



Xenta® 102-B

VAV Controller

Xenta 102-B is a zone controller VAV cooling applications. It is possible to switch between the heating and cooling via the network.

The controller keeps a constant temperature in the zone by controlling the airflow with the aid of a Belimo® VAV Compact. It is also possible to limit the airflow. By using a carbon dioxide sensor, the air quality can be controlled in the zone.

The controller is a LonMark compliant device that communicates on a LonTalk TP/FT-10 network via a twisted-pair, unpolarized cable. It is able to operate both as a stand-alone unit and as part of a system. All network variables can be monitored and configured via the Xenta OP, if the OP version is 3.11 or higher.

STR 100 is a range of wall modules intended to be used with Xenta 102.

There are plug-in terminal blocks available for the Xenta 100 series that can be attached to the existing terminals.

TECHNICAL DATA

Supply voltage 24 V AC -10% +20%, 50–60 Hz

Power consumption:

Controller with TAC Xenta OP 4 VA

Actuator supply max. 12 VA

Total max. 16 VA

Ambient Temperature

Operation 0 °C to +50 °C (32 °F to 122 °F)

Storage -20 °C to +50 °C (-4 °F to 122 °F)

Humidity max. 90% RH non-condensing

Mechanical

Enclosure ABS/PC

Enclosure rating IP 30

Flammability class, materials UL 94 5VB

Dimensions see Fig. 1

Weight 0.4 kg (0.88 lb.)

Inputs/Outputs

Inputs for occupancy sensor and window contact, X2–X3:

Voltage across open contact 23 V DC ±1 V DC

Current through closed contact 4 mA

Minimum pulse input duration X2/X3 250 ms / 15 sec.

Input for bypass button on wall module, X1:

Minimum pulse input duration 250 ms

Maximum current, LED 2 mA, for STR 100 series

Input for zone temperature sensor, B1:

Thermistor type NTC, 1800 Ω at 25 °C (77 °F)

Measuring range -10 °C to 50 °C (14 °F to 122 °F)

Accuracy ±0.2 °C (±0.36 °F)

Inputs for air flow and carbon dioxide sensor, Z1–Z2:

Measuring range 0–10 V DC

Accuracy ±0.05 V

Input setpoint adjustment on wall module, R1:

Type 10 kΩ linear potentiometer

Adjustment range ±5 °C (±9 °F)

Accuracy ±0.1 °C (±0.18 °F)

Output for air flow controller, Y1:

Output range 0–10 V DC

Maximum current 2 mA

Accuracy ±0.2 V

Application Program

Cycle time 15 sec.

Indication LED Colors

Power On green

Service red

LonMark Standard

..... LonMark Interoperability Guidelines

..... LonMark Functional Profile: VAV Controller

Communication protocol LonTalk

Physical channel TP/FT-10, 78 kbps

Neuron type 3150, 10 MHz

Agency Compliances

Emission:

CE EN 61000-6-3, C-Tick, FCC Part 15

Immunity:

CE EN 61000-6-1

Safety:

CE EN 61010-1

UL 916, C-UL US, Enclosed Energy Management Equipment

Approved for plenum installations

RoHS directive 2002/95/EG

Part Numbers

Controller 007305310

Manual 0-004-7516

Plug-in Terminal Blocks TAC Xenta 100 007309140