Magnetic absolute singleturn encoder kit  
**BMSK SSI - MAGRES**

**features**
- SSI interface
- Kit structure
- 10 Bit singleturn resolution
- Zero-point programmable

**general data**
- Voltage supply: 5 VDC ±10% (05C)
- Max. supply current (no load): typ. 100 mA
- Output circuit: SSI, RS 422
- Connection: connector 12 pin
- Steps/rev: 1024
- Max. resolution: 10 Bit (1 steps relates to = 216"
- Pulse tolerance: ±1°
- Switching frequency f(max): 1 MHz
- Input signal: clock input
  - Zero setting (zero): < 0.4 V, > 2 ms
  - Off state: 3.3 V or open
- Sense of rotation: looking at the MAGRES flange counts up as the shaft rotates clockwise (CW)

**mechanical data**
- Max. revolutions: 6,000 rev/min
- Rotor inertia: typ. 1,3 x 10² kgm²
- Mounting tolerance:
  - Axial: ±0.3 mm
  - Radial: ±0.1 mm
- Max. protection class: IP 40
- Material:
  - Housing: aluminum/synthetic
  - Flange: aluminum
- Weight: approx. 50 g

**ambient conditions**
- Temperature range: -20...+85 °C
- Relative humidity: max. 85% non condensing
- Vibration: IEC 68 section 2-6
  - ≤100 m/s² / 10-200 Hz
- Shock: IEC 68 section 2-27
  - ≤500 m/s² / 11 m/s

**accessories**
- Connector push-pull part nr. 138525 with wires
- L = 300 mm

**order designation**
- BMSK 42 1 05C10/0006B

**dimensions and connection dimensions**

**assignment cable**

<table>
<thead>
<tr>
<th>pin number</th>
<th>signal description</th>
<th>description</th>
</tr>
</thead>
<tbody>
<tr>
<td>0</td>
<td>0 V voltage supply</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>+Vs voltage supply</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Data+</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Data</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Clock+</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Clock</td>
<td></td>
</tr>
<tr>
<td>6</td>
<td>Zero zero setting input</td>
<td>not connected</td>
</tr>
<tr>
<td>7-11</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**SSI data output 05C**

**output version**

**clock input 05C**

**encoder circuit schematic**

**typical user interface**

**for connection reference -S**