



Bulk CO<sub>2</sub>

# Technical Service Bulletin

**Component Change**

**April 09, 2018**

**TSB-BEV-1019**

**Date:** April 09, 2018

**Subject:** Beverage tanks Differential Pressure gauge (DP gauge) manufacturer change.

**Products Affected:** All new and retrofittable (as needed) Beverage tanks equipped with Differential Pressure gauges (DP gauge).

**Description:** The DP gauge is a liquid level gauge offered on Beverage tanks manufactured by Chart. Historically Chart has used Orange Research DP gauges as an option to read liquid level on Beverage tanks, however recently Chart set out to establish not only a better functioning DP gauge but a more reliable one. To achieve this objective Chart collaborated with a manufacturer who specializes in high quality instrumentation, Wika, to manufacture a highly robust and high end DP gauge. The specific benefits over the Orange Research DP gauge are listed below.

- Increased visibility of display from 1" (Orange Research) to 1-1/2" (Wika) size
- Improved internal mechanisms to prevent sticking and reading errors
- Single side over pressure rated up to 350 PSI
- Working pressure rated up to 600 PSI
- ±5% Accuracy for the full scale range, rather than just at the 30% level found on the Orange Research DP gauge.
- Offered with or without 0-5V Telemetry Output



Figure 1. Orange Research DI Figure 2. Wika DP Gauge



Figure 3. Wika DP Gauge With Telemetry



Figure 4. Wika DP Gauge Telemetry Wiring Schematic

The part number table below shows information regarding what new Wika DP gauge part numbers are replacing the old Orange Research DP gauges.

OLD		TO	NEW		
PART NUMBER	DESCRIPTION		PART NUMBER WITHOUT TELEMETRY	PART NUMBER WITH TELEMETRY	DESCRIPTION
14346977	DIFF PG 0-36" O.R.	→	21094534	21292329	DIFF PG 0-36" WIKA
14346985	DIFF PG 0-53" O.R.	→	21094533	21272313	DIFF PG 0-53" WIKA
15076542	DIFF PG 0-53" O.R.	→	21094533	21272313	DIFF PG 0-53" WIKA
15096551	DIFF PG 0-50" O.R.	→	21094529	21292328	DIFF PG 0-50" WIKA

## DP TELEMETRY CABLE PART NUMBER

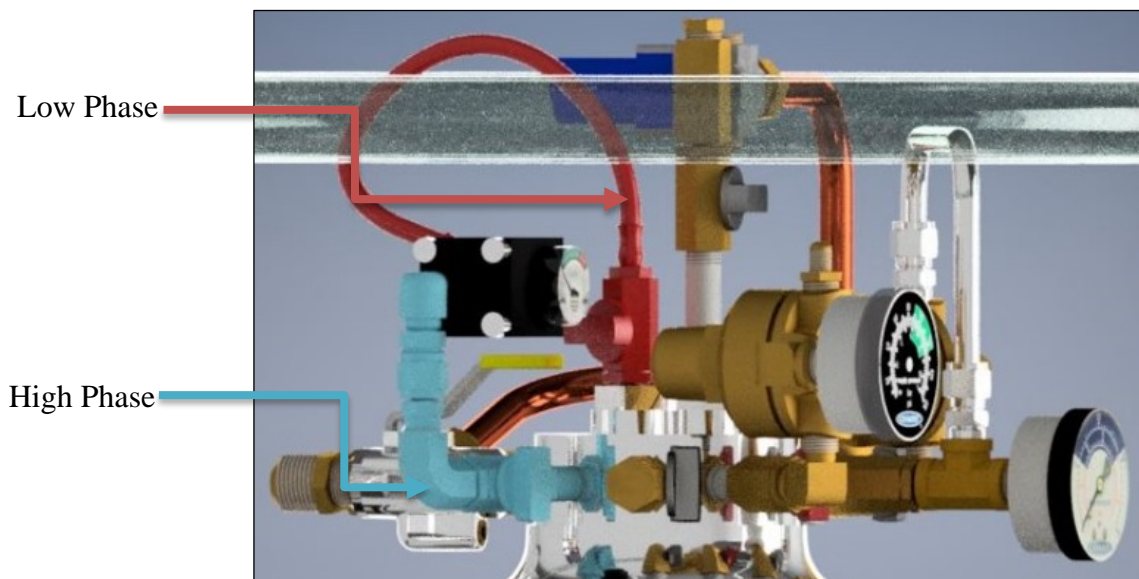
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### *Installation Instructions for the Wika DP Gauge (With or Without Telemetry):*

- 1) Isolate the high and low phase side of the DP gauge currently installed on the tank.
- 2) Undo the fittings on the high and low side and remove the DP gauge from the tank.
- 3) With new fittings installed/transferred onto the Wika DP gauge install the DP gauge into the circuit ensuring all fittings are secured tightly.
- 4) To activate the DP gauge circuit you must first open the **HIGH** side of the DP gauge first before opening the low side. This ensures the gauge reads correctly upon initial activation. **Reference Picture 1 below for the high and low phase location.**

#### **Note:**

- *If activation of the DP gauge is done by opening the low side first before the high side the DP gauge may not read correctly upon initial activation of the DP gauge. The typical sign that the low side of the DP gauge was opened first is the DP gauge will read 75% even if the tank is full.*
- *To reset a DP gauge if improperly activated, isolate both the high and low side of the DP gauge circuit then relieve the pressure on each side of the DP gauge by loosening the fittings. Once the pressure is relieved and the needle drops to empty retighten the fittings and follow the activation step 4 above to properly activate the DP gauge.*



*Picture 1. High and Low Phase Location*

**Contact:** If you have concerns or questions relative to this action, please contact your Chart Technical Service Representative at 1-800-253-1769. Thank you for depending on Chart for high product quality and service.

