



PLN™ Ultra-Low NOx Package Burner

Lower Emissions and Advanced Technology.

Zeeco's PLN Ultra-Low NOx Package Burner utilizes surface stabilized combustion to achieve low NOx emissions without the use of Flue Gas Recirculation (FGR). The burner is ideal for generating heat and steam in commercial, institutional, and light industrial applications. The PLN burner delivers dramatically lower emissions and engineering technology that can only come from the global authority in combustion and environmental solutions—Zeeco.

Burner Features and Benefits

- Compact and versatile design for easy installation
- Safe, reliable, easy to set up, simple to maintain
- NOx reduction using Surface Stabilized Combustion
 - 30 ppm (58mg) NOx with 45% excess air levels, No FGR
 - 9 ppm (17mg) NOx with 60% excess air levels, No FGR
- Fires natural gas and propane gas
- High turndown
- Quiet operation with typical noise levels below 85dBA
- Complete integrated system with automatic flame monitoring and shut-off, control panel, fuel control, and combustion air fan

Standard Equipment

- Blower/Motor
- Burner Management System (BMS) Siemens LMV3/LMV51, or AutoFlame Mini Mark 8
- NEMA 1 Integrated Control Panel with Power On switch and indicator lights for power, pilot, main flame, and flame failure
- Parallel Positioning System with air and fuel actuators
- Air and fuel control (BV) valves with servo motors
- Combustion Air Proving Switch
- Air Filter Proving Switch
- Ignition Transformer with pilot assembly
- Hinged Blast Tube
- Air Inlet Filters
- Pilot Train - includes regulator, solenoid valve, and manual valve
- Main Fuel Train - includes ventless regulator, ventless dual block main gas shutoff valves, high and low pressure switches, two manual gas valves

Burner Selection

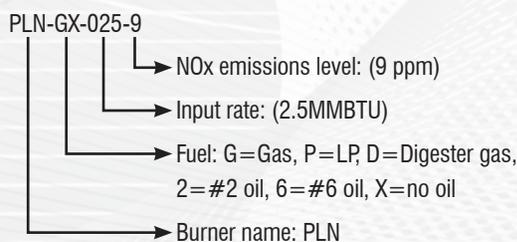
✓ Standard
○ Optional

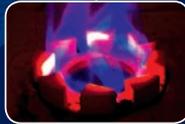
Burner Model	Frame Size	Burner Size MMBTU	Turndown Gas	BMS System Standard	Scanner	
					UV	IR
PLN-GX-025-9	1	2.5	4-1	LMV3	✓	○
PLN-GX-030-9		3.0				
PLN-GX-042-9		4.2				
PLN-GX-053-9	2	5.3	4-1	LMV3	✓	○
PLN-GX-063-9		6.3				
PLN-GX-084-9		8.4				
PLN-GX-105-9	3	10.5	8-1	LMV51	✓	○
PLN-GX-126-9		12.6				
PLN-GX-147-9		14.7				
PLN-GX-168-9		16.8				
PLN-GX-210-9	4	21.0	10-1	LMV51	✓	○
PLN-GX-252-9		25.2				
PLN-GX-294-9		29.4				
PLN-GX-336-9	5	33.6	10-1	LMV51	✓	○
PLN-GX-378-9		37.8				
PLN-GX-420-9		42.0				
PLN-GX-504-9	6	50.4	10-1	LMV51	✓	○
PLN-GX-546-9		54.6				
PLN-GX-630-9		63.0				

Optional Equipment

- All UL listed Burner Management Systems
- O2 Trim
- Variable Frequency Drive (VFD)
- Remote Control Panels

Burner Model Naming Convention





BURNERS



FLARES



INCINERATORS



PARTS & SERVICE

PLN™ Ultra-Low NOx Package Burner

Burner model: PLN
 Heat release range: 2.5 MMBtu/hr to 63 MMBtu/hr (0.73 MW to 18.5 MW)
 Fuel Gas: Natural Gas, LPG, or other upon request
 Turndown: up to 10:1
 Excess air range: 35% to 60%
 Expected emissions levels: 40ppm (77mg) NOx at 40% excess air
 30ppm (58mg) NOx at 45% excess air
 15ppm (29mg) NOx at 50% excess air
 9ppm (17mg) NOx at 60% excess air
 Mounting options: Horizontal, Vertical, Up, or Down Firing



Burner Selection

Burner Model	Frame Size	Burner Size		Boiler		Blower Motor HP	Furnace Pressure		Standard Gas Train Size	Required Min Gas	
		MMBTU HHV	MW/h LHV	HP 80% Eff.	ton/h 90% Eff.		[inch W.C.]	[mBar]		Pres. [PSI]	Pres. [mBar]
PLN-GX-025-9	1	2.5	0.65	60	0.95	2	4	10	1.5	0.5	34
PLN-GX-030-9		3.0	0.78	71	1.14	3	4	10	2	0.5	34
PLN-GX-042-9		4.2	1.10	100	1.60	5	4	10	2	0.5	34
PLN-GX-053-9	2	5.3	1.37	125	2.00	5	6	15	2	0.8	52
PLN-GX-063-9		6.3	1.64	150	2.39	7.5	6	15	2	1.0	69
PLN-GX-084-9		8.4	2.19	200	3.19	7.5	6	15	2	1.0	69
PLN-GX-105-9	3	10.5	2.74	250	3.99	10	8	20	2.5	1.0	69
PLN-GX-126-9		12.6	3.29	300	4.79	15	8	20	2.5	1.0	69
PLN-GX-147-9		14.7	3.84	350	5.59	20	8	20	2.5	1.5	103
PLN-GX-168-9		16.8	4.38	400	6.38	25	8	20	2.5	1.5	103
PLN-GX-210-9	4	21.0	5.48	500	7.98	30	8	20	3	2.0	138
PLN-GX-252-9		25.2	6.58	600	9.58	40	8	20	3	2.0	138
PLN-GX-294-9		29.4	7.67	700	11.17	50	8	20	3	2.0	138
PLN-GX-336-9	5	33.6	8.77	800	12.77	60	10	25	3	2.5	172
PLN-GX-378-9		37.8	9.87	900	14.36	60	10	25	4	2.5	172
PLN-GX-420-9		42.0	10.96	1000	15.96	75	10	25	4	2.5	172
PLN-GX-504-9	6	50.4	13.15	1200	19.15	75	10	25	4	3.0	207
PLN-GX-546-9		54.6	14.25	1300	20.75	100	10	25	4	4.0	276
PLN-GX-630-9		63.0	16.44	1500	23.94	100	10	25	4	4.0	276

ZEECO® combustion and environmental solutions are designed and manufactured to comply with applicable local and international standards as defined by our customers.



REGISTERED
ISO 9001: 2008

CERTIFICATION APPLIES TO ZEECO HEADQUARTERS ONLY.

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Lower Emissions and Advanced Technology.

Zeeco's PLN-Mini Ultra-Low NOx Package Burner utilizes surface stabilized combustion to achieve low-NOx emissions without the use of Flue Gas Recirculation (FGR). The burner is ideal for firetube boilers, cast iron boilers, condensing boilers, and for generating heat and steam in commercial, institutional, and light industrial applications. The PLN-Mini burner delivers dramatically lower emissions and engineering technology that can only come from the global authority in combustion and environmental solutions—Zeeco.

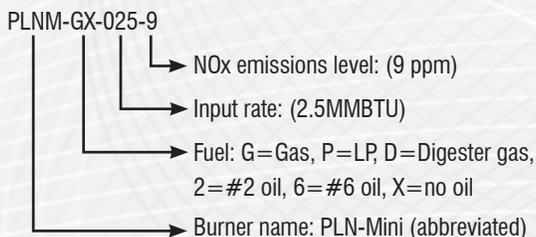
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- Fires natural gas and propane gas
- Quiet operation with typical noise levels below 85dBA
- Complete integrated system with automatic flame monitoring and shut-off, control panel, fuel control and combustion air fan
- Integrated PWM signal input for full speed air modulation

Standard Equipment

- Blower/Motor
- Burner Management System (BMS) Siemens LMV3 or AutoFlame Mini Mark 8
- NEMA 1 Integrated Control Panel with Power On switch and indicator lights for power, pilot, main flame, and flame failure
- Parallel Positioning System with fuel actuators
- Fuel control (BV) valves with servo motors
- Air control via PWM signal
- Combustion Air Proving Switch
- Air Filter Proving Switch
- Ignition Transformer with direct spark ignition assembly
- Hinged Blast Tube
- Air Inlet Filters
- Main Fuel Train - includes ventless regulator, ventless dual block main gas shutoff valves, high and low pressure switches, two manual gas valves

Burner Model Naming Convention



Burner Selection

✓ Standard
o Optional

Burner Model	Frame Size	Burner Size MMBTU	Turndown Gas	BMS System Standard	Scanner	
					UV	IR
PLNM-GX-005-60 PLNM-GX-010-60 PLNM-GX-015-60	1	0.5 1.0 1.2	4-1	LMV36	✓	o
PLNM-GX-017-60 PLNM-GX-020-60 PLNM-GX-025-60	2	1.5 2.0 2.2	6-1	LMV36	✓	o



BURNERS



FLARES



INCINERATORS



PARTS & SERVICE

PLN-Mini™ Ultra-Low NOx Package Burner

Burner model: PLN-Mini
 Heat release range: 0.5 MMBtu/hr to 2.2 MMBtu/hr (0.73 MW to 18.5 MW)
 Fuel Gas: Natural Gas, LPG, or other upon request
 Turndown: up to 6:1
 Excess air range: 35% to 60%
 Expected emissions levels: 40ppm (77mg) NOx at 40% excess air
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	Frame Size	MMBTU HHV	MW/h LHV	HP 80% Eff.	ton/h 90% Eff.		[inch W.C.]	[mBar]		Pres. [PSI]	Pres. [mBar]
PLNM-GX-005-60	1	0.5	0.13	12	0.19	0.5	1	2	1.5	0.15	10
PLNM-GX-010-60		1.0	0.26	24	0.38	0.5	1	2	1.5	0.15	10
PLNM-GX-015-60		1.2	0.31	29	0.46	0.5	1	2	1.5	0.15	10
PLNM-GX-017-60	2	1.5	0.39	36	0.57	0.75	1	2	2	0.15	10
PLNM-GX-020-60		2.0	0.52	48	0.76	0.75	1	2	2	0.15	10
PLNM-GX-025-60		2.2	0.57	52	0.84	0.75	1	2	2	0.15	10

ZEECO® combustion and environmental solutions are designed and manufactured to comply with applicable local and international standards as defined by our customers.



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