Varec

A COGNESENSE BRAND

8200

Current Output Transmitter

For terminal instrumentation engineers, control systems integrators, and maintenance supervisors managing aging float & tape gauge installations who need to bring legacy instruments to current PLC, DCS, and inventory standards without replacing the mechanical gauging, the 8200 Electronics Upgrade delivers a drop-in encoder and electronics replacement that fits inside the existing 8200 Current Output Transmitter housing. Once installed, the unit operates as an 8920-class transmitter with a capacitive absolute encoder, a local LCD display, and an industry-standard 4–20 mA output for PLC/DCS integration. An optional dual loop adds temperature output, and pending HART capabilities streamline future expansion. Unlike full gauge replacement, the 8200 retrofit reduces downtime, extends equipment life, and brings legacy sites into compliance without touching the tank, the conduit, or the mechanical gauging.

Key Features

Drop-In Mechanical Compatibility

Fits inside the existing 8200 COT enclosure, preserving all mounting hardware and field conduit.

High Accuracy Absolute Position Sensing

Absolute capacitive encoder with direct drive gearing delivers level accuracy to ±1/16 in (≈1.58 mm).

Integrated Local User Interface

Tankside capacitive touch LCD supports onsite configuration and diagnostics.

Flexible Power Options

Loop powered DC (20–48 VDC) or optional AC power (85–305 VAC) variants available.

Analog Output & Communications

Single 4–20 mA loop for level; optional second loop for temperature; HART output pending.

Configurable Alarm & Control Outputs

Optional SPDT cam operated limit switches (2 or 4) for alarms and relay outputs.

Typical Applications

LEGACY COT MODERNIZATION

Upgrade aging 8200 COTs on 2500/2520 float and tape gauges without changing tank penetrations or conduit runs.

ANALOG SIGNAL STANDARDIZATION

Standardize 4–20 mA level signaling to PLC/DCS across mixed legacy sites for consistent control-room integration.

TEMPERATURE & LOCAL DISPLAY ADDITION

Add temperature monitoring and tank-side display while retaining existing mechanical gauging infrastructure.

Benefits

Minimal Installation Effort & Downtime

Drop-in mechanical and electrical compatibility allows fast retrofit using existing hardware and wiring, reducing installation time and disruption.

Simplified Commissioning & Calibration

Onboard display enables intuitive setup of level range, units, and scaling, with straightforward zero and midpoint calibration performed locally.

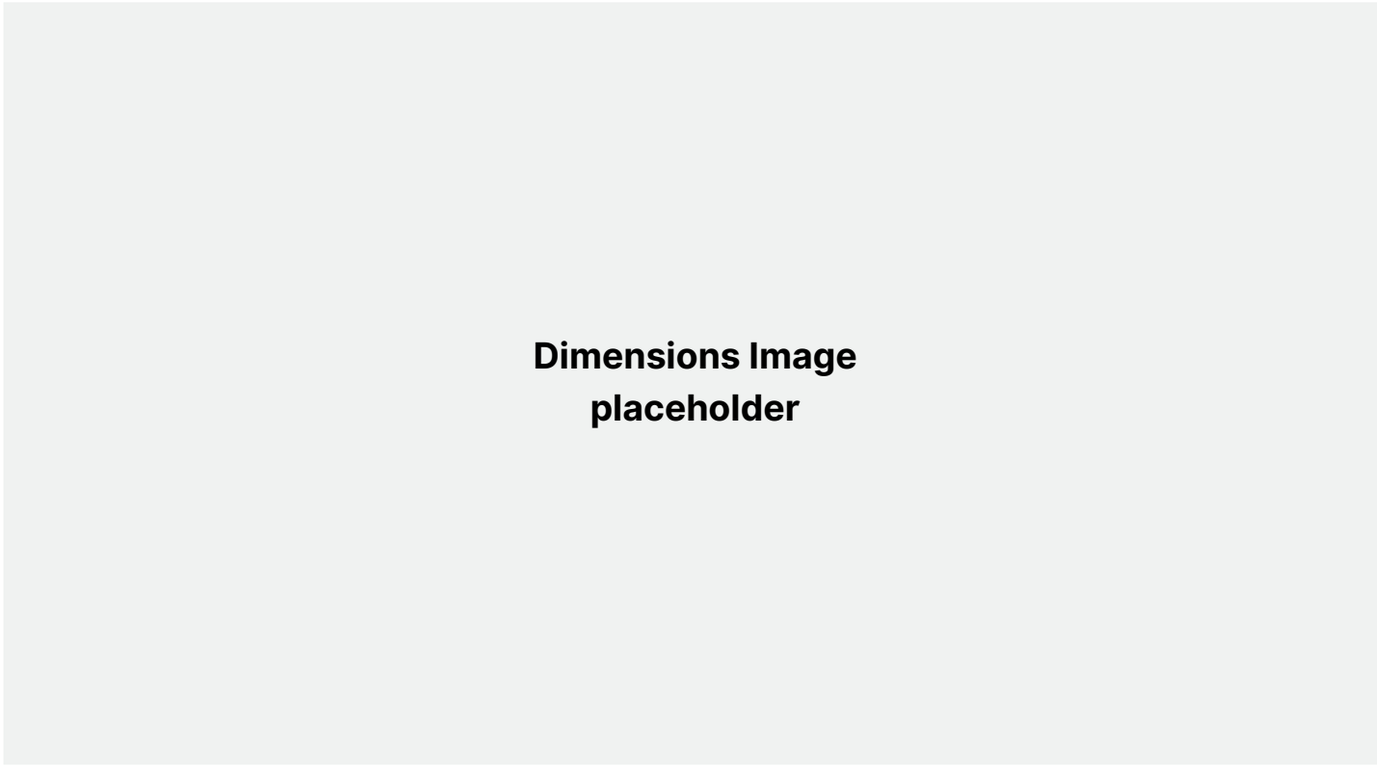
Improved Measurement Reliability & Confidence

End-to-end verification of 4–20 mA output ensures accurate, repeatable level measurement and reliable integration with control systems.

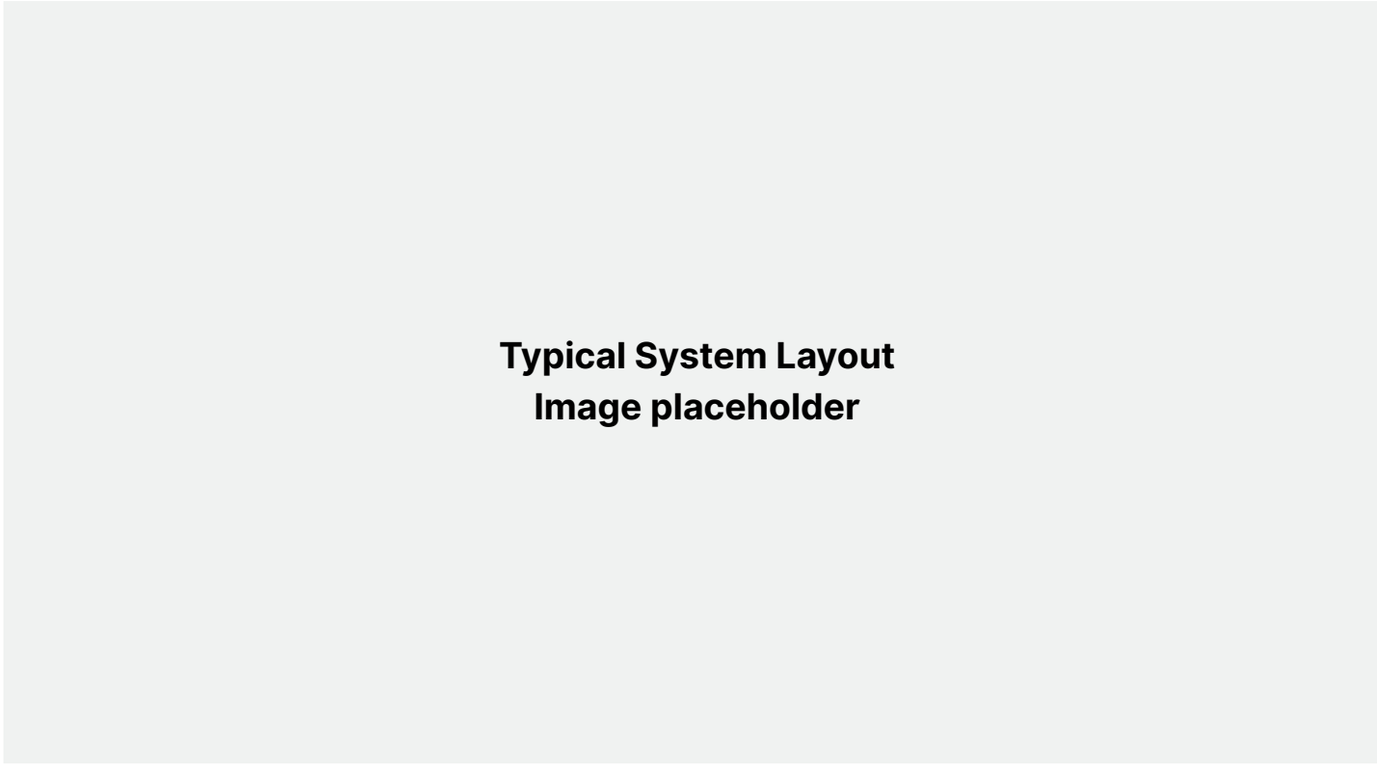
Technical Specifications

Specification	Details
Accuracy	±1/16 in (1.58 mm) level
Repeatability	≈0.16% of full range
Level Range	Up to 120 ft (36 m)
Primary Output	4–20 mA (level)
Optional Output	4–20 mA (temperature); HART (pending)
Power — DC	20–48 VDC (loop-powered)
Power — AC	85–305 VAC (active power variant)
Enclosure	Existing 8200 cast aluminum housing retained
Options	2 or 4 SPDT cam-operated limit switches; external and junction box configurations

Dimensions



Typical System Layout



Model Number Selection

13-8200

8200 Electronics Upgrade

	Power Input
AC	AC Powered
DC	Loop Powered

	Limit Switches
0	No Limit Switches
2	2 SPDT Limit Switches (18° adjustable dwell, positive activation)
4	4 SPDT Limit Switches (18° adjustable dwell, positive activation)

	Limit Switch Range
N	N/A Range, No Limit Switches
A	0-25 ft Limit Switch Range
B	0-50 ft Limit Switch Range
C	0-100 ft Limit Switch Range
D	0-7.5 m Limit Switch Range
E	0-15 m Limit Switch Range
F	0-30 m Limit Switch Range

Example Order Code: 13-8200-AC-4-A

Summary

The 8200 Current Output Transmitter delivers 8920-class level accuracy, a tank-side capacitive-touch display, and standard 4–20 mA output inside the existing 8200 COT housing - without new tank penetrations, cabinet redesign, or extended tank outage. It brings the 8200 COT into alignment with current PLC and DCS input requirements while preserving the installed housing, conduit, and mechanical gauging, and connects the upgraded instrument to FuelsManager® and SCADA platforms via RTU analog input.

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