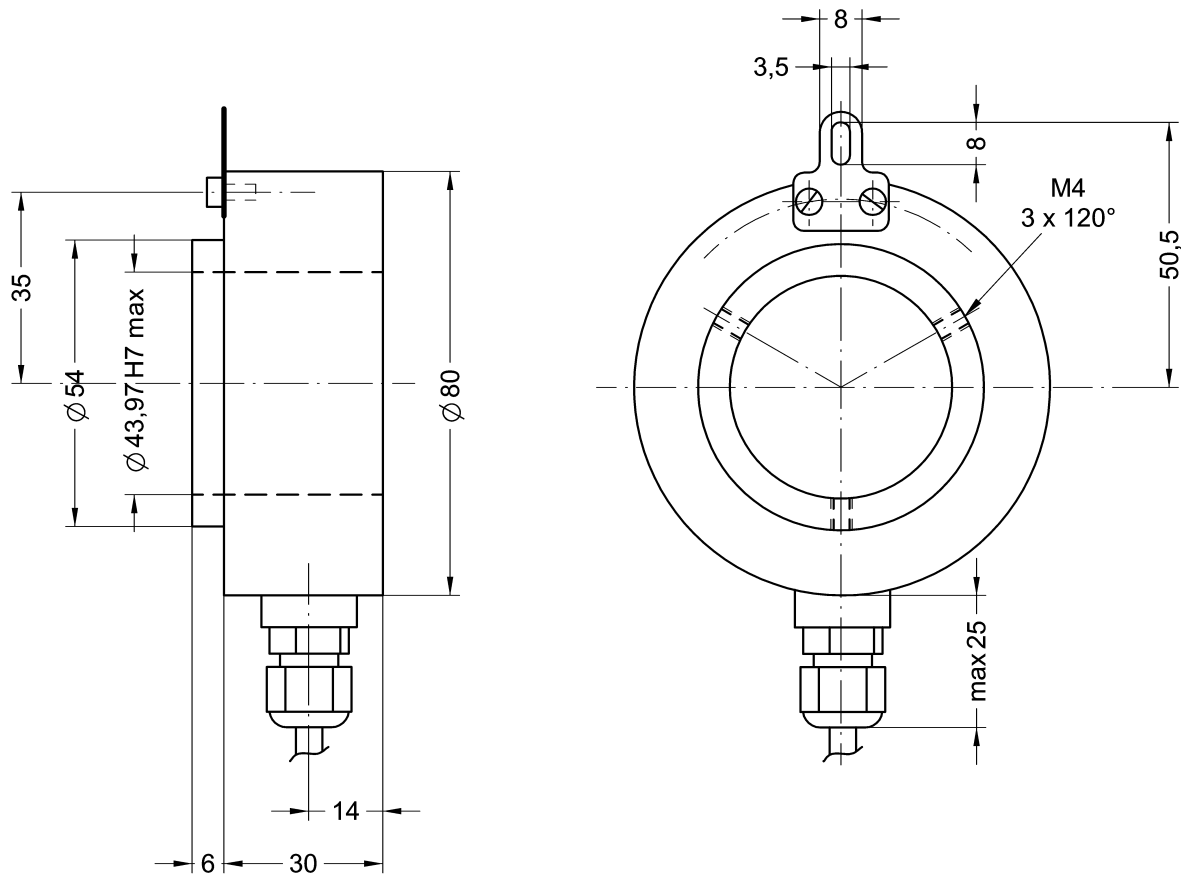
| | |
|---|--|
| STD pulse rate (other PPR upon request): | 12-300-500-1024-2000-2048-2500 |
| Power supply: | +5V±5%, +10V +30V,+5V +30V |
| Output circuits: | Push-Pull, Line Driver, PP/LD |
| Output current (per channel): | 40 mA max. |
| Output frequency: | 100 kHz max. |
| Input current: | 40 mA max. |
| Protection: | against inversion of polarity (except +5V version) outputs are protected against short-circuit (except Line Driver version) |
| Optoelectronic life: | 100.000 hrs min. |
| Option: | • Output freq. 200 kHz max. |

MATERIALS

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|---------------|-------------------------------|
| Flange: | steel |
| Housing: | non corroding |
| Bearings: | ABEC 5 |
| Shaft: | stainless steel, non-magnetic |
| Light source: | GaAl diodes |

ACCESSORIES

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| EDE9S: | 9 pin DSub mating connector |
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C81

ORDERING CODE

ADDITIONAL CODE (indicate only if necessary)

| | | | | | | | | | | | | | | | | |
|---|--|---|-----------------------------|---|-----------------------------|---|-----------------------|---|-----------------------------|---------------------------|---|--------------------------------|---|------------------------------------|---|--|
| <p>XXXX - X - XXXX</p> <p>SERIES</p> <p>C81</p> <p>OUTPUT CIRCUITS</p> <p>Push-Pull Y Line Driver AD26LS31 or eqv. L PP/LD universal circuit H</p> <p>PULSE RATE (PPR)</p> <p>See electrical specifications</p> <p>OUTPUT SIGNALS CONFIGURATION</p> <p>Bidirectional B Bidirectional with index pulse Z</p> | <p>X</p> <p>X X X X</p> <p>SHAFT DIAMETER</p> <p>20 20 mm 44 43,97 mm</p> <p>ELECTRICAL CONNECTIONS</p> <table border="1"> <tr> <td>N</td> <td>Normal output</td> <td>F</td> <td>5 wires cable, 1m. (3.3 ft)</td> </tr> <tr> <td>C</td> <td>Complementary outputs</td> <td>U</td> <td>8 wires cable, 1m. (3.3 ft)</td> </tr> </table> <p>see on page 59-60</p> <p>SUPPLY VOLTAGE VS OUTPUT CIRCUIT</p> <table border="1"> <tr> <td>+5V±5% (L output circuit)</td> <td>1</td> </tr> <tr> <td>+10V± +30V (Y output circuits)</td> <td>2</td> </tr> <tr> <td>+5V±+30V (PP/LD universal circuit)</td> <td>4</td> </tr> </table> | N | Normal output | F | 5 wires cable, 1m. (3.3 ft) | C | Complementary outputs | U | 8 wires cable, 1m. (3.3 ft) | +5V±5% (L output circuit) | 1 | +10V± +30V (Y output circuits) | 2 | +5V±+30V (PP/LD universal circuit) | 4 | <p>X X X X X</p> <p>C Inline connector DSub 9 pin</p> <p>Cable length on request Lx Ex.: L4 = 4 m. (13.2 ft) L7 = 7 m. (23.0 ft)</p> <p>K Operating temperature range: -40°C + 100°C (-40°F +212°F)</p> <p>W Output frequency up to 200 kHz</p> <p>P IP65 Protection</p> |
| N | Normal output | F | 5 wires cable, 1m. (3.3 ft) | | | | | | | | | | | | | |
| C | Complementary outputs | U | 8 wires cable, 1m. (3.3 ft) | | | | | | | | | | | | | |
| +5V±5% (L output circuit) | 1 | | | | | | | | | | | | | | | |
| +10V± +30V (Y output circuits) | 2 | | | | | | | | | | | | | | | |
| +5V±+30V (PP/LD universal circuit) | 4 | | | | | | | | | | | | | | | |