

# DUAL-INPUT BENCHTOP CALIBRATOR

- REDUCES CALIBRATION ERRORS due to adverse environmental effects
- WRITES calibration information onto any SMART sensor
- CAPTURES VITAL INFORMATION used to determine operational and diagnostic information
- IDEAL FOR ANY MARKET with seven imbedded languages including English, French, German, Italian, Spanish, Portuguese, and Chinese
- CONNECTS QUICKLY to Variopol and standard cable sensors
- Ideal for LAB ANALYSIS of process solutions
- LABELED CUTOUTS HOLD SENSOR upright in buffer filled beakers during calibration without the fear of spills



## APPLICATIONS

The BenchTop calibrator is the ideal solution for remote calibration of pH sensors. pH calibration is one of the most difficult procedures to accurately perform due to many adverse factors such as extreme temperatures, process versus buffer temperatures, and individual sensor performance. The BenchTop calibrator allows the user to control the environment during pH sensor calibration ensuring an accurate calibration every time.

Using the BenchTop calibrator in a controlled environment the user can accurately calibrate any Rosemount Analytical SMART sensor before it is inserted into the process. Maintenance personnel can calibrate all pH sensors in a controlled environment, then take them into the plant for insertion of the sensors into a process. Once the calibration information is uploaded into the process analyzer the pH measurement can be used to monitor or control the process accurately. Calibrating pH sensors in an operator's lab area saves time, reduces calibration errors and limits the amount of calibration solution needed to perform the same task out in the plant.

## FEATURES

The BenchTop calibrator uses the dual input Model 1056 SMART analyzer mounted in a corrosion resistant stand and pre-wired with a Variopol cable (24281-05). Standard cabled sensors are coupled to the analyzer with clearly labeled quick connect push pins for fast accurate connections. There is no need to wire to a terminal nor thread the cable through a cable gland opening. The four foot Variopol cable can accommodate all Rosemount Analytical submersion / insertion type sensors regardless if they are SMART enabled or not.

There are three cutouts fabricated into the base of the BenchTop calibrator. Each cutout holds a 250mL plastic beaker, which can be filled with calibration solutions holding the sensors up right during calibration. The holes are clearly marked so that solutions can be placed in the proper holder and a standard operating procedure can be written.

The easy to follow menu of the Model 1056 helps operators perform a calibration either in auto or manual buffer recognition mode. Because the model 1056 can

be programmed to display in seven different languages it is an ideal tool for any domestic or international market. The compact size and accuracy of the Model 1056 makes the BenchTop calibrator the perfect bench top tool or lab analyzer to ensure the accuracy of the plant's pH measurements.

Using Emerson Process Management SMART Variopool sensors saves time, eliminates manual record retention, and improves the accuracy of the calibration. Each SMART sensor retains the current calibration information in its memory and automatically uploads it to any SMART enabled analyzer. The Variopool connection allows for quick removal and installation of the sensor into a process without twisting wires or

removing cables through conduit. SMART or non-pre-amplified Variopool sensors can easily be removed, calibrated in the shop, and returned to service with minimal effort and a high confidence of accuracy.

SMART sensors not only retain the current calibration information but will retain up to five previous calibrations. Each calibration stores the type of calibration performed (example: buffer calibration, standardization), the sensor's slope, offset, temperature offset, glass impedance, and a count in days of its previous calibration. An operator can easily access this information to determine either a cleaning cycle or a calibration cycle for each process.

## 1056 SPECIFICATIONS - General

**Enclosure:** Polycarbonate. NEMA 4X/CSA 4 (IP65).



**Conduit Openings:** Accepts 1/2" or PG13.5 conduit fittings

**Ambient Temperature and Humidity:** 0 to 55°C (32 to 131°F). RH 5 to 95% (non-condensing)

**Storage Temperature Effect:** -20 to 60°C (-4 to 140°F)

### Hazardous Location Approvals -



-LR 34186

C US

Class I, Division 2, Groups A, B, C, & D  
Class II, Division 2, Groups E, F, & G  
Class III T4A Tamb= 50°C

Evaluated to the ANSI/UL Standards. The 'C' and 'US' indicators adjacent to the CSA Mark signify that the product has been evaluated to the applicable CSA and ANSI/UL Standards, for use in Canada and the U.S. respectively



Class I, Division 2, Groups A, B, C, & D  
Class II & III, Division 2, Groups E, F, & G  
T4A Tamb= 50°C Enclosure Type 4X

Equipment protected by double insulation

**RFI/EMI:** EN-61326

**LVD:** EN-61010-1



**Outputs:** Two 4-20 mA or 0-20 mA isolated current outputs. Fully scalable. Max Load: 550 Ohm.

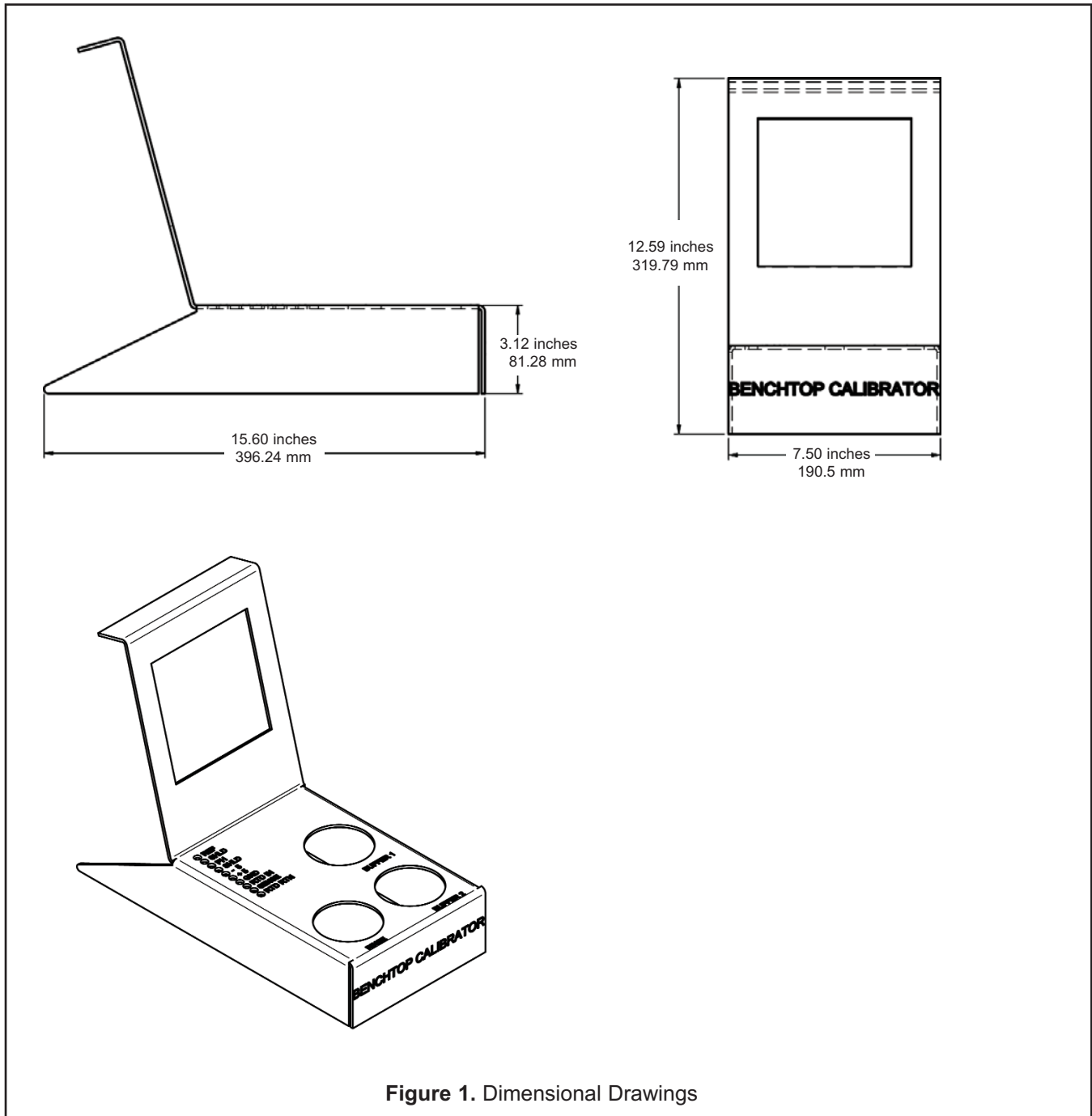
**Current Output Accuracy:** ±0.05 mA @ 25 °C

**Terminal Connections Rating:** Power connector (3-leads): 18-12 AWG wire size. Signal board terminal blocks: 26-16 AWG wire size. Current output connectors (2-leads): 24-16 AWG wire size. Alarm relay terminal blocks: 18-16 AWG wire size.

**Display:** Monochromatic graphic liquid crystal display. 128 x 96 pixel display resolution. Backlit. Active display area: 58 x 78mm (2.3 x 3.0 in.).

## Compatible SMART Sensors

High-temperature applications	Heavy-coating and fouling applications	Clean water applications	Clean water applications with possible poisoning
PERpH-X	TUpH	General Purpose	Triple-junction
3300HTVP 3400HTVP 3500/3500VP	396P/396PVP 396VP 396RVP/398RVP	399/399VP	389/389VP 385+



## ORDERING INFORMATION

The dual-input BenchTop Calibrator offers an analyzer with dual sensor input. Standard features include two isolated inputs, seven local languages, two 4-20mA current outputs, removable connectors for line power and current outputs.

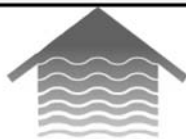
Dual-Input BenchTop Calibrator Ordering Matrix	
CODE	DESCRIPTION
S10119	BenchTop Calibrator (1056-03-22-32-AN-99SQ10167)

ACCESSORIES	
PART #	DESCRIPTION
905-3506	4 pH Buffer solution
905-3501	7 pH Buffer solution
905-3505	10 pH Buffer solution
24281-05	4 foot VP8 cable



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