

MESSAGE FROM



SERVICE INFORMATION

DATE: August 9, 2005

REF: NO.: NS-11-05

TO: Service Manual Holders
National, International, Canada
Field Sales and Waynesboro Personnel

SUBJECT: Servicing Temperature Probes

Frick has used various temperature probes (or sensors) over time. Some have become obsolete and were superseded. This has caused difficulties when attempting to service or replace them. This letter should make the matter more easily understood. Note that there are part numbers for the complete assembly (which includes the probe, well, connector, etc.) and part numbers for individual components (probe only, well only, etc). Verify that the part number ordered is what you need.

Figure 1

111Q0280818 – Old p/n 028818. Probe only, 3/16" x 4" bare wire leads. Used in all Frick units until 8/97. **Obsolete.** Replaced by **649A0979G01** Assembly. Well only – 990A0014H01.

649A0979H01 – Probe only, 3/16" x 4" w/DIN connector. (Baltimore Parts Only Temp Probe Replacement Kit) - replaces **111Q0280818**. This is an RTD with electronic circuitry to simulate an ICTD. See Fig. 4 for DIN Connector.

649A0979G02 – Assembly, 3/16" x 4" (Class 1 Div 2 application) - replaces **111Q0280818** in hazardous duty areas. **649A0979H02** – Probe only, 3/16" x 4" bare wire leads - with circuit board - used in hazardous duty areas. See Fig. 4 for DIN Connector.

Figure 2

640A0035H01, -H02, -H03, -H04 – Probe only, 5/16" x 1" bare wire leads (+5 C, +.5 C, +1 C, +2.5 C Tolerance) (Copper - For Compressors). Used from 8/97 forward in RDB, RWBII & RXF 12-50. Also RXF 58-101 8/97 to 4/01. Well only – 990A0062H01.

640A0035H21, -H22 – Probe only 5/16" x 1" bare wire leads (+5 C, +.5 C Tolerance) (Stainless - Air stream or clean room) Well only – 990A0062H01. This stainless steel sensor is for air streams or where there is no stainless steel well used.

Figure 3

913A0097G01 - Assembly w/DIN. **913A0094H01** probe only 5/16" x 4". **Obsolete**, replaced by **639A0151G01** or **639A0152H01** Assemblies. Check measurements on attached drawings to determine which one you have. See Fig. 4 for DIN Connector.

639A0151G01 Assembly Mercury, supersedes **913A0097G01** (no connector included). Assembly includes thermal compound 913A0100H01. **639A0151H01** Mercury Probe only w/DIN - (no connector included). Current production: RWFII, RWF & RXF 58-101. * See Fig. 4 for DIN Connector.

639A0152H01 Mercury Temp Sensor Retrofit w/DIN connector. Current production: RWFII, RWF & RXF 58-101. * See Fig. 4 for DIN Connector.

Figure 4

649A0890G01, -**G02** – Assembly, same as **913A0097G01** (G01 is strain relief DIN, G02 is 1/2" NPT DIN). Used in the past as replacement for **111Q0280818**.

639A0151G02 Assembly Mercury, supersedes **649A0890G01** - (Strain Relief DIN).*
639A0151G01 Probe only. **913A0098H01** Well only. **649A0890H01** DIN Connector only.

639A0151G03 Assembly Mercury, supersedes **649A0890G02** - (1/2" NPT DIN).*
639A0151G01 Probe only. **913A0098H01** Well only. **649A0890H02** DIN Connector only.

Figure 5

913A0101H01 – Assembly Hans-Buch, 5/16" w/DIN connector. **913A0101H11** probe only. **Obsolete**, replace with **639A0152H01**. See Fig. 4 for DIN Connector.

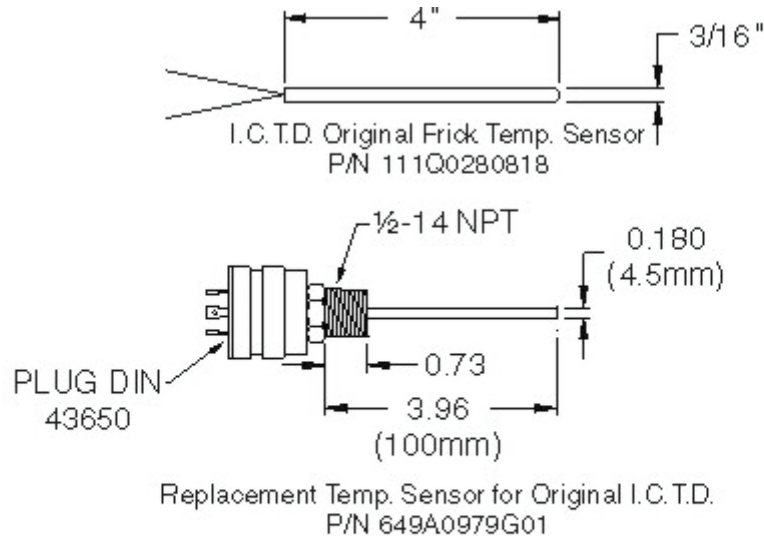
649A0994H01 - 5/16" x 1 1/2" w/DIN connector - Hans-Buch field retrofit for **913A0101H01**. RWF & RXF 58-101 units. **Obsolete**, replace with **639A0152H01**. See Fig. 4 for DIN Connector.

639A0152H01 Mercury Temp Sensor Retrofit, supersedes **649A0994H01** & **913A0101H11**, 6"L.* See Fig. 4 for DIN Connector.

*All 639A0151 and 639A0152 sensors have the 1.0 Microfarad, 50V Ceramic Capacitor installed for RFI suppression. This suppresses noise from walkie-talkies and VFD/VSD Drives.



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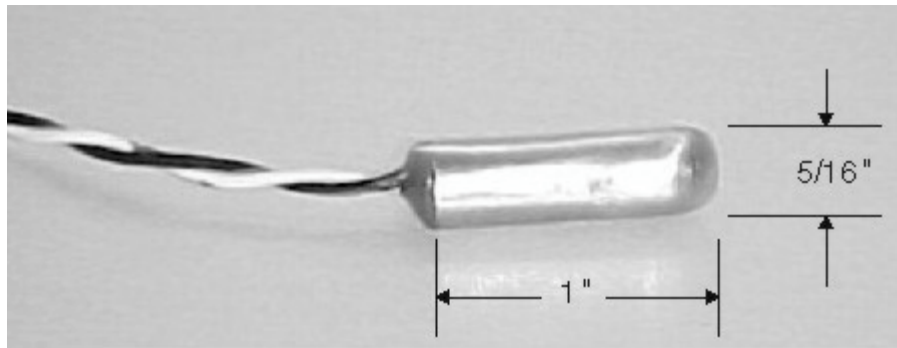


When replacing the original probe with 649A0979G01, the pull ell on the top of the existing well must be removed so this probe may be screwed into the well.
The white wire from the cable should be attached to terminal one, and the black or red wire should be attached to terminal two in the DIN connector. Well p/n 990A0014H01.



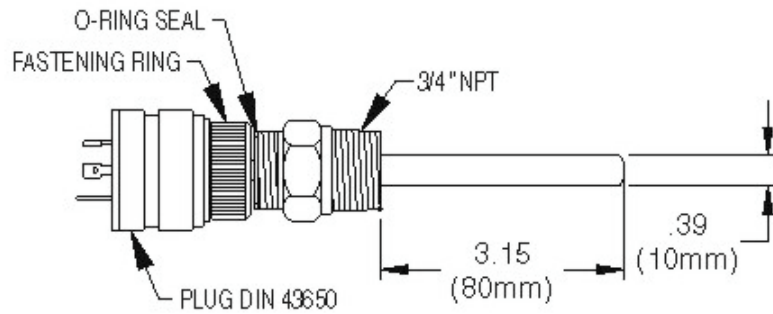
649A0979G02 – Assembly, 3/16" x 4" (Group 1 Div 2 application) - replaces **111Q0280818** in hazardous duty areas. **649A0979H02** – Probe only, 3/16" x 4" bare wire leads - with circuit board - used in hazardous duty areas.

Figure 1 – 111Q0280818, 649A0979G01 & 649A0979G02

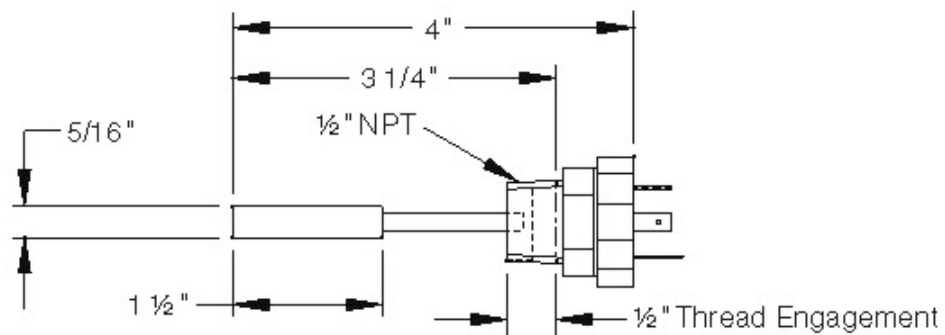


640A0035H01 Temperature Probe.
Usage began 1997.
Current for RDB, RWBII, and RXF units 12 - 50.
Well is 990A0062H01

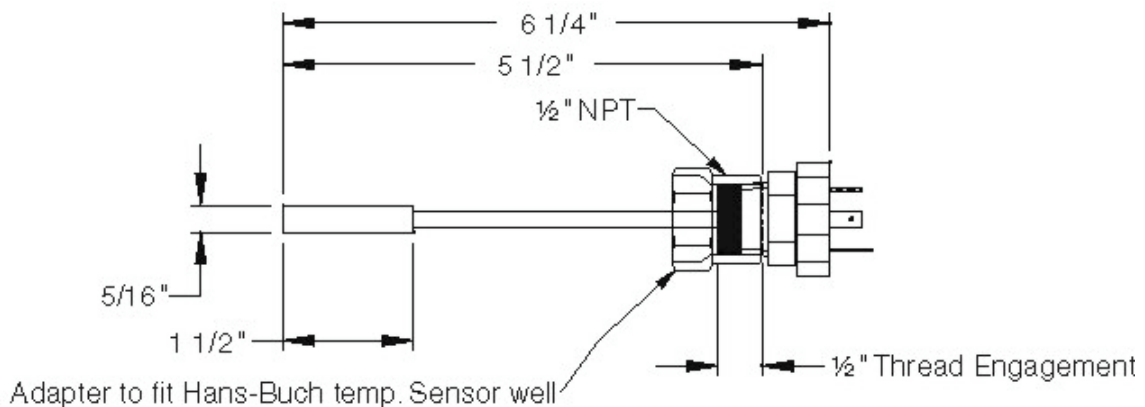
Figure 2 - 640A0035H01



913A0101H01 above was the first temperature probe used in RWF units. The well, 913A0098H01, was included with this assembly. This probe was replaced with assembly 913A0097G01 which in turn was superseded by assemblies 639A0151G01 or 639A0152H01 below.

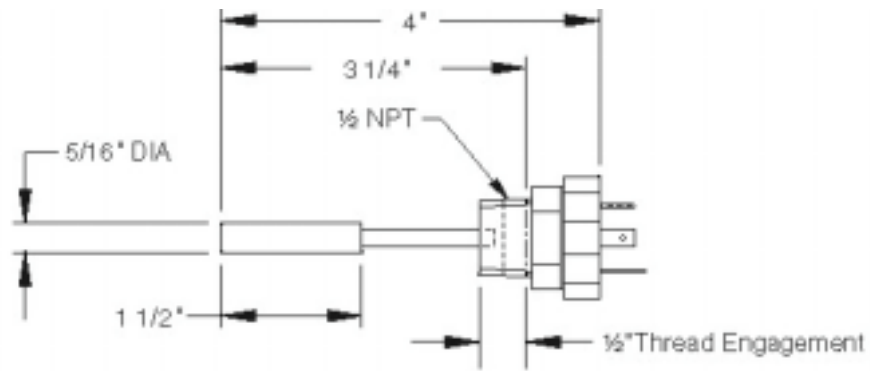


639A0151G01 Shown less well 913A0098H01



639A0152H01 Retrofit

Figure 3 - 913A0101H01, 639A0151G01, & 639A0152H01



649A0890G01, -G02 above, same as 913A0097G01, -G02
 (-G01 is strain relief DIN, -G02 is 1/2" NPT DIN)
 649A0890G01 strain relief DIN replaced by 639A0151G02 below.
 649A0890G02 1/2" NPT DIN replaced by 639A0151G03 below.

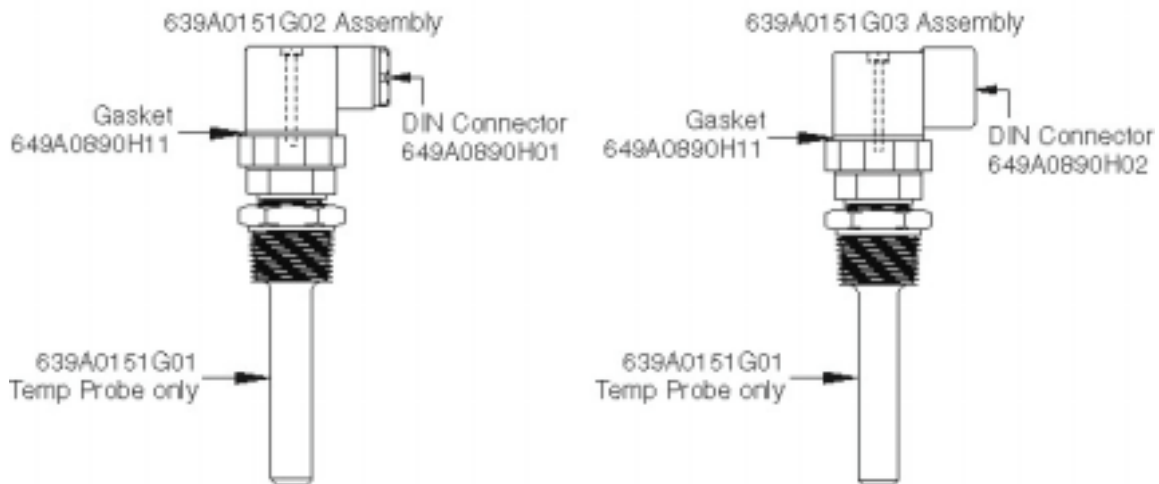
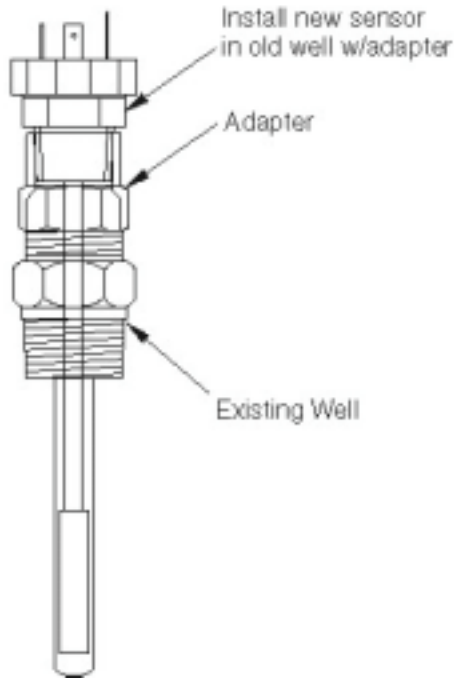


Figure 4 – 649A0890G01, 913A0097G01, -G02, 639A0151G02, -G03

639A0152H01
New Mercury Temp Sensor Retrofit
for RWF



913A0101H01
Old Hans-Buch Temp Sensor
being replaced on RWF

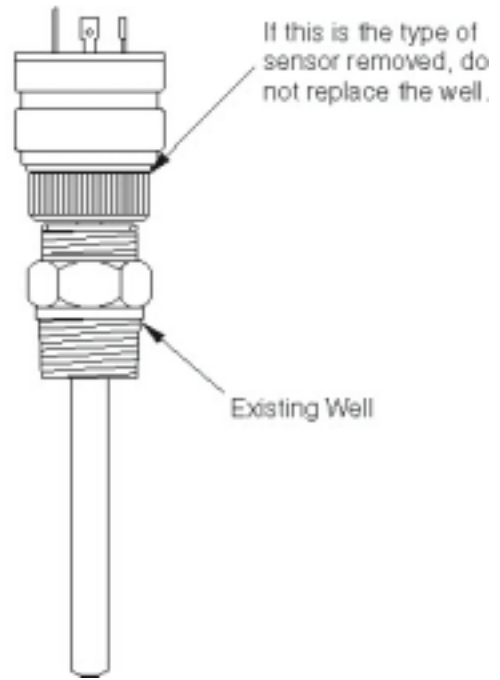


Figure 5 – 639A0151H01 & 913A0101H01

	Part Number	Connection	Device Type	Supersedes	Current
Obsolete	280818	Wire Leads	ICTD		
	111Q0280818		RTD		649A0979G01
	111Q0280818		RTD + Converter		649A0979H02
	913A0094H01	DIN			639A0151H01
	913A0097G01	Assembly			
	649A0979H01	DIN			
	649A0979G01	Assembly	DIN		
	649A0979H02	Wire Leads			
	649A0979G02	Assembly	DIN		
Obsolete	913A0101H11	DIN	Hans-Buch		639A0152H01
Obsolete	649A0994H01	DIN	Hans-Buch	913A0101H11	639A0152H01
	649A0890G01	DIN - Strain			
	649A0890G02	DIN - 1/2"			

Current Temperature Probes and Assemblies

Supersedes

639A0151H01	Bare Probe	DIN - Strain		913A0094H01
639A0151G01	Assembly	DIN - Strain		913A0097G01
639A0151G02	Assembly	DIN - Strain		649A0890G01
639A0151G03	Assembly	DIN - Strain		649A0890G02
639A0152H01	Assembly	DIN - Strain		649A0994H01
649A0890H01	DIN Connector - Cable Strain Relief			
649A0890H02	DIN Connector - 1/2" FPT			
649A0890H11	Gasket			
640A0035H01		Wire Leads		Copper
640A0035H02		Wire Leads		Copper
640A0035H03		Wire Leads		Copper
640A0035H04		Wire Leads		Copper
640A0035H21		Wire Leads		Stainless
640A0035H22		Wire Leads		Stainless

You can't beat the system when it's all FRICK

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