

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, 240V and 277V, 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/UKCA 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 / 46°F (8°C) off	G - Wire Guard
	L - Long			075 - 75 W	T3	208 - 208V		2 - XT-311	10 - 50°F (10°C) on / 64°F (18°C) off	
	R - Round			080 - 80 W	T3A	240 - 240V		3 - XT-411	20 - 68°F (20°C) on / 82°F (28°C) off	
	X - Extra Long			100 - 100 W	T3B	277 - 277V		4 - XJB-4	30 - 86°F (30°C) on / 100°F (38°C) off	
				125 - 125 W	T3C				40 - 104°F (40°C) on / 118°F (48°C) off	
				150 - 150 W	T4				50 - 122°F (50°C) on / 136°F (58°C) off	
				200 - 200 W					XX - Special Range	
				250 - 250 W					N - Adjustable Thermostat	
				300 - 300 W						
				400 - 400 W						
				500 - 500 W						
				600 - 600 W						
				700 - 700 W						
				800 - 800 W						

*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.

Other set points available upon request.

Please consult Table 15, page 20 for availability.

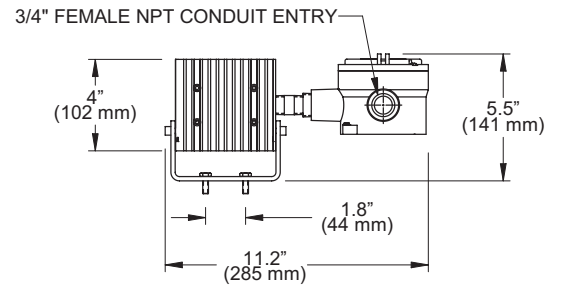
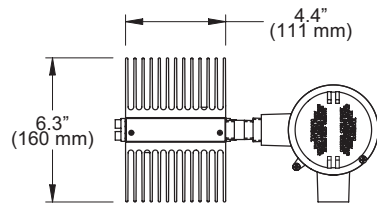


Figure 12 – XPAS / XPASH with XJB-4 Junction Box

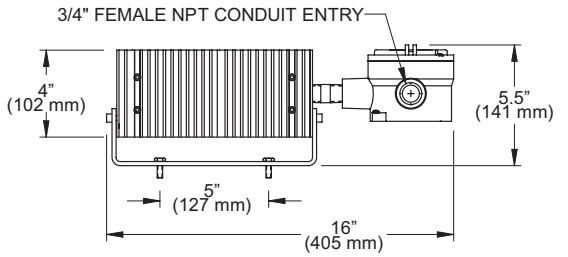
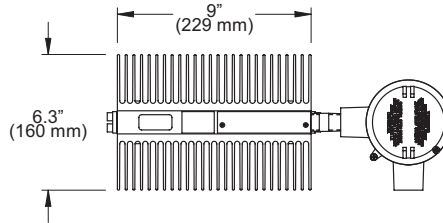


Figure 13 – XPAL / XPALH with XJB-4 Junction Box

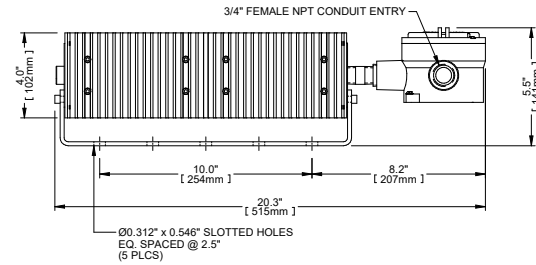
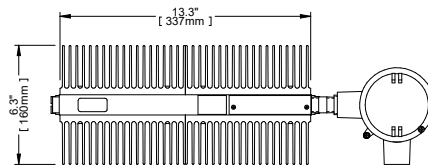


Figure 14 – XPAX with XJB-4 Junction Box

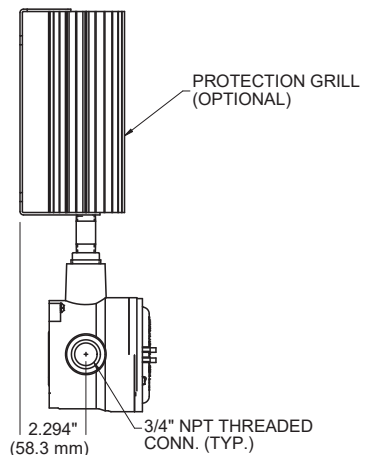
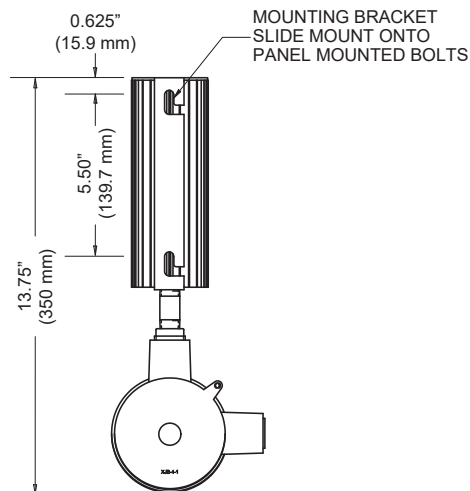


Figure 15 – XPAR / XPARH with XJB-4 Junction Box

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 20.

Table 13 – 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, Div1 Zone 1, 2	A, B, C, D IIC	Y	N	Y*	Side Conduit Entry
XTWA	O	Cl I, Div1 Zone 1, 2	A, B, C, D IIC	Y	Y (-18 to 40)	N	x-Max® Housing
XT-311	O	Cl I, Div1 Zone 1, 2	C, D IIB	N	Y (2 to 28)	N	Small Bandwidth for Adjustment
XT-411	O	Cl I, Div1 Zone 1, 2	C, D IIB	N	Y (5 to 30)	N	Suitable for Robust Applications

Note: 1. 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

40 = 104°F (40°C) on / 118°F (48°C) off

50 = 122°F (50°C) on / 136°F (58°C) off

XX = Special range

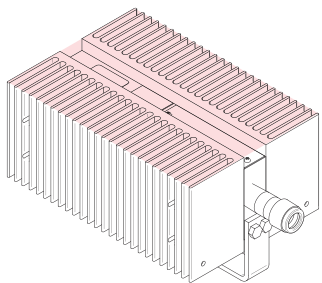
Other set points available upon request

2. Units operating above +40°C need "-H" added to model coding.
Refer to High Ambient XPA model chart for available units.

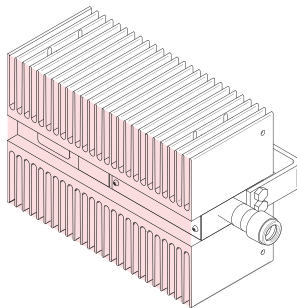
Installation

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 20 for "Horizontal Only" applications. The Norseman™ XPAR may only be mounted in the vertical orientation as shown on figure 15.



XPASH/XPALH Horizontal Mount



XPASH/XPALH Side Mount



XPAR/XPARH Vertical Mount

Table 14 – Norseman™ XPA Heater Selection

Length	W	Class I, Div 1 & 2, see notes for Groups				Weight	Part No.
		T2/T2D	T3	T3B/T3C	T4	lbs (kg)	
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
7" (178 mm)	50	Vertical Only	Vertical Only	Vertical Only	Vertical Only	3.8 (1.7)	XPAP-050
	80	Vertical Only	Vertical Only	Vertical Only	-		XPAP-080
	125	Vertical Only	Vertical Only	-	-		XPAP-125
	150	Vertical Only	-	-	-		XPAP-150
13.5" (343 mm)	600	✓	✓	-	-	22 (10)	XPAX-600
	700	✓	✓	-	-		XPAX-700
	800	Horizontal Only	✓	-	-		XPAX-800

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 15 – 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
	600	Horizontal Only	n/a	n/a	n/a	XPALH-600
7" (178 mm)	50	Vertical Only	Vertical Only	Vertical Only	Vertical Only	XPAP-050
	80	Vertical Only	Vertical Only	Vertical Only	n/a	XPAP-080
	125	Vertical Only	n/a	n/a	n/a	XPAP-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.
 4. No High Ambient version available in XPAX models.