



Genie[®] Direct Drive 752 Installation & Operation Instructions

Manufacturing Contact Information

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Safety Warnings

- ⚠ Failure to abide by any of the safety warnings below may result in equipment failure or serious injury and death.
 - ▶ Do not exceed any equipment pressure ratings
 - ▶ The probe must be installed into the process line by means of the appropriate size female full port ball valve
 - ▶ Only the lowest wrench flats on the base, nearest to the NPT male threads, can be used when installing into the process ball valve
 - ▶ **DO NOT** use the wrench flats on the packing adjustment nut, located on the top of the base, for installation into process ball valve.
 - ▶ Not designed for external fire.
 - ▶ Prior to use in a system, a properly sized relief device is to be installed which limits the use to 110% of the MAWP.
 - ▶ This product may vent while being installed, operated, or maintained. The user should follow company safety practices concerning Personal Protective Equipment (PPE) as well as any and all OSHA, state and local regulations.

Tools Required

- ▶ 1-3/8" open end wrench
- ▶ 7/16" open end wrench
- ▶ (2) 7/8" open end wrenches
- ▶ 1-3/16" open end wrench

Fittings Required

- ▶ Appropriate size female full port ball valve

Technical Specifications

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Maximum Pressure Rating	NPT: 3,750 psig (258.6 barg) Unibody flanged: ANSI classification specific
Temperature Range	-40°F (-40°C) to 300°F (149°C) * Actual limit depends on sealing material chosen. Refer to Temperature Range Comparison Chart.
Port Size	Auxiliary: 1/8" female NPT with vent valve installed from factory
Probe Lengths For other lengths contact the factory.	L: 8", 12", 18", 24", 36", 48"(custom) A: ~ 23", 27", 33", 39", 51", 63" Refer to L & A dimensions on back
Process Connection Requirement	3/4", 1" or 1.5" NPT full opening threaded or flanged valve Ball, gate and double block and bleed valves are all suitable for use as long as their inner diameter is not less than 3/4". 1" NPT or larger process connection required for seal welding.
Valve Requirement customer provided	Straight-through path with minimum bore of 0.75" (1.91 cm)
RTD Specifications	1/8" diameter stainless steel sheath 1/2" NPT conduit connection 100 Ω Class "A" DIN Platinum European curve ($\alpha = 0.00385$)
Wetted Materials	*Machined parts: 316/316L stainless steel / NACE compliant and Kevlar [®] threaded bushing All other metal parts: stainless steel / NACE compliant Sealing material: User defined * Other materials available on request.



Installation Instructions

Step 1. Install to process valve

- ▶ Be sure the ball valve to the process line is closed
- ▶ Apply a thread sealant, such as Teflon[®] Tape, to the male threads on the bottom of the probe
- ▶ Install the probe into the process ball valve using a 1-3/8" open end wrench **ONLY** on the lowest wrench flats on the base, nearest to the NPT male threads (see Figure 1)

Step 2. Pressurize the probe

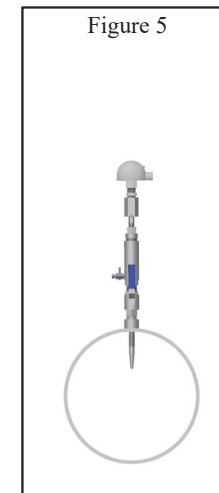
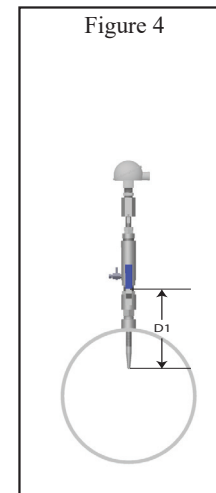
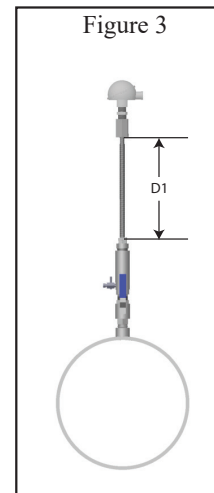
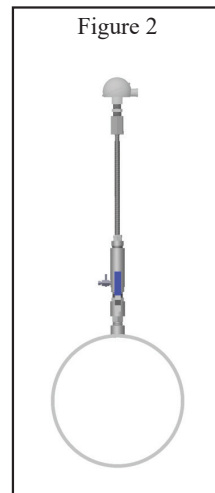
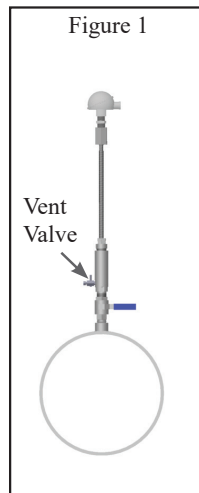
- ▶ Be sure the vent valve in the auxiliary port is closed (see Figure 1)
- ▶ Slowly open the ball valve to the process (see Figure 2)

Step 3. Lowering the probe to proper depth

- ▶ Decide the depth needed for the probe (D1) by determining from the top of the full port process ball valve to the desired end of the probe in the pipeline (see Figure 4)
- ▶ Apply the depth (D1) to the probe from the top of the base up the threaded rod to determine the lowering stopping point (see Figure 3)
- ▶ Install the 2 depth marking nuts on the threaded rod at the predetermined lower stopping point. Using 2 7/8" open end wrenches, rotate the upper nut clockwise and the lower nut counterclockwise simultaneously until the nuts are locked firmly in place.
- ▶ Lower the probe to the proper depth by using a 7/16" open end wrench only on the wrench flats of the threaded rod of the probe (Figure 5).

Step 4. Leak testing the probe connections

- ▶ Using a leak detector, check for leaks at the following locations: process connection, probe packing seal, and additionally any other connection made during the probe installation.
- ▶ If leaking occurs through the probe packing gland, use a 1 3/16" open end wrench to tighten the packing seal plug until the leak stops. **DO NOT OVERTIGHTEN.**
- ▶ The amount of torque required to seal the packing gland will vary with process conditions and the sealing material. Seals with higher durometer, such as our RGD resistant HNBR and RGD resistant HNBR 985, will require significantly more torque than the standard seals. These seals, at higher pressure, may require as much as 75 ft-lbs of torque to produce a leak tight seal.
- ▶ Be aware that the packing gland may need to be tighten periodically as conditions change or as the packing material wears during insertion/retraction.



Removing Probe for Service

Step 1. Retract the probe

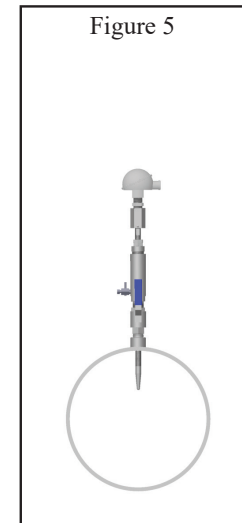
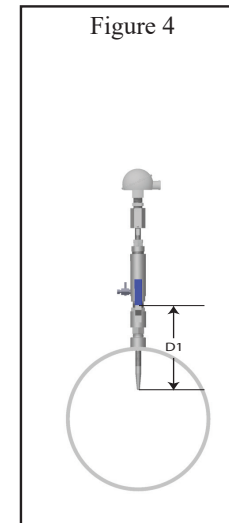
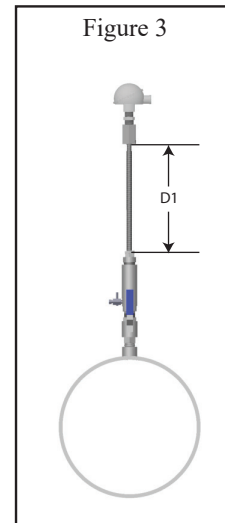
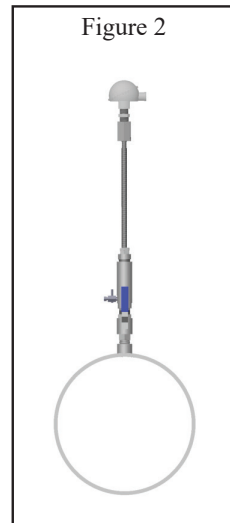
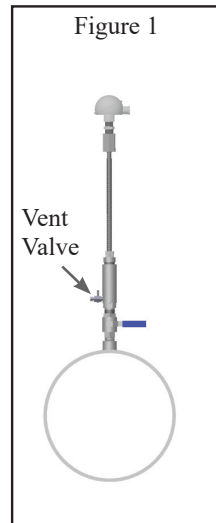
- ▶ Retract the probe by using the 7/16" open end wrench only on the wrench flats of the threaded probe.
- ▶ Turn the threaded probe until it comes to a noticeable stop in its original position. (See Figure 2)

Step 2. Isolate and Vent the Probe

- ▶ Slowly close the ball valve to the process. If resistance is met when closing the valve be sure the probe is retracted 100%.
Note: If the probe is closed in the ball valve, the threads on the probe could be damaged.
- ▶ Use the factory supplied vent valve in the 1/8" NPT auxiliary port and a 7/16" wrench to bleed remaining process that is trapped between the closed process valve and the probe body. (see Figure 1)

Step 3. Remove from process valve

- ▶ Remove the probe from the process valve using a 1-3/8" open end wrench **ONLY** on the lowest wrench flats on the base, nearest to the NPT male threads (see Figure 1)



Model Numbering & Additional Part Numbers

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Your model number is determined by your specific needs. Choose options below.

Sealing material	0 = PTFE/Neoprene rubber	J = RGD resistant HNBR	(other materials available upon request)
Process connection	3 = 3/4" NPT	4 = 1" NPT	6 = 1.5" NPT
Probe insertion length (L)	8, 12, 18, 24, 36, 48 inches (24" maximum for exotic materials)		
Sealing material replacement	Part # 75X-5_0	(sold separately)	
Speed wrench	Part # ACC-SW	(sold separately)	

How to build the model number:

