Handheld VAV Balancing Tool Catalog Page

The Handheld VAV Balancing Tool lets you set the parameters for VAV applications that reside on Metasys® system VMA16 Series, Field Equipment Controller (FEC) Series, or Advanced Application Field Equipment Controller (FAC) Series Controllers.

The VAV balancing parameters appear on the tool's LCD. A dial and two buttons let you navigate through intuitive menus to balance the VAV box. The menus are customized to the type of application residing in the controller. The balancing operation features an adjustable time-out parameter that returns the tool and controller to normal operation if you leave the controller in balancing mode.

The Handheld VAV Balancing Tool is lightweight and portable. It can plug into any model of network sensor to access the VAV controller.

The Handheld VAV Balancing Tool is compatible with the following Metasys system BACnet® protocol devices:

- FEC or FAC loaded with a VAV application
- VMA16 loaded with a VAV application
- NS Series Network Sensor connected to an FEC, FAC, or VMA16 loaded with a VAV application

Refer to the *Metasys® System Field Equipment Controllers and Related Products Product Bulletin (LIT-12011042)* for product application details.

If the product fails to operate within its specifications, replace the product. For a replacement product, contact the nearest Johnson Controls® representative.

Figure 1: Handheld VAV Balancing Tool

Features

- Allows VAV balancing and commissioning without a laptop.
- Connects directly to the controller or the controller NS Series Network Sensor via standard RJ-12 plug.
- Intuitive, menu-driven operation simplifies balancing tasks.

Ordering Information

Table 1: Handheld VAV Balancing Tool Ordering Information

Product Code Number	Description
NS-ATV7003-0	Handheld VAV Balancing Tool

Accessories

Table 2: Handheld VAV Balancing Tool Accessories

Product Code Number	Description
MS-BTCVTCBL-700	Cable Replacement Set for the MS-BTCVT-1 or the NS-ATV7003-0; Includes One 5 ft (1.5 m) Retractable Cable
MS-ZFRCBL-0	Wire Harness for Use with ZFR1811 Router. Allows ZFR1811 Router to function with FEC16xx Series, VMA16xx Series, FAC26xx Series, and FEC26xx Series Controllers in Conjunction with NS Series Sensors, Wireless Commissioning Converter, or DIS1710 Local Controller Display

Technical Specifications

Table 3: Handheld VAV Balancing Tool

Product Code	NS-ATV7003-0
Supply Voltage	9.8 to 16.5 VDC; 15 VDC Nominal, supplied by the Sensor Actuator (SA) Bus Port
Current Consumption	90 mA maximum
Terminations	RJ-12, 6-Position Modular Jack
Transmission Speed	**Serial Communication (SA Bus)** 9600, 19.2k, 38.4k, or 76.8k bps
Sensor Addressing	Fixed address of 198
Ambient Conditions	**Operating :** 0 to 50°C (32 to 122°F); 5 to 95% RH, Noncondensing; 30°C (86°F) Maximum Dew Point **Storage:** -40 to 85°C (-40 to 185°F); 5 to 95% RH, Noncondensing
Dimensions	80 x 80 x 25 mm (3.2 x 3.2 x 1.0 in.)
Weight	0.165 kg (0.365 lb)

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Table 3: Handheld VAV Balancing Tool

Compliance	United States: UL Listed, File E107041, CCN PAZX, UL 916, Energy Management Equipment; FCC Compliant to CFR47, Part 15, Subpart B, Class A
	Canada: UL Listed, File E107041, CCN PAZX7, CAN/CSA C22.2 No. 205, Signal Equipment Industry Canada, ICES-003
	Europe: CE Mark – Johnson Controls, Inc., declares that this product is in compliance with the essential requirements and other relevant provisions of the EMC Directive 2004/108/EC.
	Australia and New Zealand: C-Tick Mark, Australia/NZ Emissions Compliant
	BACnet International: BACnet Testing Laboratories™ (BTL) 135-2004 Listed BACnet Smart Sensor (B-SS)