

CONVEYOR COMPONENTS COMPANY

Division of Material Control, Inc.

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MODEL CT-200G / CT-201G SERIES 3 WIRE PROBE INSTRUCTIONS



WARNING:

DEATH or SERIOUS INJURY may occur.

Before installing or adjusting, shut down and physically lock-out the conveyor system.

PROBE SPECIFICATIONS:

Standard heavy-duty probes (models: CT-201G and CT-201GN) are 9" [32 cm] long.

Compact probes (models: CT-200G and CT-200GN) are 6" [15cm] long.

The probes are certified for use in ambient temperatures within -25 to 40 °C [-13 to 104 °F] with the probe surface temperature not exceeding 85 °C [185 °F].

The CT probes will remain operational at temperatures within -37 to 90 °C [-36 to 194 °F].

Probes are available in optional stainless steel construction and with a paddle for use in applications where the materials are moving.

CT-200G, CT-201G Mercury, SP/ST switch, normally closed when vertical
Electrical (Non-UL): 1.5 A @ 120 VAC, 0.75 A @ 220 VAC, 1.5 A @ 5 VDC, 1 A @ 12 VDC, 0.5 A @ 24 VDC
Electrical (UL): <50 mA @ 12 VDC supplied by CT series intrinsically safe controller
Actuation angle: Nominal 15° (10° – 30°) from vertical

CT-200GN, CT-201GN Non-Mercury, SP/ST switch, normally closed when vertical
Electrical (Non-UL): 0.25 A max, 60 V max, 3 VA AC/DC max.
Electrical (UL): <50 mA @ 12 VDC supplied by CT series intrinsically safe controller
Actuation angle: Nominal 25° (10° – 30°) from vertical; Remake approx 8°

Options:

S (CT-200SG) Stainless steel construction
P (CT-200GP) Welded on paddle
C-size (CT-200GC) Welded on coupling; specifies pipe thread from 3/4 to 1-1/4 NPT or 3/4 BSP
Default for CT-200G(N)C is 3/4" NPT.
Default for CT-201G(N)C is 1-1/4" NPT.



WARNING: CT-200G and CT-201G series probes are intrinsically safe ONLY when properly installed with Conveyor Components Company manufactured intrinsically safe controller models: CT-105, CT-106 or CT-107 (includes suffixes B and/or E); or as replacements for use with CT-103 or CT-104.

WIRING:

All wiring must comply with applicable Local, Federal, and State codes. Probes are supplied with 16-3 type SO connection cable attached. The probe cable should be connected to the CT controller through the appropriately marked conduit opening only. The cable length is supplied as specified per order up to a maximum of 5,000 feet [1524 meters] for use with the CT-105, CT-106 or CT-107 control unit and a maximum of 175 feet [53 meters] for use with the CT-103 or CT-104 control unit. If not specified, the probe is supplied with 25 ft. [7.62 m] of cable. The cable for intrinsically safe probes may be spliced up to the appropriate maximum length, provided the splices are properly sealed for the cable's environment.

PROBE INSTALLATION:

The probe should be suspended using a fixed support at a position where it will easily intercept the bulk material at the desired indication point. There must be a free flow of material both to and away from the probe. In some

installations, it may be necessary to install a baffle or shield above the probe assembly to protect the probe and cable from product surges.

Multiple probes may be installed in a single controller provided the sum total length of cable does not exceed the allowable limits. Wire probes in series when installing with vertical orientation as the NORMAL position and horizontal orientation as the ALARM position. Wire probes in parallel when installing with horizontal orientation as the NORMAL position and vertical orientation as the ALARM position.

Figure 1: PROBE DIMENSIONS

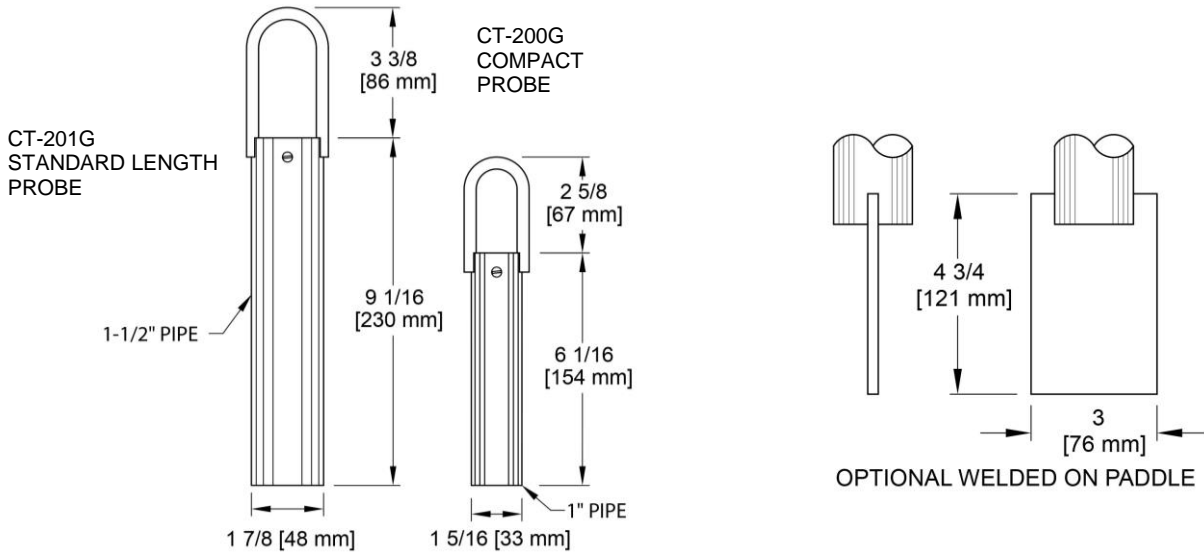


Figure 2: PROBE AND COUPLING OPTIONS

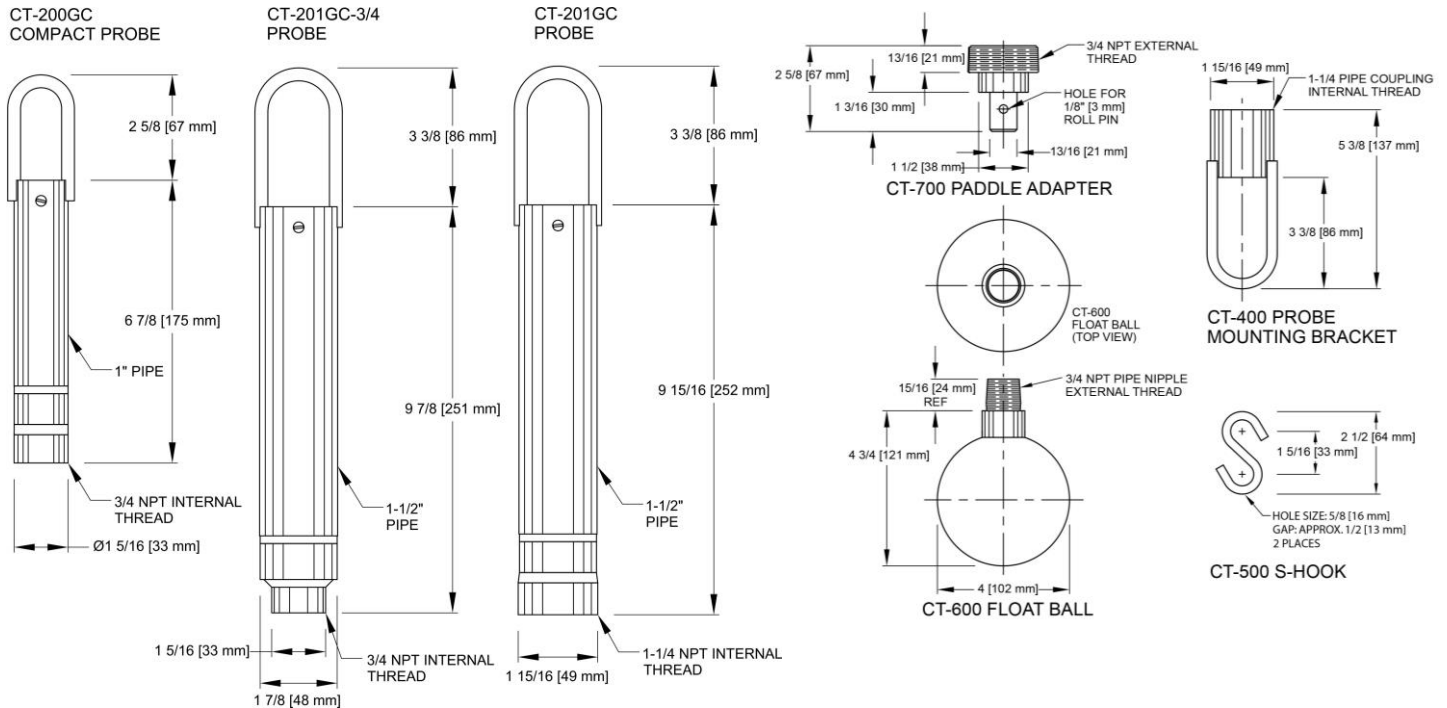


Figure 3: TYPICAL INSTALLATIONS

