Product Data Sheet

Tracer™ UC600 Programmable Controller

Ordering number: BMUC600AAA0100011

The Tracer UC600 controller is a multi-purpose, programmable device. This field-installed device is designed to control the following types of equipment:

- Air-handling units (AHUs)
- Rooftop units
- Chillers
- Central heating and cooling plants
- Cooling towers
- Generic input/output (I/O) control

Features and Benefits

Feature	Benefit
BACnet MS/TP	An open standard building automation communications protocol which enables connections to other BAS systems and controllers
Scheduling—supports up to 3 weekly schedules	Easy to set up and access (3 schedule types supported: Analog, Binary, Multistate)
Graphics—support for up to 10 custom graphics with optional TD7 Display.	Perform overrides, link directly to alarms, reports, or other graphics directly from a graphic.
Custom data graphs	Create and view graphically formatted data logs. Up to 8 custom data graphs can be created with a maximum of 4 data logs per graph.
Configurable and fully programmable	• Factory programs available through quick configuration for lowest setup time • Programmable for flexibility to meet unique sequence or hardware needs
Total of 19 built-in I/O hardware terminations	Meets most applied product needs with built-in I/O or with additional custom programming on the controller
Expandable up to 120 hardware terminations (with the use of optional expansion modules)	Flexibility to meet additional equipment needs
Data logging—25,000 samples	Easier investigation of equipment, zone, or building problems
Removable connectors, DIN rail mounting, multiple service tool connections	Ease of installation and service

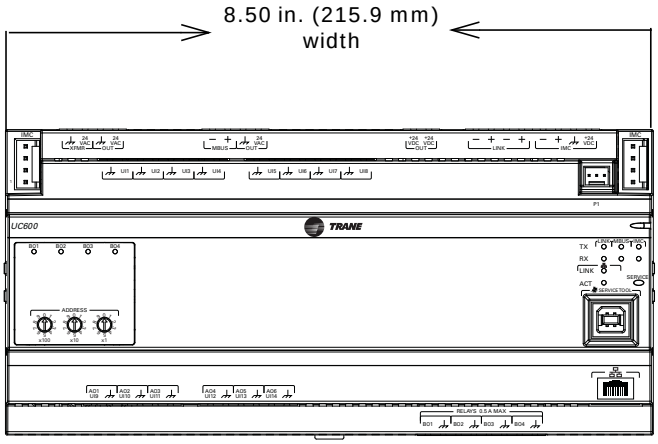
Controller Specifications and Agency Compliance

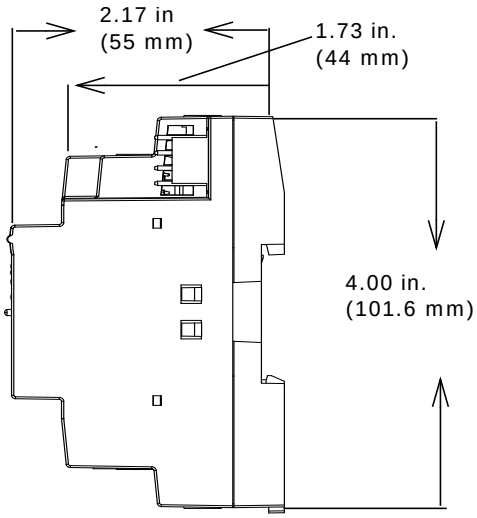
Storage	
Temperature:	-67°F to 203°F (-55°C to 95°C)
Relative humidity:	Between 5% to 95% (noncondensing)
Operating	
Temperature:	-40°F to 158°F (-40°C to 70°C)
Humidity:	Between 5% to 95% (noncondensing)
Power:	Input: 20.4–27.6 Vac (24 Vac, ±15% nominal) 50 or 60 Hz, 26 VA Output: (26 VA plus a maximum of 12 VA for each binary output) 24 Vdc, ±10%, device max load 600 mA
Time Clock:	On-board real time clock with 7 day backup
Mounting weight of controller:	Mounting surface must support 1.3 lb. (0.6 kg)
Environmental rating (enclosure):	NEMA 1
Installation:	UL 840: Category 3
Pollution	UL 840: Degree 2
Wiring / Transformer / Communications Protocol	
18 AWG is recommended for the circuit between the transformer and the controller. Data link protocol supported: BACnet MS/TP	
• UL listed, Class 2 power transformer, 24 Vac ±10%, device max load 26 VA. • The transformer must be sized to provide adequate power to the UC600 controller (26 VA) and external device outputs. • UC600 requires 26VA: 26VA is for UC600+ IO + two expansion modules (XM30 or XM32).	
Agency Compliance	
• UL916 PAZX, Open Energy Management Equipment • UL94-5V, Flammability • CE Marked • FCC Part 15, Subpart B, Class B Limit • BTL Mark—Advanced Application Profile (B-AAC)	

Input and Output Specifications

Input / Output type	Quantity	Types	Range	Notes
Universal Input	8	Thermistor	10kΩ – Type II, 10kΩ –Type III, 2252Ω – Type II, 20kΩ – Type IV, 100 kΩ	The UC600 provides 600 mA of DC power for 0–20 mA inputs and/or outputs, and to power expansion modules. See the power budget table in the *Tracer UC600 Installation, Operation, and Maintenance guide*, *BAS-SVX045-EN.*
		Resistive (setpoint)	100Ω – 1MΩ	
		RTD	Balco™ (Ni-Fe), 1kΩ; 375, 385 (Pt), 1kΩ	
		Current	0–20 mA (linear)	
		Voltage	0–20 Vdc (linear)	
		Binary	Dry contact	
		Pulse Accumulator	Minimum 20 ms, opened or closed	
Universal Input/ Analog Output	Configure using any combination of analog or binary inputs/analog outputs			
Inputs	6	Thermistor	10kΩ – Type II, 10kΩ –Type III, 2252Ω – Type II, 20kΩ – Type IV, 100 kΩ	
		Resistive (setpoint)	100Ω –1MΩ	
		RTD	Balco™ (Ni-Fe), 1kΩ; 375, 385 (Pt), 1kΩ	
		Current	0–20 mA (linear)	
		Voltage	0–20 Vdc (linear)	
		Binary	Dry contact	
		Pulse accumulator	Minimum 20 ms, opened or closed	
Outputs		Current	0–20 mA @16 V	
		Voltage	0–10 Vdc @20 mA	
		Pulse	12.5ms to 1 second (12.5ms resolution), 1 second to 60 seconds (0.5 second resolution)	
Binary Output	4	Relay (form A) wet	24 VAC, 0.5A maximum	Ranges are given per contact.
Pressure Input	1	3-wire	0–5 in H_2O	Pressure input supplied with 5 Vdc. Designed for Kavlico™ pressure transducers.
Point total	**19**			

Controller dimensions





Additional Ordering Options

- Tracer TD7 Operator Display *(order number: X13651571010)*
- TD7 Sealed Ethernet cable (for wet environments) *(order number: X19070632020)*
- TD7 Display Portable Carry Case *(order number: X18210613010)*
- TD7 Mounting Bracket (flat surface, fixed position) *(order number: X05010511010)*
- Tracer XM30 expansion module (*order number: X13651537010)*
- Tracer XM32 expansion module (*order number: X13651563010*)
- Tracer XM70 expansion module (*order number: X13651568010)*
- Tracer BACnet Term (2 pack) *(order number X1365152401)*
- Tracer Large enclosure 120 VAC with display capable door (*order number: X13651552010)*
- Tracer Large enclosure 230 VAC with display capable door (*order number: X13651554010)*
- Tracer Medium enclosure 120 VAC (*order number: X13651559010*)
- Tracer Medium enclosure 230 VAC *(order number: X13651560010)*
- Tracer Small 10" DIN Rail enclosure *(order number: X19091354010)*
- Power Supply 24VAC to 1.4A 24 VDC for XM modules exceeding UC600 power budget *(order number: X1365153801)*
- IMC Harness *(order number: S3090059462)*

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