



Quality Certificate

VWR® FOUR-CHANNEL ALARM TIMER

As per the manufacturer, the below product meets the following criteria:

North American Catalog No:	62344-641
Serial Number:	160717297
Description:	VWR ALARM TIMER 4-CHANNEL

Standards/Equipment:

Description	Serial Number	Due Date	NIST Traceable Reference
Non-contact Frequency Counter	26.6 2025	3/25/17	1000389556

Procedure: CAL-01
Cal Date: 8/29/2016
Due Date: 8/29/2018
Test Conditions: 23.7°C 61.0 %RH 1015 mBar

Calibration Data: (New Instrument)

Unit(s)	Nominal	As Found	In Tol	Nominal	As Left	In Tol	Min	Max	±U	TUR
Sec/24hr	0.000	0.000		0.000	-0.200	Y	-8.640	8.640	0.041	>4:1

This Instrument was calibrated using Instruments Traceable to National Institute of Standards and Technology. A test uncertainty ratio of at least 4:1 is maintained unless otherwise stated and is calculated using the expanded measurement uncertainty. Uncertainty Evaluation includes the instrument under test and is calculated in accordance with the ISO Guide to the Expression of Uncertainty in Measurement (GUM). The uncertainty represents an expanded uncertainty using a coverage factor $k=2$ to approximate a 95% confidence level. In tolerance conditions are based on test results falling within specified limits with no reduction by the uncertainty of the measurement. The results contained herein relate only to the item calibrated.

Nominal= Standard's reading; As Left= Instrument's reading; In Tol= In Tolerance; Min/Max= Acceptance Range; ±U= Expanded Measurement Uncertainty; TUR= Test Uncertainty Ratio. Accuracy=±(Max-Min)/2; Min= Nominal(Rounded)-Tolerance; Max= Nominal(Rounded) + Tolerance; Date= MM/DD/YY.

Maintaining Accuracy:

As per the manufacturer, the calibrated 4-CH Big Digit Timer should maintain its accuracy. There is no exact way to determine how long calibration will be maintained. 4-CH Big Digit Timers change little, if any at all, but can be affected by aging, temperature, shock and contamination.

Signed:

Linda K. Shine
Manager - Supplier Qualification
Global Compliance
VWR International LLC

Date: 05/08/2018