Product and Submittal Data

Trane Comfort Controls

Models:

TCONT24P1S52DA
TCONT624AS42DA
TCONT824AS52DA
TCONT850AC52UA
TZONE950AC52ZB
TZON1050AC52ZA

May 2026

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Data Notes

This document supersedes and includes data from the documents listed below.

Literature Number	Title
22-1394-1B-EN	Product Data — Trane Comfort Controls — Model TZON1050AC52ZA

Product Specifications

TCONT24P1S52DA

Table 1. Model TCONT24P1S52DA

Specification	Description
Dimensions	3.434" w x 5.714" h x 0.872" d
Touchscreen Display	2.163" w x 3.801" h (4.360 diagonal)
Configurations	Heat Pump, Heat/Cool, Dual Fuel, Heat Only, Cooling Only
Maximum Number of Stages	5 Stages Heat, 2 Stages Cooling
Storage/Operating Temperature	-40°F to 175°F, 0% to 90% RH non-condensing
Input Power	24 VAC
Power Consumption	3.6W average typical, 4.32W peak typical (at 24VAC)
Wire Usage	18 AWG
System Modes	Auto, Heating, Cooling, Off, Emergency Heat
Fan Modes	Auto, On, Circulate
Auxilliary Heat Lockout	25°F to 70°F, 1F resolution
Compressor Heat Lockout	5°F to 70°F, 5F resolution
Cooling Setpoint Temperature Range	60°F to 99°F, 1F resolution
Heating Setpoint Temperature Range	55°F to 90°F, 1F resolution
Indoor Temperature Display Range	32˚F to 99˚F (with 0˚F indoor temperature offset)
Outdoor Temperature Display Range	-35°F to 140°F (with 0˚F indoor temperature offset)
Indoor Humidity Display Range	0% to 100%, 1% resolution
Minimum Cycle Off Time Display	Compressor: 5 minutes

Features

- Wi-Fi: 2.4 Ghz and 5 Ghz dual-band, Wi-Fi 6 compatible
- Bluetooth capable for optional full commissioning with Technician App
- Control from a smartphone, tablet, or computer; diagnostics ready
- Geo Fencing
- Compatible with most conventional 24 volt systems
- Cooling, heating, heat pump and dual fuel
- 7 Day programmable with up to 4 schedules per day
- Three day weather forecast
- Enhanced dehumidification (BK terminal)
- Indoor relative humidity display
- 1 auxiliary dry contact for control of: a whole house humidifier, dehumidifier, or ventilation system
- Push terminals; Integrated water level
- Screen access restrictions
- Test modes and alert diagnostics
- Over-the-air software upgrades
- Color: Black
- Limited Warranty: 3 year Base/5 year Registered

TCONT624AS42DA

Table 2. Model TCONT624AS42DA, name: XL624

Specification	Description
Dimensions	5.9" w x 3.48" h x .94" d
Touchscreen Display	3.8" w x 2.3" h (4.3" diagonal)
Configurations	Heat Pump, Heat/Cool, Dual Fuel, Heat Only, Cooling Only
Maximum Number of Stages	4 Stages Heat, 2 Stages Cooling
Storage/Operating Temperature	-40°F to 175°F, 5% to 95% RH non-condensing
Input Power	24 VAC
Power Consumption	1.9 Watts Standby
Wire Usage	18 AWG
System Modes	Auto, Heating, Cooling, Off, Emergency Heat
Fan Modes	Auto, On, Circulate
Auxilliary Heat Lockout	32°F to 70°F
Compressor Heat Lockout	5°F to 70°F
Cooling Setpoint Temperature Range	60°F to 99°F, 1°F resolution
Heating Setpoint Temperature Range	55°F to 90°F, 1°F resolution
Indoor Temperature Display Range	20°F to 119°F
Outdoor Temperature Display Range	-31°F to 119°F
Indoor Humidity Display Range	0% to 99%, 1% resolution
Minimum Cycle Off Time Display	Compressor: 5 minutes, Indoor Heat: 1 minute

Features

- Z-wave connectivity
- Nexia™ smart home system compatible
- Control from a smartphone, tablet, or computer
- Geo Fencing
- 4.3–inch diagonal black and white touchscreen
- 7 Day programmable with up to 4 schedules per day
- Humidity sensor and RH display
- Remote temperature sensor connections (1 indoor/1 outdoor)
- Auxiliary & compressor heat lockouts
- Auxiliary dry contact – control whole house humidifier or dehumidifier or ventilation system
- Enhanced dehumidification (cooling)
- Adjustable variable speed fan settings (PWM)
- Energy Savings Mode (ESM)
- Screen lock and guest lock
- Service test modes
- Upgradeable software
- Silver/Gray color
- Limited Warranty: 1 year Base/5 year Registered

Application

HVAC system compatatibility:

- Up to 4 Stages Heat/2Stages Cool
- Conventional gas/electric, heat pump, dual fuel systems and standard boilers (baseboard and radiators)
- Remote Indoor Sensor (optional): ZZSENSAL0400AA
- Remote Outdoor Sensor (optional): BAYSEN01ATEMPA
- Wall Cover Plate BAYCOVR800A

TCONT824AS52DA

Table 3. Model TCONT824AS52DA, name: XL824

Specification	Description
Dimensions	5.43" w x 3.39" h x 1.30" d
Touchscreen Display	4.15" w x 2.65" h (4.3" diagonal)
Configurations	Heat Pump, Heat/Cool, Dual Fuel, Heat Only, Cooling Only
Maximum Number of Stages	5 Stages Heat, 2 Stages Cooling
Storage/Operating Temperature	-40°F to 175°F, 5% to 95% RH non-condensing
Input Power	24 VAC
Power Consumption	3VA typical, 7VA max
Wire Usage	18 AWG
System Modes	Auto, Heating, Cooling, Off, Emergency Heat
Fan Modes	Auto, On, Circulate
Auxilliary Heat Lockout	32°F to 70°F
Compressor Heat Lockout	5°F to 70°F
Cooling Setpoint Temperature Range	60°F to 99°F, 1°F resolution
Heating Setpoint Temperature Range	55°F to 90°F, 1°F resolution
Indoor Temperature Display Range	-40°F to 122°F
Outdoor Temperature Display Range	-40°F to 140°F
Indoor Humidity Display Range	0% to 100%, 1% resolution
Minimum Cycle Off Time Display	Compressor: 5 minutes, Indoor Heat: 1 minute

Features

- Wi-Fi (802.11 b/g/n) or Ethernet connection
- Control from a smartphone, tablet, or computer
- Nexia™ Z-Wave Bridge Built Inside (Home Automation Hub)
- Connect over 200 Z-Wave devices
- Geo Fencing
- Nexia™ Diagnostics Ready
- Compatible with conventional 24 Volt systems
- Cooling, heating, heat pump, and dual fuel
- 7 Day programmable with up to six schedules per day
- Five day weather forecast, weather radar, and weather alerts

- Indoor relative humidity display and enhanced dehumidification
- 2 auxiliary dry contacts for control of: a whole house humidifier, dehumidifier, or ventilation system
- Test modes and alert diagnostics
- Upgradable software
- Silver/Gray color
- Limited Warranty: 5 year Base/10 year Registered

Application

HVAC system compatatibility:

- Conventional gas/electric, heat pump, and dual fuel systems
- Conventional boiler systems (forced air only)

Conventional HVAC systems:

- 2 Heat / 2 Cool
- Heat Pump systems: Up to 5 stages heat / 2 stages cool (2 compressor heat - 3 auxiliary heat / 2 cooling)
- Heat Pump switchover valve: Selectable "with cool or with heat"
- Remote Indoor Sensor (optional): ZZSENSAL0400AA
- Remote Outdoor Sensor (optional): BAYSEN01ATEMPA
- PWM Circuit (BK terminal): controls indoor unit variable speed blowers

TCONT850AC52UA

Table 4. Model TCONT850AC52UA, name: XL850

Specification	Description
Dimensions	5.43" w x 3.39" h x 1.30" d
Touchscreen Display	4.15" w x 2.65" h (4.3" diagonal)
Communications	ComfortLink™ II 3-Wire Connection
Configurations	Heat Pump, Heat/Cool, Dual Fuel, Heat Only, Cooling Only
Maximum Number of Stages	5 Stages Heat, 2 Stages Cooling
Storage/Operating Temperature	-40°F to 175°F, 5% to 95% RH non-condensing
Input Power	24 VAC
Power Consumption	3VA typical, 7VA max
Wire Usage	18 AWG
System Modes	Auto, Heating, Cooling, Off, Emergency Heat
Fan Modes	Auto, On, Circulate
Auxilliary Heat Lockout	32°F to 70°F
Compressor Heat Lockout	5°F to 70°F
Cooling Setpoint Temperature Range	60°F to 99°F, 1°F resolution
Heating Setpoint Temperature Range	55°F to 90°F, 1°F resolution
Indoor Temperature Display Range	-40°F to 122°F
Outdoor Temperature Display Range	-40°F to 140°F
Indoor Humidity Display Range	0% to 100%, 1% resolution
Minimum Cycle Off Time Display	Compressor: 5 minutes, Indoor Heat: 1 minute

Features

- Wi-Fi (802.11 b/g/n) or Ethernet connection
- Control from a smartphone, tablet, or computer
- Nexia™ Z-Wave Bridge Built Inside
- Connect over 200 Z-Wave devices
- Geo Fencing
- Nexia™ Diagnostics Ready
- Compatible with ComfortLink™ II communicating systems
- Compatible with conventional 24 volt systems when used with relay panel BAY24VRPAC52**
- 7 Day programmable with up to six schedules per day
- Five day weather forecast, weather radar, and weather alerts
- Indoor relative humidity display and enhanced dehumidification
- Test modes and alert diagnostics
- Upgradable software
- Silver/Gray color
- Wall Cover Plate BAYCOVR800A
- Limited Warranty: 5 year Base/10 year Registered

Application

HVAC system compatatibility:

- ComfortLink™ II communicating systems (variable speed and two stage)
- Conventional gas/electric, heat pump, dual fuel systems, or boilers (forced air only) requires relay panel BAY24VRPAC52**. Relay panel controls up to 5 stages heat, 2 stages cool, with remote indoor and outdoor temperature sensor connections, humidifier, whole-house dehumidifier and ventilation system.

TZONE950AC52ZB

Table 5. Model TZONE950AC52ZB, name: XL950

Specification	Description
Dimensions	7.3" w x 4.3" h x 1.20" d
Touchscreen Display	6.1" w x 3.6" h (7" diagonal)
Communications	ComfortLink™ II 3-Wire Connection
Configurations	Heat Pump, Heat/Cool, Dual Fuel, Heat Only, Cooling Only
Maximum Number of Stages	5 Stages Heat, 2 Stages Cooling
Storage/Operating Temperature	-40°F to 175°F, 5% to 95% RH non-condensing
Input Power	24 VAC
Power Consumption	5VA typical, 7VA max
Wire Usage	18 AWG
System Modes	Auto, Heating, Cooling, Off, Emergency Heat
Fan Modes	Auto, On, Circulate
Auxilliary Heat Lockout	32°F to 70°F
Compressor Heat Lockout	5°F to 70°F
Cooling Setpoint Temperature Range	60°F to 99°F, 1°F resolution

Table 5. Model TZONE950AC52ZB, name: XL950 (continued)

Specification	Description
Heating Setpoint Temperature Range	55°F to 90°F, 1°F resolution
Indoor Temperature Display Range	20°F to 119°F
Outdoor Temperature Display Range	-31°F to 119°F
Indoor Humidity Display Range	0% to 99%, 1% resolution
Minimum Cycle Off Time Display	Compressor: 5 minutes, Indoor Heat: 1 minute

Features

- Wi-Fi (802.11 b/g/n)
- Control from a smartphone, tablet, or computer
- Compatible with ComfortLink™ II communicating systems
- Compatible with conventional 24 volt HVAC systems (requires BAY24VRPAC52**)
- Nexia™ compatible and Geo Fencing
- Nexia™ Diagnostics Ready
- 7 Day programmable with up to six schedules per day
- Five day weather forecast, weather radar, and weather alerts
- Indoor relative humidity display
- Test modes and diagnostics screens
- Upgradable software
- Silver/Gray color
- Control up to 3 accessory devices with relay panel model BAY24VRPAC52**: whole house humidifier, dehumidifier or ventilation system
- Limited Warranty: 5 year Base/10 year Registered

Application

HVAC system compatatibility:

- ComfortLink™ II communicating systems (variable speed and two stage)
- Conventional gas/electric, heat pump, dual fuel systems, or boilers (forced air only) requires relay panel BAY24VRPAC52**. Relay panel controls up to 5 stages heat, 2 stages cool, with remote indoor and outdoor temperature sensor connections, humidifier, whole-house dehumidifier and ventilation system.

TZON1050AC52ZA

Table 6. Model TZON1050AC52ZA, name: XL1050

Specification	Description
Dimensions	7.3" w x 4.3" h x 1.20" d
Touchscreen Display	6.1" w x 3.3" h (7" diagonal)
Communications	ComfortLink™ II 3-Wire Connection
Configurations	Heat Pump, Heat/Cool, Dual Fuel, Heat Only, Cooling Only
Maximum Number of Stages	5 Stages Heat, 2 Stages Cooling
Storage/Operating Temperature	-40°F to 175°F, 5% to 95% RH non-condensing
Input Power	24 VAC from HVAC System (Range: 18-30 VAC)

Table 6. Model TZON1050AC52ZA, name: XL1050 (continued)

Specification	Description
Power Consumption	3W typical, 4.7W max
Wire Usage	18 AWG NEC approved control wiring
System Modes	Auto, Heating, Cooling, Off, Emergency Heat
Fan Modes	Auto, On, Circulate
Auxilliary Heat Lockout	32°F to 70°F
Compressor Heat Lockout	5°F to 70°F
Cooling Setpoint Temperature Range	60°F to 99°F, 1°F resolution
Heating Setpoint Temperature Range	55°F to 90°F, 1°F resolution
Indoor Temperature Display Range	20°F to 119°F
Outdoor Temperature Display Range	-40°F to 135°F
Indoor Humidity Display Range	0% to 99%, 1% resolution
Minimum Cycle Off Time Display	Compressor: 5 minutes, Indoor Heat: 1 minute

Features

- Wi-Fi (802.11 b/g/n) or Ethernet connection
- Control from a smartphone, tablet, or computer
- Compatible with ComfortLink™ II communicating systems
- Compatible with conventional 24 volt HVAC systems (requires BAY24VRPAC52**)
- Connect over 200 Z-Wave devices
- Geo Fencing
- Nexia™ Z-Wave Bridge Inside
- Nexia™ Diagnostics Ready
- Zoning ready - requires zone panel(s), zone controls and dampers purchased separately
- 7 Day programmable with up to six schedules per day
- Five day weather forecast, weather radar, and weather alerts
- Indoor relative humidity display and enhanced dehumidification
- Test modes and alert diagnostics
- Upgradable software
- Designer silver metallic color
- Limited Warranty: 5 year Base/10 year Registered

Application

HVAC system compatatibility:

- ComfortLink™ II communicating systems (variable speed and two stage)
- Conventional gas/electric, heat pump, dual fuel systems, or boilers (forced air only) requires relay panel BAY24VRPAC52**. Relay panel controls up to 5 stages heat, 2 stages cool, with remote indoor and outdoor temperature sensor connections, humidifier, whole-house dehumidifier and ventilation system.

Dimensional Data

Figure 1. TCONT24P1S52DA drawing

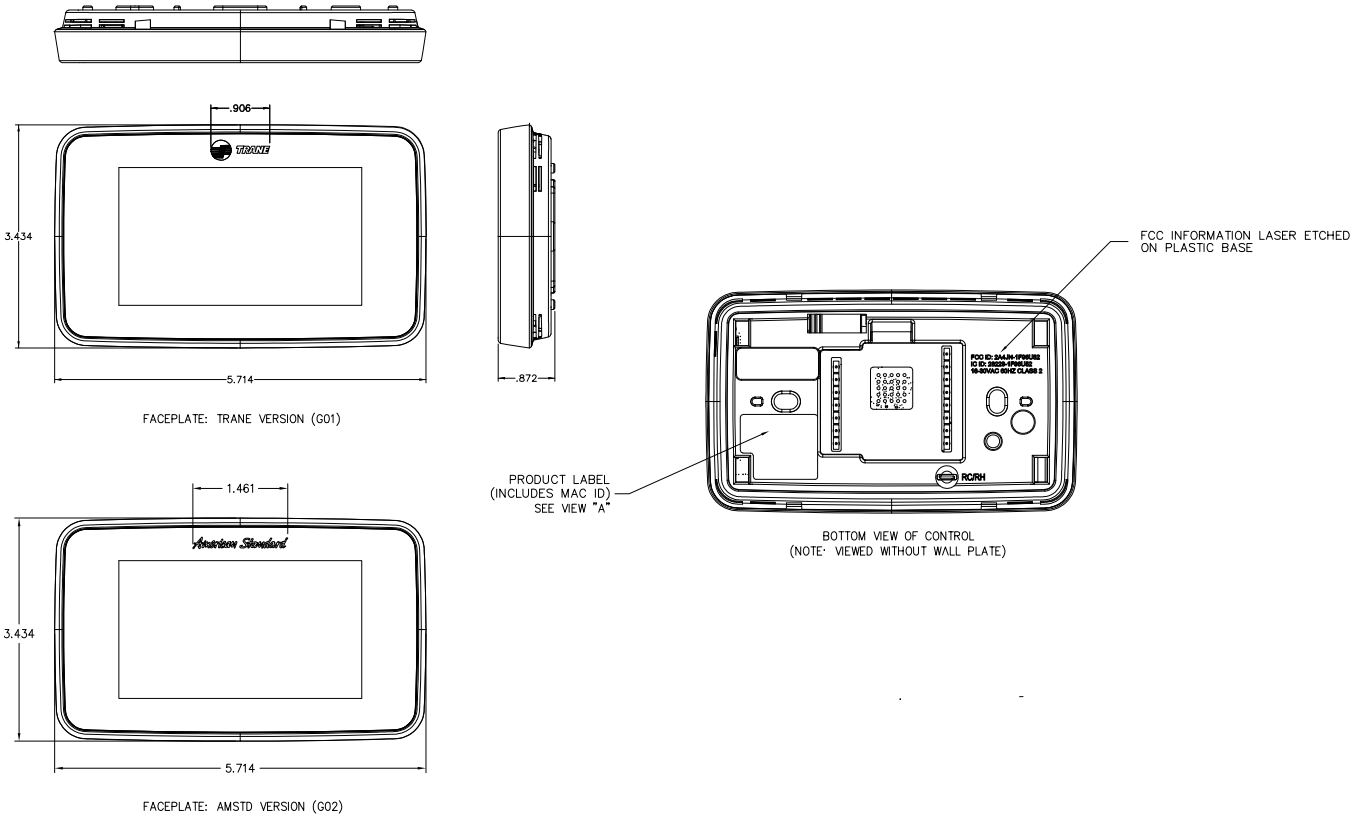
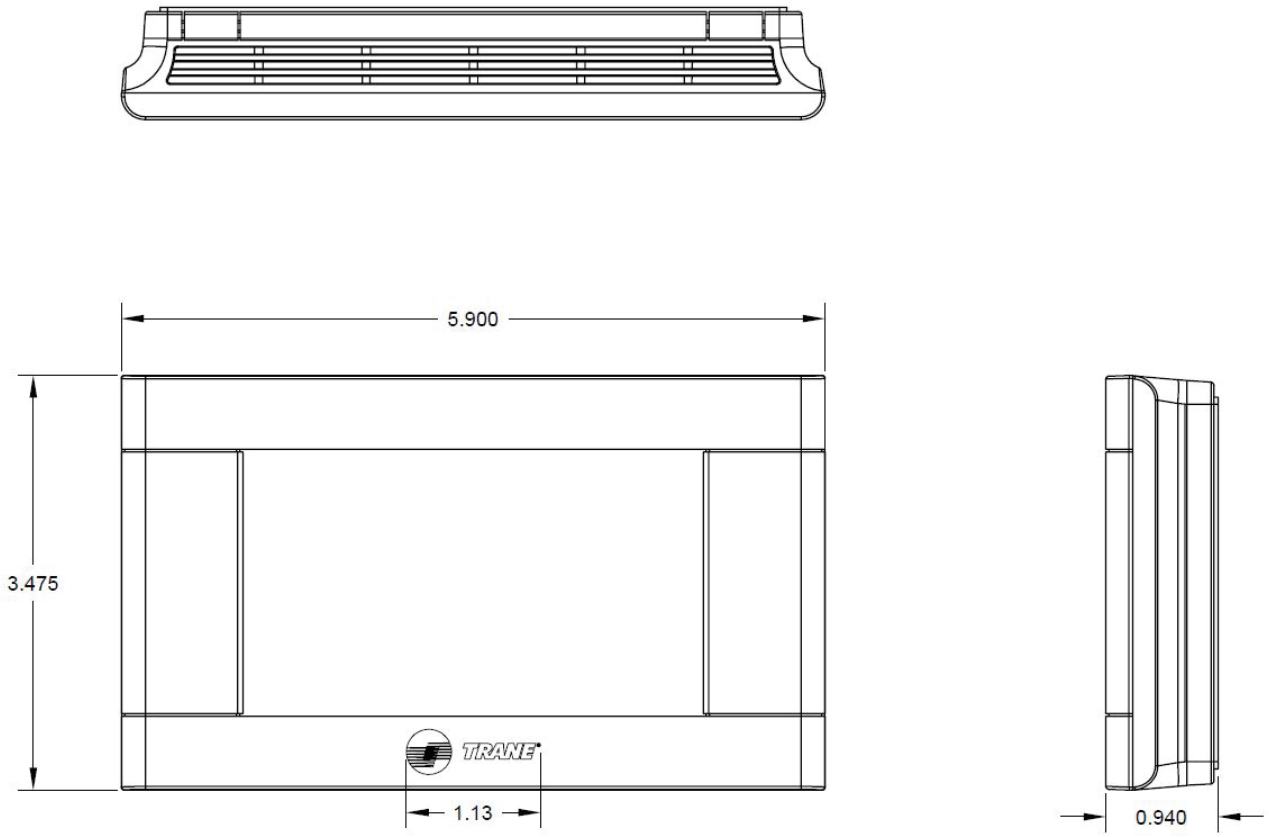


Figure 2. TCONT624AS42DA drawing



Dimensional Data

Figure 3. TCONT824AS52DA drawing

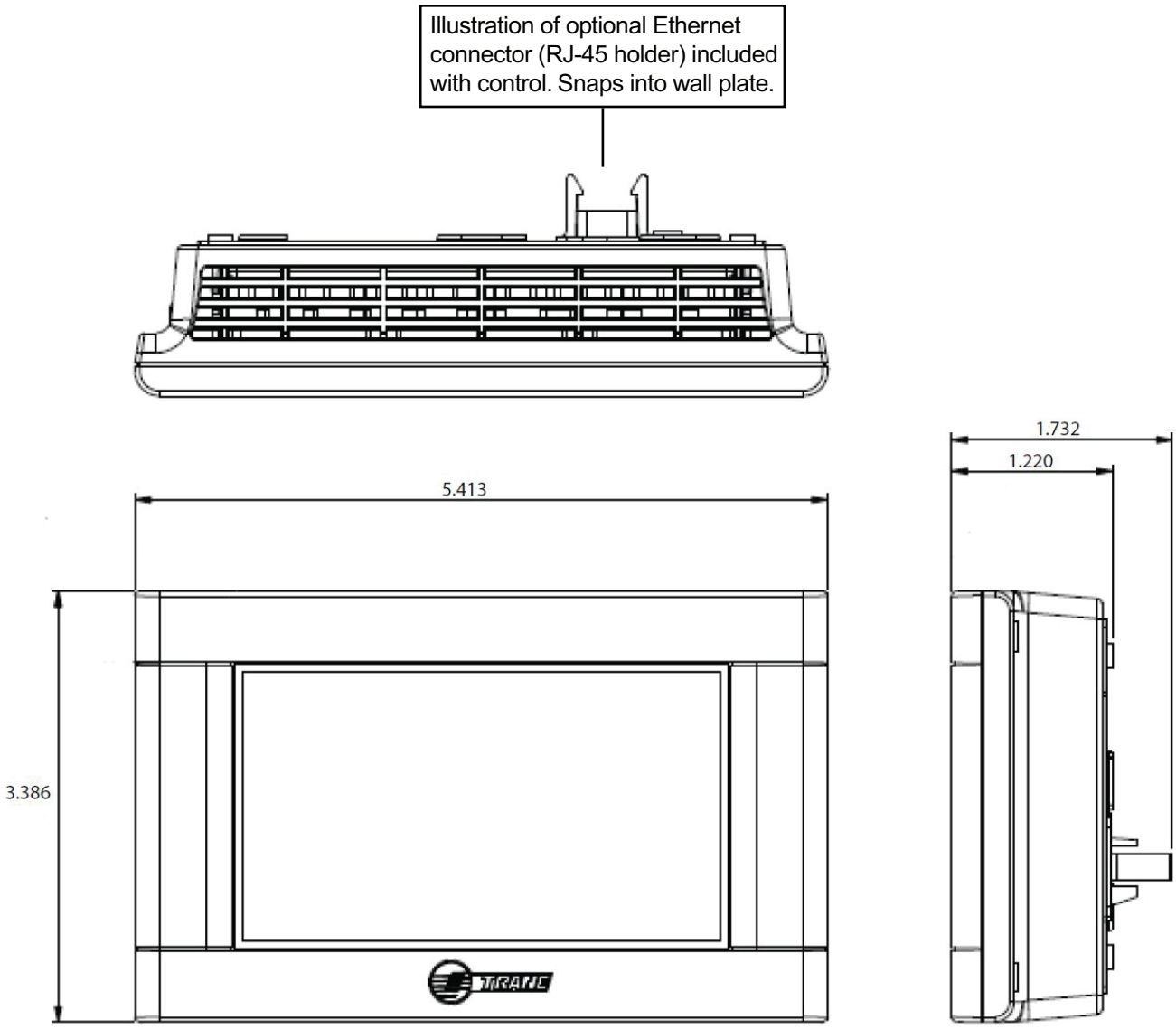
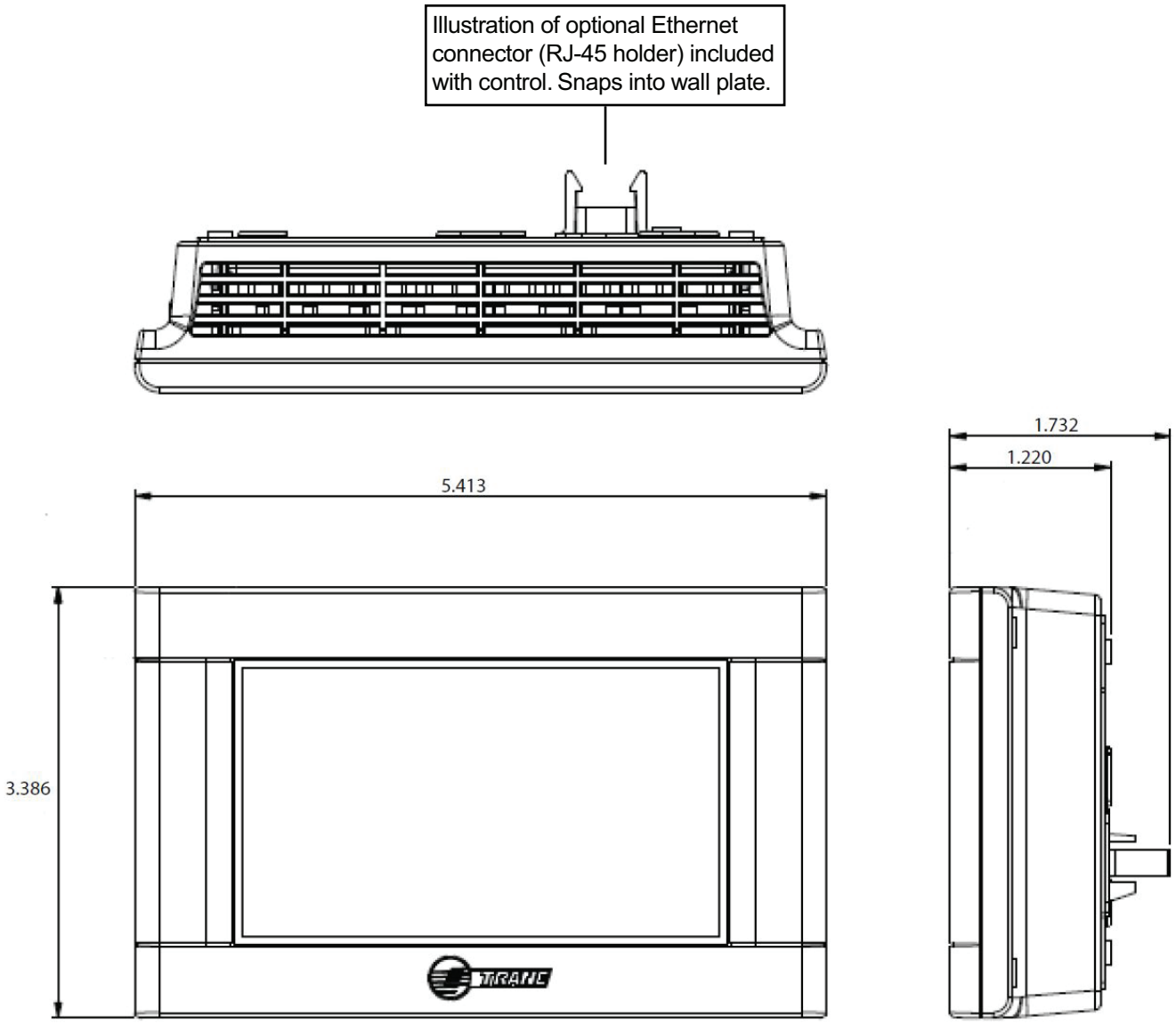


Figure 4. TCONT850AC52UA drawing



Dimensional Data

Figure 5. TZONE950AC52ZB drawing

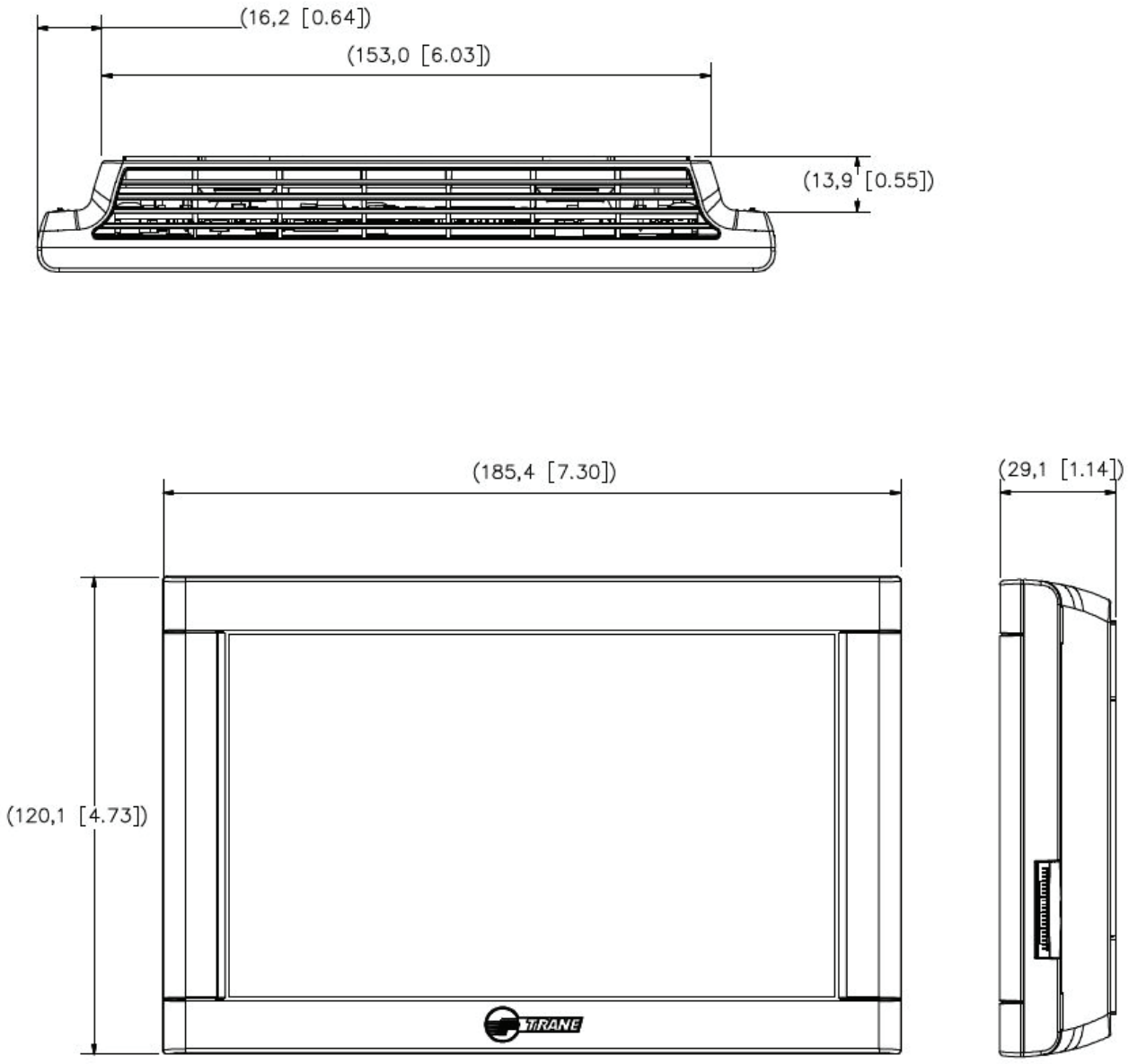
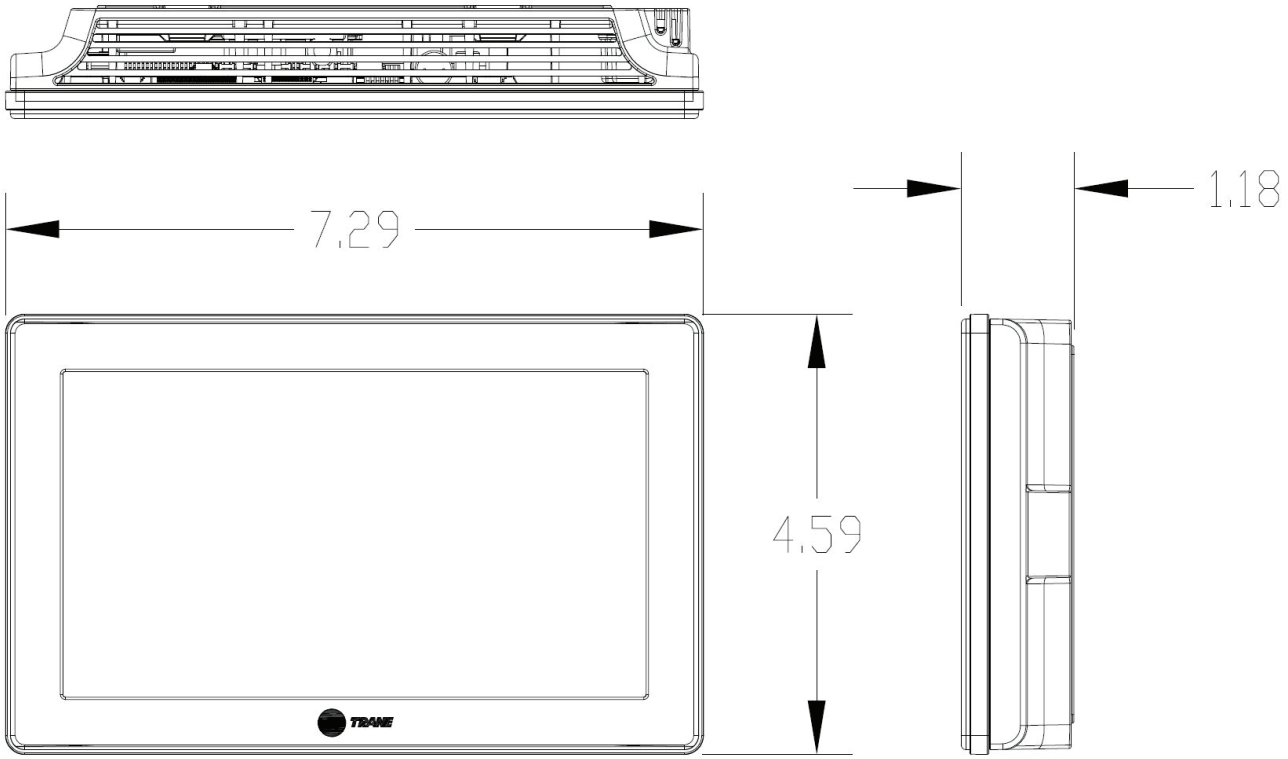


Figure 6. TZON1050AC52ZA drawing



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