

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_{US} 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 15 & 16, page 19 & 20.

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 & 16, page 19 & 20 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) for information on temperature code selection.

Model Coding*

XPA	S	H	-	100	T3B	120	-	4	10	G
Model Series	Heater Type	High Ambient		Wattage	Temperature Code	Heater Voltage		Junction Box	Thermostat	Options
	S - Short	H		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	T3A	240 - 240V		3 - XT-411	10 - 50°F (10°C) on /	
				100 - 100 W	T3B			4 - XJB-4	64°F (18°C) off	
				125 - 125 W	T3C				20 - 68°F (20°C) on /	
				150 - 150 W	T4				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					40 - 104°F (40°C) on /	
				400 - 400 W					118°F (48°C) off	
				500 - 500 W					50 - 122°F (50°C) on /	
				600 - 600 W					136°F (58°C) off	
				700 - 700 W					XX - Special Range	
									N - Adjustable	
									Thermostat	

*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.

Please consult Table 15, page 19 for availability.

Other set points available upon request.

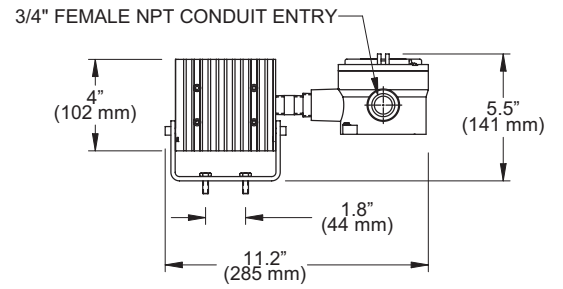
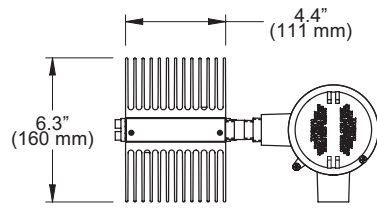


Figure 12 – XPAS / XPASH with XJB-4 Junction Box

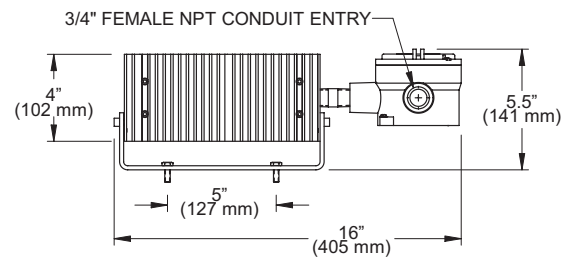
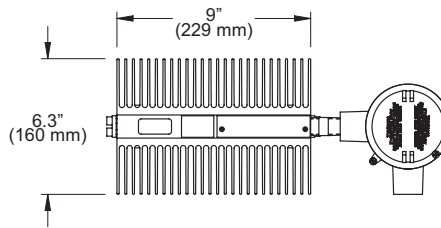


Figure 13 – XPAL / XPALH with XJB-4 Junction Box

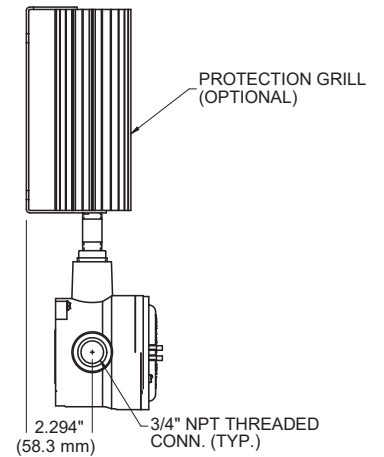
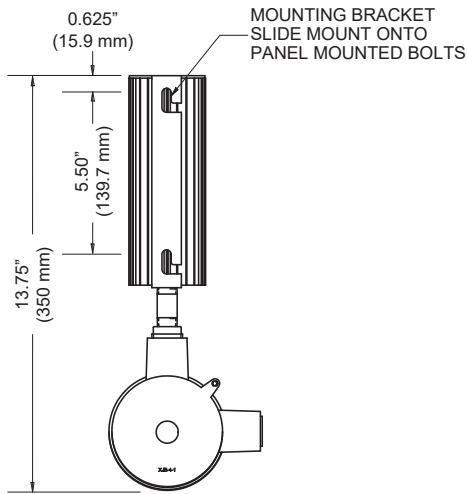


Figure 14 – XPAR / XPARH with XJB-4 Junction Box

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 14, 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	x-Max® Housing
XT-311	O	Cl I, Div 1 Zone 1, 2	C, D IIB	N	Y (2 to 28)	N	Small Bandwidth for Adjustment Suitable for Robust Applications
XT-411	O	Cl I, Div 1 Zone 1, 2	C, D IIB	N	Y (5 to 30)	N	

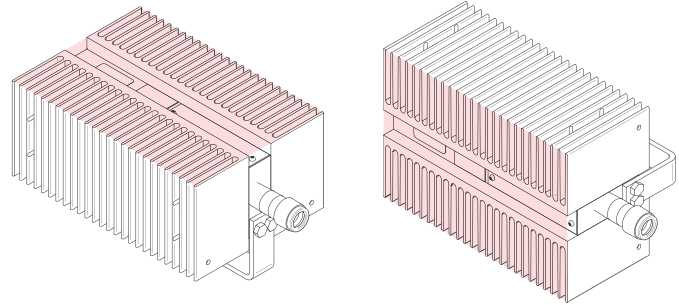
Note: * Pre-set thermostats are available in the following ranges:

0 = 32°F (0°C) on / 46°F (8°C) off 40 = 104°F (40°C) on / 118°F (48°C) off
 10 = 50°F (10°C) on / 64°F (18°C) off 50 = 122°F (50°C) on / 136°F (58°C) off
 20 = 68°F (20°C) on / 82°F (28°C) off XX = Special range
 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.



XPASH/XPALH Horizontal Mount

XPASH/XPALH Side Mount



XPAR/XPARH Vertical Mount

Table 15 – Norseman™ XPA Heater Selection

Length	W	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	✓	✓	✓	✓	7.4 (3.4)	XPAS-075
	100	✓	✓	✓	-		XPAS-100
	125	✓	✓	✓	-		XPAS-125
	150	✓	✓	-	-		XPAS-150
	200	✓	✓	-	-		XPAS-200
	250	✓	-	-	-		XPAS-250
9" (229 mm)	100	✓	✓	✓	✓	12.8 (5.9)	XPAL-100
	150	✓	✓	✓	✓		XPAL-150
	200	✓	✓	✓	✓		XPAL-200
	250	✓	✓	✓	Horizontal Only		XPAL-250
	300	✓	✓	✓	-		XPAL-300
	400	✓	✓	Horizontal Only	-		XPAL-400
	500	✓	✓	-	-		XPAL-500
	600	✓	Horizontal Only	-	-		XPAL-600
	700	Horizontal Only	-	-	-		XPAL-700
7" (178 mm)	50	Vertical Only	Vertical Only	Vertical Only	Vertical Only	3.8 (1.7)	XPAR-050
	80	Vertical Only	Vertical Only	Vertical Only	-		XPAR-080
	125	Vertical Only	Vertical Only	-	-		XPAR-125
	150	Vertical Only	-	-	-		XPAR-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.

Table 16 – Norseman™ High Ambient XPA Models

Length	Wattage	Temperature Code				Part No.
		T2D ⁽¹⁾	T3	T3A	T3C	
4.375" (111 mm)	75	✓	✓	✓	✓	XPASH-075
	100	✓	✓	✓	n/a	XPASH-100
	125	✓	✓	✓	n/a	XPASH-125
	150	✓	n/a	n/a	n/a	XPASH-150
	200	✓	n/a	n/a	n/a	XPASH-200
9" (221 mm)	100	✓	✓	✓	✓	XPALH-100
	150	✓	✓	✓	✓	XPALH-150
	200	✓	✓	✓	✓	XPALH-200
	250	✓	✓	✓	Horizontal Only	XPALH-250
	300	✓	✓	✓	n/a	XPALH-300
	400	✓	Horizontal Only	Horizontal Only	n/a	XPALH-400
	500	✓	n/a	n/a	n/a	XPALH-500
7" (178 mm)	50	Vertical Only	Vertical Only	Vertical Only	Vertical Only	XPARH-050
	80	Vertical Only	Vertical Only	Vertical Only	n/a	XPARH-080
	125	Vertical Only	n/a	n/a	n/a	XPARH-125

- Note:**
1. T2D models are rated for 55°C maximum ambient temperature.
 2. All other heaters are rated for 60°C maximum ambient temperature.
 3. High ambient units only available with XJB-4 junction box.