**DESCRIPTION**

Designed as a direct replacement for AVG/Autotech SAC-RL100-Gxxx transducers, these products are designed to ease installation change over and are compatible with both AVG/Autotech and AMCI control systems. The HT-400 multi-turn transducers are absolute sensors with a built-in gear reducer that have the mechanical dimensions and bolt pattern of the AVG/Autotech RL100’s. The HT-400 multi-turn transducers can be ordered with a one inch conduit fitting or an MS3112E12-10P military connector, and these terminations are interchangeable and field replaceable. In addition to termination flexibility, the HT-400 multi-turn transducers can be ordered with a variety of resolvers to match your control system. See page 2 of this spec sheet for a complete part number breakdown.

For AMCI users, the HT-400 multi-turn transducers offers the advantage of a multi-turn transducer with a conduit fitting. With proper installation, this completely eliminates the possibility of liquid contaminates entering the transducer cable. AMCI's standard bolt pattern is also on the front of the transducer so mounting brackets designed for our HT-20-(x) transducers may be used with the HT-400 multi-turn transducers without modification. Many AMCI controllers can be configured to work with AVG/Autotech transducers. However, when ordering one of the HT-400 multi-turn transducers for use with these controllers, the transducer should be ordered with an AMCI compatible resolver to ensure proper operation.

**DIMENSIONAL DRAWING**

Shaft shown at approximate position of resolver's electrical zero.

( ) = Dimensions in millimeters

Outline Changes with Connector Installed. Conduit and Connector Fittings can be ordered separately and are field replaceable.
**SPECIFICATIONS**

**Mechanical**
- Shaft Loading: Radial: 100 lbs. max.
- Axial: 50 lbs. max.
- Bearing life rated at 2X10^6 revolutions
- Minimum at specified shaft load.
- Starting Torque: 8 oz.in. @ 25°C
- Moment of Inertia: 8.75X10^-4 oz-in-sec² max.
- Weight: 5.25 lbs

**Environmental**
- Shock: 50 g's for 11 milliseconds
- Vibration: 15 g's to 2000 Hz
- Operating Temp: -40 to 125°C (-40 to 257°F)
- Enclosure: Anodized Aluminum Body
- 1070 Carbon Steel Shaft
- IP64 when conduit properly sealed.

**PART NUMBERING SYSTEM**

**Base Part Number**

**Number of Turns**
- 24, 36, 128

**Other gear ratios are available, consult factory for assistance.**

**Termination**
- "C" = 1 inch Conduit
- "S" = MS25 Side Connector

**Resolver Type**
- "J" = AMCI Standard
- "L" = AVG/Autotech and Gemco Standard
- "C" = ElectroCam and Namco/C&A Standard

**Other resolvers are available, consult factory for assistance.**

A cable for an HT-400 multi-turn transducer with a preinstalled mating connector can be ordered from AMCI. All connections are factory tested. The AMCI part number is:

**CTL-xxx/MS25**, where 'xxx' is the length in feet.

Termination Adapters, which include the adapter, gasket, and four mounting screws, can be ordered separately under the following part numbers:

**MS-TAC**: 1" Conduit Termination Adapter

**MS-TA25**: MS-25 Termination Adapter

**CHANGING TERMINATION ADAPTERS**

When using the MS-TAC, start by removing the back plate of the HT-400 transducer. Mount the MS-TAC on the transducer and feed you cable through the conduit fitting. Wire your cable to the transducer's terminal block and replace the back plate.

Wires on the MS-TA25 are labeled by pin number. Use the table below to wire the MS-TA25 to the HT-400's terminal block.

<table>
<thead>
<tr>
<th>Terminal</th>
<th>Pin</th>
</tr>
</thead>
<tbody>
<tr>
<td>R1</td>
<td>F</td>
</tr>
<tr>
<td>R2</td>
<td>E</td>
</tr>
<tr>
<td>FS1</td>
<td>D</td>
</tr>
<tr>
<td>FS2</td>
<td>B</td>
</tr>
<tr>
<td>FS3</td>
<td>C</td>
</tr>
<tr>
<td>FS4</td>
<td>A</td>
</tr>
</tbody>
</table>

When using the MS-TA25, start by removing the back plate of the HT-400 transducer. Mount the MS-TA25 on the transducer, feeding the wires of the MS25 connector into the transducer. Connect these wires to the transducer's terminal block and replace the back plate.

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