**H25S-FS-HFL Specification Sheet**

**INSTALLATION NOTES**

The H25S-FS-HFL is AMCI's size 25, flange mount, single turn transducer with shaft seal and high temperature integral cable. Its NEMA 4 rating means that it will survive most industrial applications including washdowns and it has a temperature rating of –20°C to 125°C. The H25S-FS-HFL is also bolt-in replacement for most flange mount size 25 optical encoders.

Because of the transducers small shaft size, use care when mounting gears or pulleys on the shaft. When installing the transducer, observe the radial and axial load specifications to insure long bearing life. Use a flexible coupler when attaching the H25S-FS-HFL directly to a machine shaft. Even a small mis-alignment or movement in the machine shaft can cause very large radial and axial loads on the transducer bearing if the two shafts are directly coupled.

When mounting the transducer, the shaft hole should be at least 1.25" in diameter so that the pilot can pass through. If your pilot hole is smaller than 1.25", standoffs that are at least 0.3" long must be used. DO NOT compress the front of the pilot when mounting the transducer. This may compress the shaft bearing and seal which will shorten their life.

Because the H25S-FS-HFL is an absolute sensor, it cannot "lose counts" as an incremental transducer can. If the transducer appears to be losing counts while operating, the usual cause is a shaft slipping in a loose coupler. Check all mechanical couplings and use shaft keys wherever possible.

**DIMENSIONAL DRAWING**

( ) = Dimensions in millimeters

Integral 89730 Belden cable or equ. 15 ft. (4.57 meters) total length. 2" (51) tinned lead termination.

3.0" (76) Min. Bend Radius. (Not Shown to Scale)

Viton® Shaft Seal

0.300" (7.62)

0.3747" (9.517) 0.3744" (9.510)

0.900" (22.86) 0.850" (21.59)

0.218" (5.54) dia. Four places

0.250" (6.35)

2.65" (67.3) max.

CL

CL

3.0" (76) Min. Bend Radius. (Not Shown to Scale)

H25S-FS-HFL

2.50" (63.5)

2.65" (67.3) max.

CL

CL

2.65" (67.3) typ.

1.250" (31.75) 1.249" (31.72)

1.032" (26.21) typ.

1.032" (26.21) typ.

1.032" (26.21) typ.

1.65" (41.9) max.
**SPECIFICATIONS**

**MECHANICAL**
- Shaft Loading: Radial: 40 lbs. max.
- Axial: 20 lbs. max.
- Starting Torque: 8.0 oz.in. @ 25°C
- Moment of Inertia: 6.00X10^{-4} oz-in-sec² max.
- Weight: 1.5 lbs.

**ENVIRONMENTAL**
- Shock: 50 g's for 11 mSec
- Vibration: 15 g's to 2000 Hz
- Operating Temp: -20 to 125°C
- Enclosure: NEMA 4
  - Anodized Aluminum Body
  - 303 Stainless Steel Shaft

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**Extending the Integral Cable**

The figure below shows the resolver designations of the transducer and the suggested way of extending the integral cable. If you follow the figure, the wiring to your controller will follow AMCI's published wiring diagrams.

Notes:
1) All cable junctions must be made in a grounded junction box to prevent noise from being injected into the cable.
2) Treat the cable shields as signal carrying conductors in all junction boxes. Keep the shields isolated from earth ground and keep them separate from each other. These practices will prevent ground loops and noise cross-talk between cable pairs.
3) Keep the splices as short as possible in the junction boxes.

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**Diagram:**

The diagram shows the resolver designations of the transducer and the suggested way of extending the integral cable. The figure indicates the connection points for the Belden 89730 Cable from H2S-FS-HFL to the AMCI Controller. Each wire is labeled with a color designation, and the use of shields is indicated at each connection point. The notation "Color1/Color2" denotes that a wire of "Color1" has a "Color2" stripe.