

CERTIFICATION

The IO-210 Series heater is approved for outdoor and indoor use to the following standards:

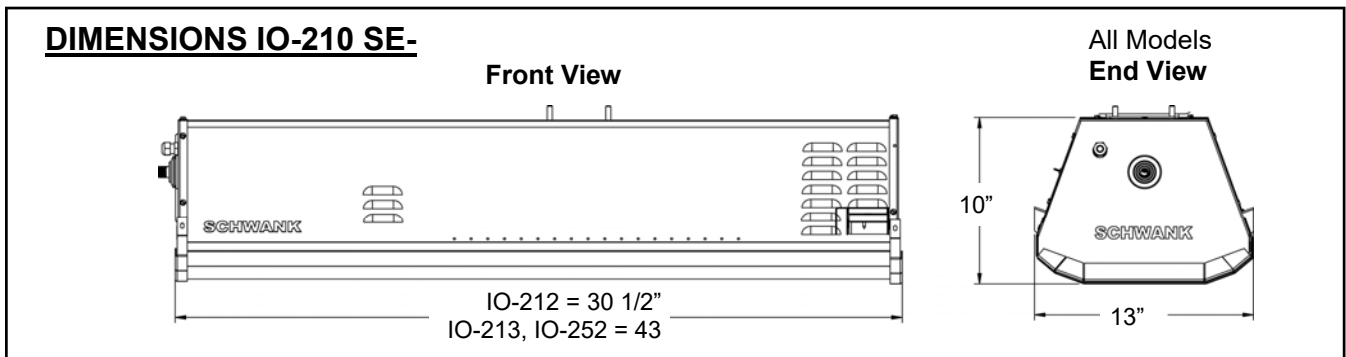
- Outdoor: ANSI Z83.26 / CSA 2.37 *Gas-Fired Outdoor Infrared Patio Heaters*
- Indoor: ANSI Z83.19 / CSA 2.35 *Gas-Fired High Intensity Infrared Heaters*

Outdoor Definition per ANSI Z83.26 / CSA 2.37 Approval Standard.

An appliance approved for “outdoor use” may be installed with shelter no more inclusive than:

- With walls on all sides, but with no overhead cover, (overhead permanently open) or
- Within a partial enclosure which includes an overhead cover and no more than two side walls. These side walls may be parallel, as in a breezeway, or at right angle to each other. The open sides must be permanently open or
- Within a partial enclosure which includes an overhead cover and three side walls, as long as 30 percent or more of the horizontal periphery of the enclosure is permanently open.

If “outdoor” conditions are not met, Models IO-212 & IO-213 are approved for “indoor use” and ventilation requirements of local codes apply.

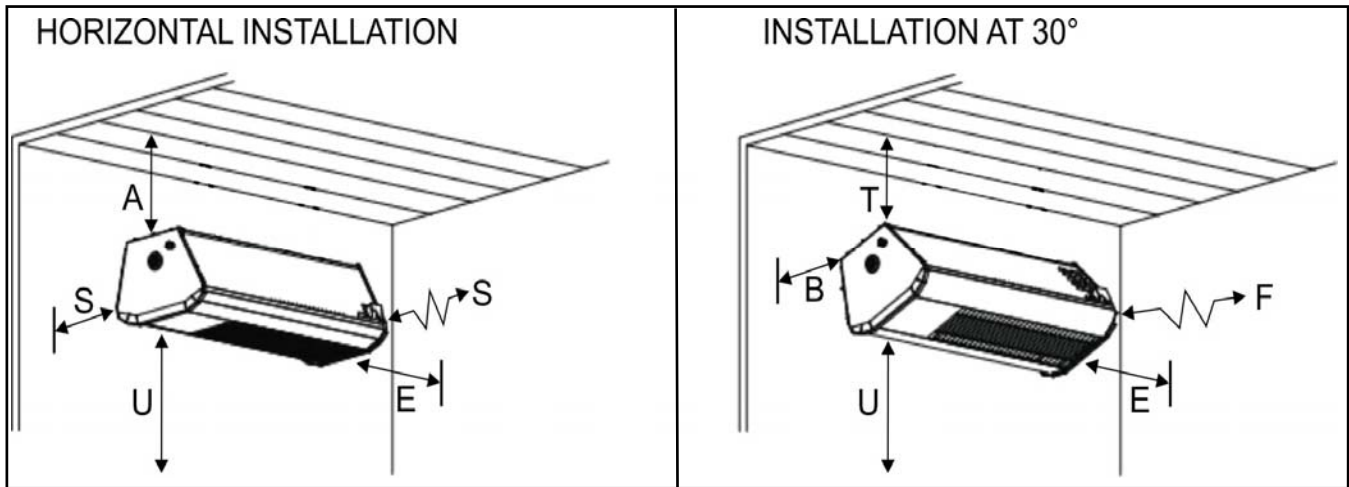


QTY	MODEL NO.	INPUT CAPACITY BTUH	GAS	1/2" GAS INLET PIPE SIZE		MANIFOLD PRESSURE	ELECTRICAL	WEIGHT (LBS.)
				MINIMUM GAS LINE PRESSURE	MAXIMUM GAS LINE PRESSURE			
	IO-212-N	23,000	NAT	6" W.C.	14" W.C.	5" W.C.	VOLTAGE 24VAC	32
	IO-212-L	23,000	LP	11" W.C.	14" W.C.	10" W.C.		32
	IO-213-N	35,000	NAT	6" W.C.	14" W.C.	5" W.C.	CURRENT AMPS 40VA*	44
	IO-213-L	35,000	LP	11" W.C.	14" W.C.	10" W.C.		44
	IO-252-N	50,000/ 35,000	NAT ONLY	6" W.C.	14" W.C.	5" W.C.		49

*For a multiple heater installation, the transformer is sized: 40 VA for the first heater + 20 VA for each additional heater. If total VA is between transformer sizes, select the next higher VA rating.

MINIMUM CLEARANCES TO COMBUSTIBLES

Note that clearances to combustible material are different for indoor application than for outdoor. (See Table below)



QTY	Application	MODEL NO	Horizontal		30° Angle			Under	Ends
			A	S	T	B	F	U	E
	OUTDOOR	IO-212	5.5"	7"	9.5"	1"	9.5"	48"	3"
	OUTDOOR	IO-213	7.5"	9"	9.5"	1.5"	21"	48"	5"
	OUTDOOR	IO-252	12"	28"	16"	10"	36"	60"	21"
	INDOOR	IO-212	8"	10"	12.5"	2.5"	14"	60"	4"
	INDOOR	IO-213	10.5"	14.5"	14.5"	2.5"	26"	60"	6"

SUGGESTED MOUNTING HEIGHT FOR COMFORT:

- IO-212: 8 ft to 10 ft
- IO-213: 8 ft-6 in to 11 ft
- IO-252: 9 ft to 12 ft

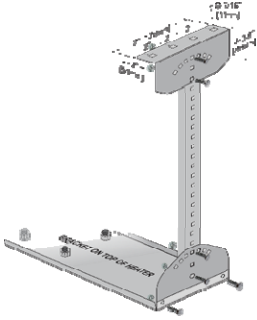
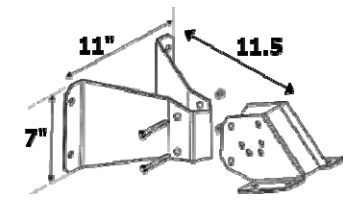

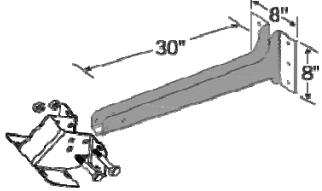
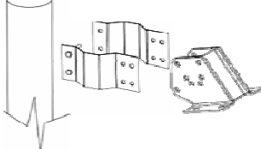
Do not mount less than 8 ft [2438 mm] above floor.

Do not store or place anything directly under heater.

Notes:

1. Ensure mounting height in any location is sufficient to prevent patrons from coming in contact with heater, and clearances to combustibles are maintained.
2. The clearance to combustible material represents the minimum distance that must be maintained between the outer heater surface and a nearby surface. The stated clearance to combustibles represents a surface temperature of: **Indoor** = 90F° (50C°) above room temperature; **Outdoor** = 117F° (65C°) above ambient temperature.
3. It is the installer's responsibility to ensure that building materials with a low heat tolerance which may degrade at lower temperatures are protected to prevent degradation. Examples of low heat tolerance materials include awnings, vinyl siding, fabrics, some plastics, filmy materials, etc.

IO-210 SERIES: OPTIONS

OPTION	QTY	DESCRIPTION
CONTROL OPTIONS		PATIO CONTROL PANEL 24 VOLT
		REMOTE CONTROL
		2-STAGE ILLUMINATED SWITCH GANG (IO-252 Only)
MOUNTING OPTIONS Heater must be rigidly mounted - not chain		 <p>Fits All Models JP-2100-CB-K Ceiling Mount Kit Stainless Steel construction <i>(one end shown)</i></p>
		<p>Fits All Models - 30° Mount JP-2100-MB Black Painted Steel JP-2100-MB-SS Stainless Steel</p>
		<p>IO-212 & IO-213 Models Only - 30° Mount JP-2300-MB Black Painted Steel JP-2300-MB-SS Stainless Steel</p>
		<p>Fits All Models - 30° Mount at 30 inches from wall JP-2300-MK Black Painted Steel JP-2300-MK-SS Stainless Steel</p>
		<p>Fits All Models - 30° Mount from 4" dia. pole JP-2300-PK Black Painted Steel JP-2300-PK-SS Stainless Steel</p>

IO-210 SERIES: COMPONENT DESCRIPTION

IO-212, IO-213 COMBINATION GAS VALVE		NATURAL GAS 5" W.C. MANIFOLD PRESSURE; 24 VAC PROPANE 10" W.C. MANIFOLD PRESSURE; 24 VAC
IO-252 COMBINATION GAS VALVE		TWO-STAGE NATURAL GAS ONLY: 5" / 3.0" W.C. MANIFOLD PRESSURE; 24 VAC
IGNITION		DIRECT SPARK MODULE: 3 TRIAL IGNITION SEQUENCE; AUTOMATIC SOFT LOCK-OUT WITH AUTO RESET AFTER 30 MINUTES FOR IGNITION RETRIAL
WIND SCREEN		MARINE GRADE 316 STAINLESS STEEL W/ BLACK EMISSIVE COATING
CABINET		MARINE GRADE 316 STAINLESS STEEL W/ BLACK EMISSIVE COATING
VENTURI TUBE		STEEL BUILT INTO BURNER HOUSING
BURNER		ONE ATMOSPHERIC BURNER COMPLETE WITH IGNITION / FLAME SENS- ING / MONITORING SYSTEM
CERAMIC TILE		EFFECT TILE 14/4 WITH INCREASED SURFACE INDENTATIONS AND HARD FINISHED EDGES
TILE RETAINERS		STAINLESS STEEL
COMBUSTION		TILE SURFACE TEMPERATURE: 1,760°F [960°C] "COLD STATE" COMBUSTION TRANSFERS HEAT INSTANTANEOUSLY TO TILE SURFACE AND MINIMIZES EMISSIONS: CO: 10 – 48 ppm, air free [11 – 50 mg/kWh] NOx: 9 – 14 ppm, air free [15 – 25 mg/kWh]