

INSTALLATION INSTRUCTIONS

BEFORE INSTALLATION

The Excel 10 W7763C Flex Sys Controller is equipped with integral setpoint adjustment, a temperature sensor, and a bypass push-button.

IMPORTANT

It is recommended that devices be kept at room temperature for at least 24 hours before applying power to allow any condensation resulting from low shipping/storage temperatures to evaporate.

INSTALLATION

The W7763 Flex Sys Controller can be mounted on a panel or wall or onto a standard 60-mm wall outlet box using No. 6 (3.5-mm) screws. See Fig. 1 for outside dimensions and Fig. 2 for sub-base mounting dimensions. See Fig. 6 for mounting on a 2"x4" horizontal electrical box with mounting adapter provided with the controller.

The controller can be mounted in any orientation desired; however, for thermal reasons, W7763C Controllers must not be mounted on a ceiling.

Wiring

All wiring must comply with applicable electrical codes and ordinances. Refer to job or manufacturers' drawings for details.

Power

Input power provided must be 24 Vac ($\pm 20\%$), 50 or 60 Hz. For US installation, power must come from an energy-limited Class II Power Source (transformers must not exceed 100 VA). More than one W7763C Flex Sys Controller can be powered by a single transformer.



CAUTION

Turn off power prior to connecting to or removing connections from any terminals to avoid electrical shock or equipment damage.

Use the heaviest gauge wire available, up to 14 AWG (2.5 mm^2) with a minimum of 18 AWG (1.0 mm^2) for all power wiring.

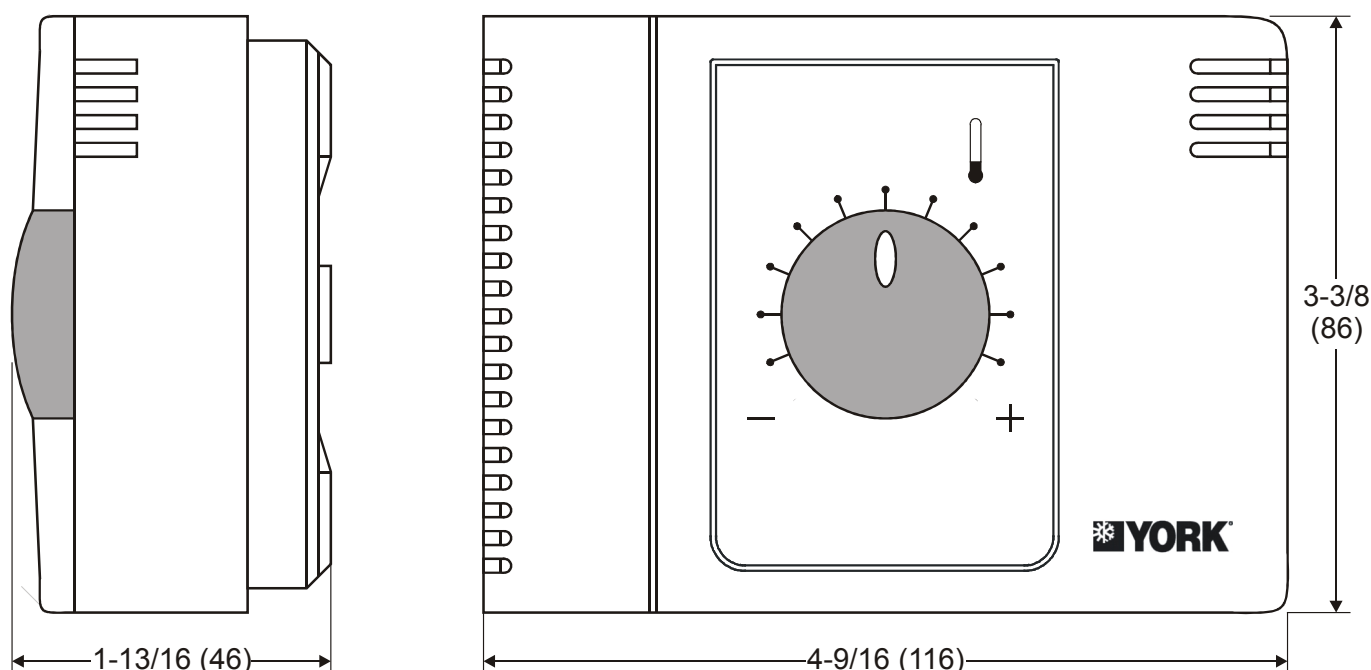


Fig. 1. Excel 10 Flex Sys Controller outside dimensions in inches (mm)

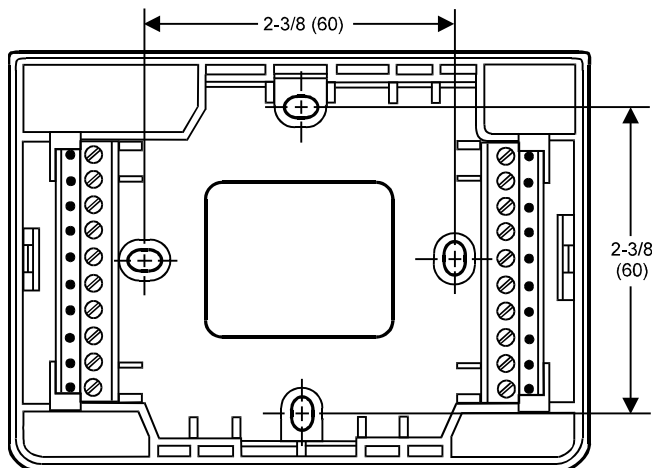


Fig. 2. Sub-base mounting dimensions

IMPORTANT (US only)

If the W7763 Controller is used on **UL 1995 Heating and Cooling Equipment** and the transformer primary power is more than 150 Vac, connect the transformer's secondary to earth ground. For these applications, only one Excel 10 controller can be powered by each transformer.

Communications

Wire the controller's LONWORKS® network using level IV 22 AWG (Belden part number 9D220150) or plenum-rated level IV 22 AWG (Belden part number 9H2201504) nonshielded, twisted pair, solid conductor wire. When possible, use Honeywell AK3781, AK3782, AK3791, or AK3792 cable (US part numbers). See *E-Bus (LONWORKS® network) Wiring Practices*, form number 74-2865, for more information including maximum lengths.

Pull the cable to each controller on the LONWORKS® network and connect to terminals 19 and 20.

The W7763 Flex Sys Controller utilizes a free topology transceiver (FTT10A) Link Power compatible LONWORKS® network that allows daisy-chain, loop, and star network configurations or any combination thereof. Depending upon the LONWORKS® network configuration used, one or two termination modules, part number 209541B, may be required. Different connections to the termination module are necessary, depending upon whether it is used in a singly- or doubly-terminated network configuration. See Excel 10 FTT/LPT 209541B Termination Module Installation Instructions, form 95-7554.

NOTES:

- The LONWORKS® network is insensitive to polarity, eliminating installation errors due to miswiring.
- Do not bundle output wires with sensor, digital input or communications bus wires. Maintain a minimum 3 in. (76 mm) separation between LONWORKS® network and Triac output and power supply wiring.
- During installations, try to avoid areas of high electromagnetic noise (EMI).
- The W7763C Flex Sys Controller has a 3.5-mm LONWORKS® network jack for easy network access.
- For more information see *E-Bus (LONWORKS® network) Wiring Guidelines*, form number 74-2865.

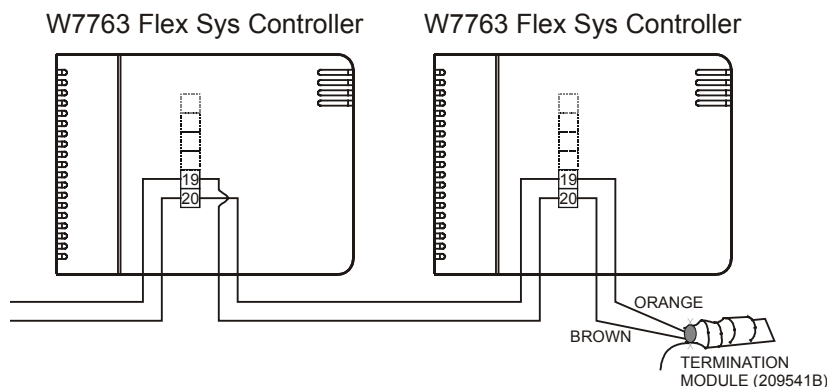


Fig. 3. Termination module connection (daisy-chain network configuration)

Wiring Details

Connections to the W7763C Flex Sys controller are made at an internal terminal block accessible beneath the front cover. No tools are required to remove the front cover. Simply pull away from the sub-base as shown in Fig. 4.

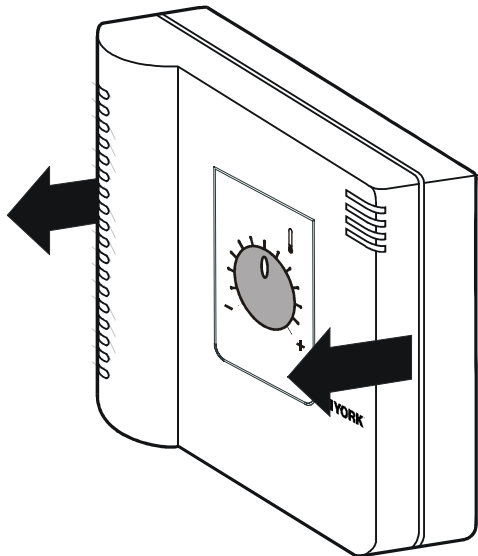


Fig. 4. Terminal cover removal

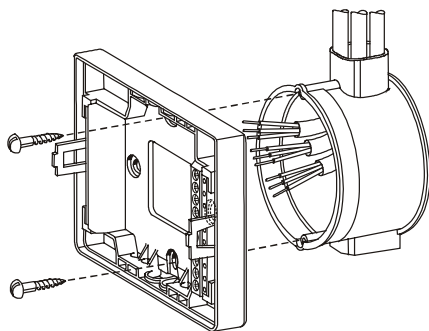


Fig. 5. Mounting on wall outlet box

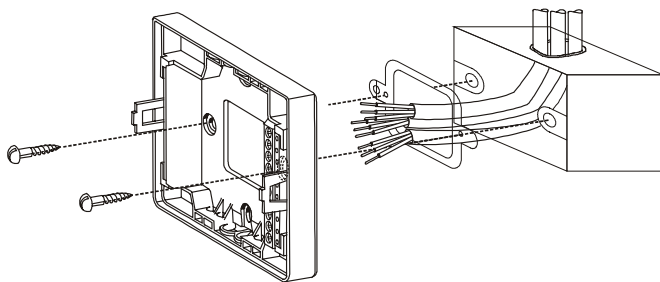


Fig. 6. Mounting with adapter on 2"x4" electrical box

Use a minimum wire size of 20 AWG (0.5 mm²) for all input / output connections. The maximum length of all input / output cables and wall module interface cables is 65 ft (20 m). Maintain 3 in. (76 mm) minimum spacing between signal lines 1-10 and Triac output and power supply wiring.

Fig. 9 illustrates the terminal assignments of the controllers. Table 1 lists Triac output assignments for various actuator types. Refer to job drawings for specific wiring diagrams.

IMPORTANT

Screw-type terminal blocks are designed to accept no more than one 14 AWG (2.5 mm²) conductor. Multiple wires that are 14 AWG (2.5 mm²) can be connected with a wire nut. Include a pigtail with this wire group and attach the pigtail to the individual terminal block.

Wire to the terminal blocks as follows:

1. Strip 1/2 in. (13 mm) insulation from the conductor.
2. Insert the wire in the required terminal location and tighten the screw to complete the termination. Insure that the wire entering the terminal block does not extend above the numbered face of the terminal block to avoid contact between the wires and the printed circuit board on the underside of the front cover (see Fig. 7)

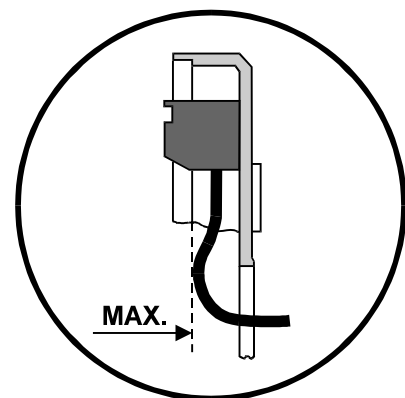
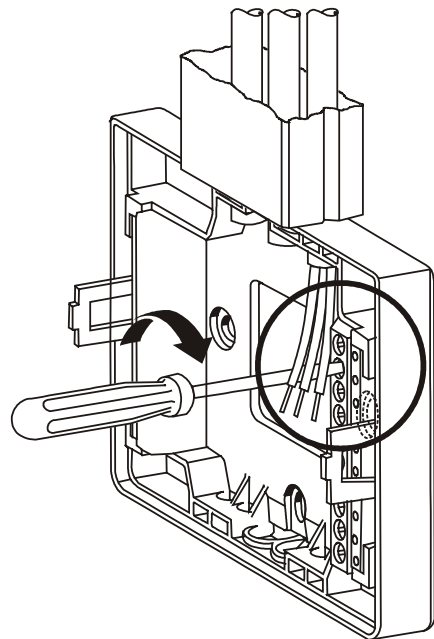


Fig. 7. Terminal block connections

IMPORTANT

When two or more wires are to be attached to the same terminal, be sure to twist them together. Deviations from this rule can result in improper electrical contact. See Fig. 8. Local wiring codes may take precedence over this recommendation.

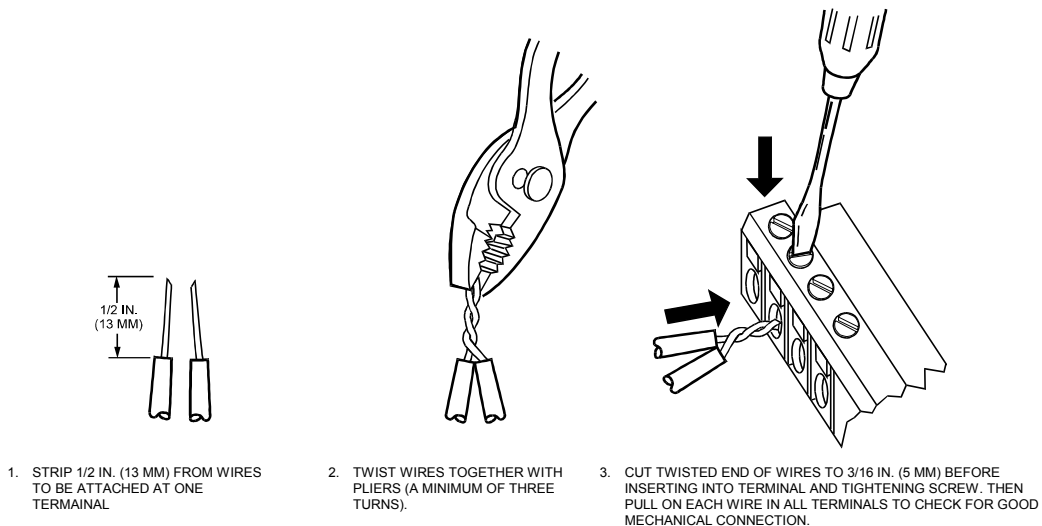


Fig. 8. Attaching two or more wires at terminal blocks

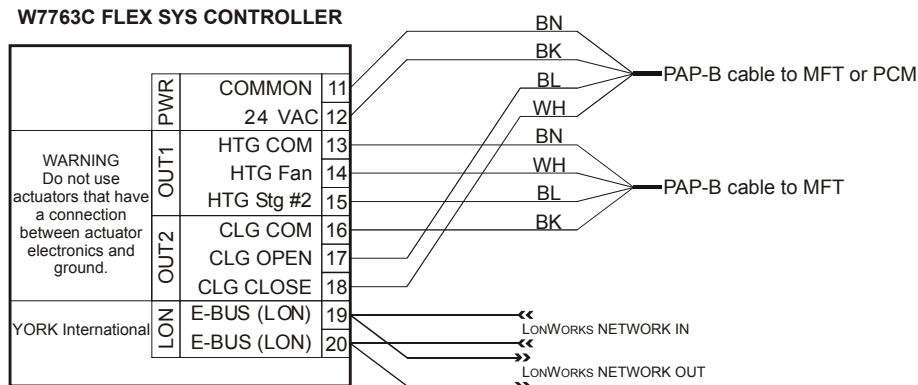


Fig. 9. Flex Sys Controller terminal assignments

Table 1. Output assignments for various actuator types

Output type	Out 1 Terminal			Out 2 Terminal		
	13	14	15	16	17	18
Floating	24 Vac	open	close	24 Vac	open	close
1-stage	24 Vac	on/off	—	24 Vac	on/off	—
2-stage	24 Vac	stage 1	stage 2	24 Vac	stage 1	stage 2
3-stage	24 Vac	stage 1	stage 2	24 Vac	stage 1	stage 2
		stage 3			stage 3	
PWM	24 Vac	PWM	—	24 Vac	PWM	—
Thermal	24 Vac	on/off	—	24 Vac	on/off	—

Approval Standards

CE, EN50081-1, EN50082-1, meets FCC part 15 class B requirements, meets UL standard 916.



Control Products

Honeywell Inc.
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 155 Gordon Baker Road
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Manufactured
 according to

DIN EN ISO
9001/14001