

# Explosion-Proof Panel Heater - XPA

The Norseman™ XPA Series explosion-proof panel heater is the latest innovation in the Norseman™ line of hazardous location heating products.

The Norseman™ XPA heater is available in 120V, 208V, and 240V, 50 Hz and 60 Hz configurations. The Norseman™ XPA heater is cCSA<sub>US</sub> certified for Class I, Divisions 1 & 2, Groups A, B, C & D and ATEX/IECEX/EAC certified for Ex d IIC or IIB, T2 (215°C), T3 or T4, Gb IP66. Sizes, wattages and applicable temperature codes are shown in Table 16, page 21.

## Applications

The Norseman™ XPA Explosion-Proof Panel Heater is ideal for freeze protection of control enclosures in locations where explosive atmospheres may exist and other confined or enclosed areas with moderate heating requirements.

Typical applications include:

- Control cabinets
- Instrument enclosures
- Small storage rooms
- Cabinets for volatile products

## Construction

The Norseman™ XPA Explosion-Proof Panel Heater's custom extruded aluminum convector assembly features a high density fin array to maximize surface area and ensure safe and efficient convective heat

transfer. The Norseman™ XPA heater is anodized black for maximum heat transfer and corrosion resistance.

The standard heater is configured with an explosion-proof junction box and includes a mounting bracket and hardware. As a precaution against excessive convector temperatures, the unit comes standard with two levels of safe temperature control. The primary control is a nonadjustable thermostat set to control the space temperature between 50°F and 64°F (10°C and 18°C). The secondary control is a thermal fuse with a nonadjustable limit set to the maximum temperature allowed for the temperature code classification. Optional junction boxes, optional pre-set thermostats, adjustable thermostats and protection grilles are available.

## Selection of Temperature Code

Refer to the atmospheric condition table (Table 2, page 6) at the beginning of this catalog for detailed selection data for the temperature code.

To minimize heater cost and physical size, select the model with the highest temperature code suiting the environment.

In Table 15, page 19 a check mark (✓) under the temperature code indicates the heater surface temperature will not exceed the coded value listed in the atmospheric condition table (Table 2, page 6).

Refer to the Hazardous Locations Resources on Norseman's website ([www.norsemanheaters.com](http://www.norsemanheaters.com)) for information on temperature code selection.

## Model Coding\*

XPA	S	-	100	T3B	120	-	4	10	G
Model Series	Heater Type		Wattage	Temperature Code	Heater Voltage		Junction Box	Thermostat	Options
	S - Short		050 - 50 W	T2/T2D	120 - 120V		1 - XTWA	0 - 32°F (0°C) on /	G - Wire Guard
	L - Long		075 - 75 W	T3	208 - 208V		2 - XT-311	46°F (8°C) off	
	R - Round		080 - 80 W	T3B	240 - 240V		3 - XT-411	10 - 50°F (10°C) on /	
			100 - 100 W	T3C			4 - XJB-4	64°F (18°C) off	
			125 - 125 W	T4				20 - 68°F (20°C) on /	
			150 - 150 W					82°F (28°C) off	
			200 - 200 W					30 - 86°F (30°C) on /	
			250 - 250 W					100°F (38°C) off	
			300 - 300 W					N - Adjustable	
			400 - 400 W					Thermostat	
			500 - 500 W						
			600 - 600 W						
			700 - 700 W						

Other set points available upon request.

Please consult Table 15, page 19 for availability.

\*This nomenclature illustration is intended primarily to explain how a product part number is defined. Not all wattage, size and temperature code combinations are available.

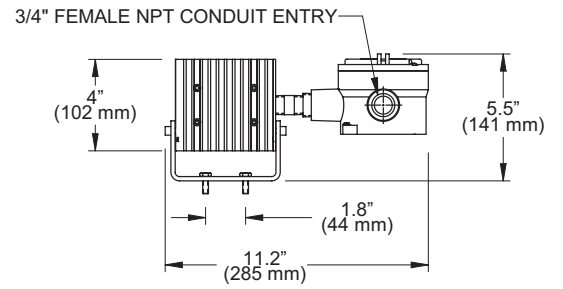
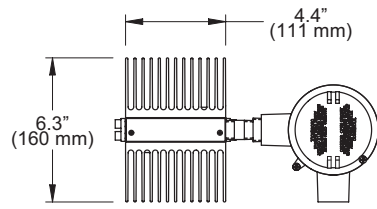


Figure 12 – XPAS with XJB-4 Junction Box

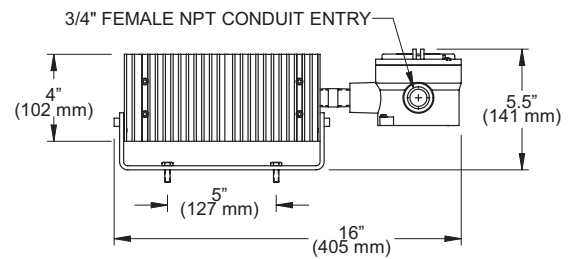
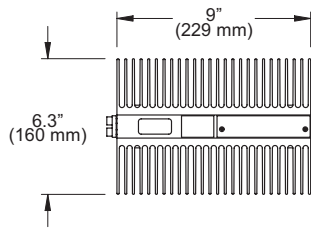


Figure 13 – XPAL with XJB-4 Junction Box

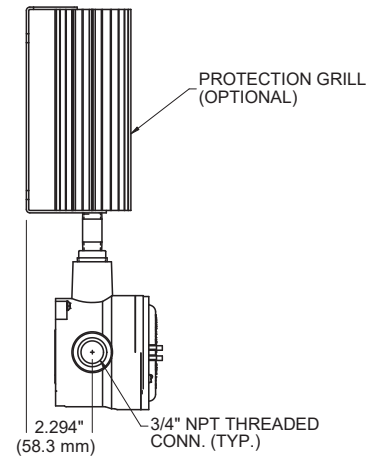
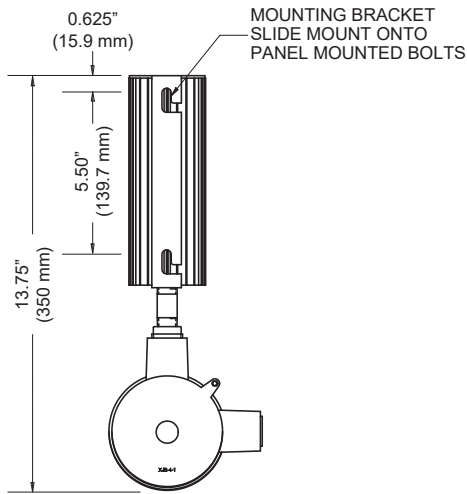


Figure 14 – XPAR with XJB-4 Junction Box

## Junction Box & Thermostat Selection

The Norseman™ XPA heaters come standard with an XJB-4 junction box and a 50°F (10°C) pre-set thermostat. Other junction boxes and thermostat options are available as shown in Table 15, page 19.

Table 14 – Available Junction Box & Thermostat Options

Junction Box	Standard (S) or Optional (O)	Hazardous Classification	Hazardous Groups	NEMA 4	Adjustable Thermostat (Range °C)	Provided with Preset Thermostat	Special Features
XJB-4	S	Cl I, Div 1 Zone 1, 2	A, B, C, D IIC	Y	N	Y*	Side Conduit Entry
XTWA	O	Cl I, Div 1 Zone 1, 2	A, B, C, D IIC	Y	Y (-18 to 40)	N	<b>x-Max®</b> Housing
XT-311	O	Cl I, Div 1 Zone 1, 2	C, D IIB	N	Y (2 to 28)	N	Small Bandwidth for Adjustment
XT-411	O	Cl I, Div 1 Zone 1, 2	C, D IIB	N	Y (5 to 30)	N	Suitable for Robust Applications

**Note:** \* Pre-set thermostats are available in the following ranges:  
 0 = 32°F (0°C) on / 46°F (8°C) off  
 10 = 50°F (10°C) on / 64°F (18°C) off  
 20 = 68°F (20°C) on / 82°F (28°C) off  
 30 = 86°F (30°C) on / 100°F (38°C) off  
 Other set points available upon request

## Installation

All Norseman™ XPA heaters must be installed with junction boxes and/or conduit, as required by applicable local and national codes.

The Norseman™ XPAL & XPAS heater may be mounted in the side or horizontal orientations shown below. "Horizontal Only" XPAL Models are available to allow maximum wattage application at given temperature codes. See Table 15, page 19 for "Horizontal Only" applications. The Norseman™ XPAR may only be mounted in the vertical orientation as shown below.

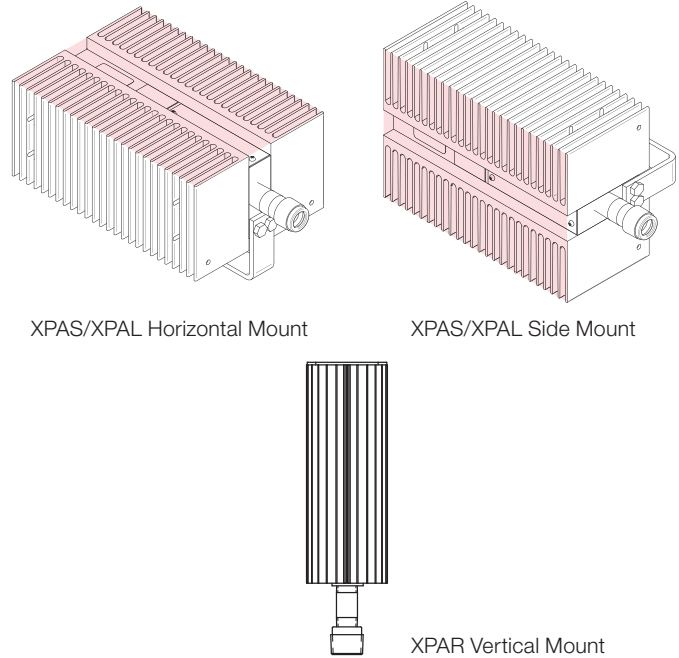


Table 15 – Norseman™ XPA Heater Selection

Length	W	Fig. No.	Class I, Div 1 & 2, see notes for Groups				Weight lbs (kg)	Part No.
			T2/T2D	T3	T3B/T3C	T4		
4.375" (111 mm)	75	12	✓	✓	✓	✓	7.4 (3.4)	XPAS-075
	100	12	✓	✓	✓	–		XPAS-100
	125	12	✓	✓	✓	–		XPAS-125
	150	12	✓	✓	–	–		XPAS-150
	200	12	✓	✓	–	–		XPAS-200
	250	12	✓	–	–	–		XPAS-250
9" (229 mm)	100	13	✓	✓	✓	✓	12.8 (5.9)	XPAL-100
	150	13	✓	✓	✓	✓		XPAL-150
	200	13	✓	✓	✓	✓		XPAL-200
	250	13	✓	✓	✓	Horizontal Only		XPAL-250
	300	13	✓	✓	✓	–		XPAL-300
	400	13	✓	✓	Horizontal Only	–		XPAL-400
	500	13	✓	✓	–	–		XPAL-500
	600	13	✓	Horizontal Only	–	–		XPAL-600
7" (178 mm)	50	14	Vertical Only	Vertical Only	Vertical Only	Vertical Only	3.8 (1.7)	XPAS-050
	80	14	Vertical Only	Vertical Only	Vertical Only	–		XPAS-080
	125	14	Vertical Only	Vertical Only	–	–		XPAS-125
	150	14	Vertical Only	–	–	–		XPAS-150

**Note:** Groups A, B, C & D, IIC apply when using XJB-4 and XTWA junction boxes.  
 Groups C & D, IIB apply when using XT-311 and XT-411 junction boxes with adjustable thermostats.