

# PX SERIES

## HID Explosion proof Series



(Wall Bracket Mount)



(Ceiling Mount)



(Pendant Mount)



(Stanchion Mount)

**DESCRIPTION:** The *PX Series* is a High Intensity Discharge explosion proof fixture. Suitable for use in chemical plants, refineries and other hazardous applications where vapors, gases and dusts are present. Typical applications include chemical plants, drill rigs, refineries, paint spray booths, and other marine and hazardous location environments.

### SPECIFICATIONS

**Construction:** Die cast housing is made from marine-grade, low copper content aluminum alloy for excellent resistance to corrosion. Exposed hardware is stainless steel.

**Lamp Type and Wattage:** Available in four lamp types - high pressure sodium (50-400 watt), metal halide (70-150 watt), pulse start metal halide (175-400 watt), and mercury vapor (100-400 watt).

**Globe:** Heat and impact-resistant clear prismatic glass globe standard.

**Factory Sealed:** No external seal required. Simply wire mounting cap and thread on fixture to install.

**Options:** Available with factory installed Instant Restrike for HPS fixtures up to 150 watt, auxiliary quartz circuit, ballast protector, and fuse kits. (See Ordering Information for details.)

**Mounting Accessories:** Versatile mounting options include wall bracket, ceiling, pendant, or stanchion mounts. Must be mounted with lamp base in the up position. (Order separately.) Hub sizes: 3/4" or 1" size for pendant, ceiling, and wall bracket mounts. 1-1/4"/1-1/2" standard on Stanchion mounts.

**Guard Accessories:** Fixture available with or without protective guard. Guard is painted die cast aluminum up to 250W; plated steel wire guard on 400W units. (Order separately.)

**Reflector Accessories:** Standard dome, deep dome, or angled dome reflectors available. (Order separately.)

### COMPLIANCES

#### UL 844 Listed Hazardous Location

Class I, Division 1 & 2 / Groups C & D

Class I, Zone 1 & 2, Groups IIB, IIA

Class II, Division 1 & 2/ Groups E,F,G

Class III, Div. 1 & 2

Suitable for Wet Locations

UL 1598-A Marine

NEMA 3, 4, 4X

CSA C22.2 (Not available with Pulse Start units)



N-5610604B

# TEMPERATURE RATINGS

PX SERIES LAMPING		RATED AMBIENT °C	CLASS I, DIVISIONS 1 & 2 MAXIMUM SURFACE TEMPERATURE			PAINT SPRAY BOOTH SUITABILITY
TYPE	WATTAGE		W/O QTZ.	W/QTZ.	GROUPS	
HPS	50	40	T4A	T4	C,D	YES
		55	T4A	N/A	C,D	NO
		65	T4A	N/A	C,D	NO
	70	40	T4A	T4	C,D	YES
		55	T4A	N/A	C,D	NO
		65	T4A	N/A	C,D	NO
	100	40	T4A	T4	C,D	YES
		55	T4A	N/A	C,D	NO
		65	T4A	N/A	C,D	NO
	150	40	T4A	T4	C,D	NO
		55	T4A	N/A	C,D	NO
		65	T4	N/A	C,D	NO
250	40	T3C	T3C	C,D	NO	
	55	T3C	N/A	C,D	NO	
	400	40	T3C	T3C	C,D	NO
MH	70	40	T4A	N/A	C,D	YES
		55	T4A	N/A	C,D	NO
		65	T4A	N/A	C,D	NO
	100	40	T4A	N/A	C,D	YES
		55	T4A	N/A	C,D	NO
		65	T4A	N/A	C,D	NO
	150	40	T4A	N/A	C,D	NO
		55	T4A	N/A	C,D	NO
		175	40	T4	T3C	C,D
	250	40	T3C	T3C	C,D	NO
		55	T3C	N/A	C,D	NO
		400	40	T3A	T3C	C,D
PSMH	175	40	T4	T3C	C,D	NO
		55	T4	N/A	C,D	NO
	250	40	T3C	T3C	C,D	NO
		55	T3C	N/A	C,D	NO
	350	40	T3A	T3A	C,D	NO
		400	40	T3A	T3A	C,D
MV	100	40	T4	T3C	C,D	YES
		55	T4	N/A	C,D	NO
	175	40	T4	T3C	C,D	NO
		55	T4	N/A	C,D	NO
	250	40	T3C	T3C	C,D	NO
		400	40	T3A	T3A	C,D

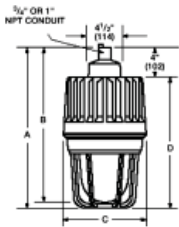
PX SERIES LAMPING		RATED AMBIENT °C	CLASS II, DIVISIONS 1 & 2 MAXIMUM SURFACE TEMPERATURE				CLASS III, DIV. 1 & 2 UL SUITABILITY		
TYPE	WATTAGE		W/O QTZ.	W/QTZ.	GROUPS W/O QTZ.	GROUPS W/ QTZ.	W/O QTZ.	W/ QTZ.	
HPS	50	40	T3C*	T3B*	E,F,G	E,F,G	YES	YES	
		55	T3C*	N/A	E,F,G	N/A	YES	NO	
		65	T3B*	N/A	E,F,G	N/A	YES	NO	
	70	40	T3C*	T3B*	E,F,G	E,F,G	YES	NO	
		55	T3C*	N/A	E,F,G	N/A	YES	NO	
		65	T3B*	N/A	E,F,G	N/A	YES	YES	
	100	40	T3C*	T3B*	E,F,G	E,F,G	YES	NO	
		55	T3C*	N/A	E,F,G	N/A	YES	NO	
		65	T3B	N/A	E,F,G	N/A	YES	YES	
	150	40	T3C*	T3B*	E,F,G	N/A	YES	YES	
		55	T3C*	N/A	E,F,G	N/A	YES	YES	
		65	T3B*	N/A	E,F,G	E,F	YES	YES	
250	40	T3	T3	E,F,G	N/A	NO	NO		
	400	40	N/A	N/A	N/A	NO	NO		
	MH	70	40	T4A	N/A	E,F,G	N/A	YES	NO
55			T4	N/A	E,F,G	N/A	YES	NO	
65			T3C	N/A	E,F,G	N/A	YES	NO	
MH	100	40	T4A	N/A	E,F,G	N/A	YES	NO	
		55	T4	N/A	E,F,G	N/A	YES	NO	
		65	T3C	N/A	E,F,G	N/A	YES	NO	
MH	150	40	T4	N/A	E,F,G	N/A	YES	NO	
		55	T3C	N/A	E,F,G	E,F	YES	NO	
		175	40	T3C*	T3A*	E,F,G	N/A	YES	NO
MH	250	40	N/A	N/A	N/A	N/A	NO	NO	
		400	40	N/A	N/A	N/A	NO	NO	
		PSMH	175	40	T3C*	T3A*	E,F,G	E,F	YES
55	T3C*			N/A	E,F,G	N/A	YES	NO	
250	40			N/A	N/A	N/A	N/A	NO	NO
PSMH	320	40	N/A	N/A	N/A	N/A	NO	NO	
		350	40	N/A	N/A	N/A	N/A	NO	NO
		400	40	N/A	N/A	N/A	N/A	NO	NO
MV	100	40	T3C*	T3A*	E,F,G	E,F	YES	NO	
		55	T3C*	N/A	E,F,G	N/A	YES	NO	
		175	40	T3C	T3A*	E,F,G	E,F	YES	NO
MV	250	40	T3C	N/A	E,F,G	N/A	YES	NO	
		400	40	N/A	N/A	N/A	NO	NO	
		400	40	N/A	N/A	N/A	N/A	NO	NO

**NOTES:**

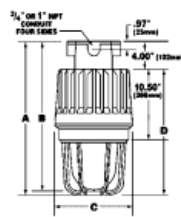
- \* Temperature codes marked with an asterisk (\*) on Class II table are listed for simultaneous use in Class I, Groups C,D, and Class II, Groups E, F, G or Groups E, F.
- Fixtures equipped with Instant Restrike option are limited to 55°C ambient maximum.
- Fixtures designated with "NO" or "N/A" are not suitable for use in the corresponding application.

# WEIGHTS AND DIMENSIONS

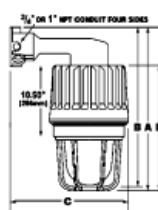
Pendant



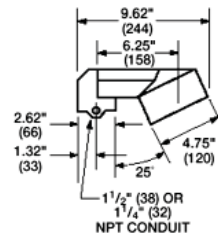
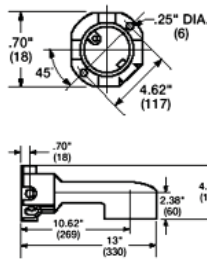
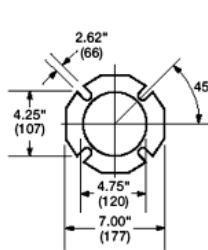
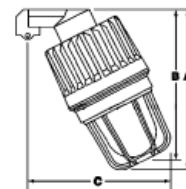
Ceiling



Wall Bracket



Stanchion



	MOUNTING DIMENSIONS														
	PENDANT				CEILING				BRACKET				STANCHION		
	A	B	C	D	A	B	C	D	A	B	C	D	A	B	C
50-250W*	22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22" (558)	21-1/4" (539)	11-1/4" (285)	18" (457)	22-7/8" (580)	22-1/8" (561)	16-3/4" (425)	18" (457)	24-7/8" (631)	24" (609)	19-13/16" (503)
250-400W**	26-1/4" (666)	24-1/4" (615)	11-1/4" (285)	22-1/4" (565)	26-1/4" (666)	24-1/4" (615)	11-1/4" (285)	22-1/4" (565)	26-7/8" (682)	24-7/8" (631)	16-3/4" (425)	22-1/4" (565)	28-1/2" (724)	26-11/16" (678)	21-1/2" (546)

\* 50, 70, 100, and 150W HPS; 70, 100, 175 and 250W MH; 100, 175, 250W MV; 175, 250W PSMH.

\*\* 250 and 400W HPS, 400W MH and MV; 320, 350, 400W PSMH.

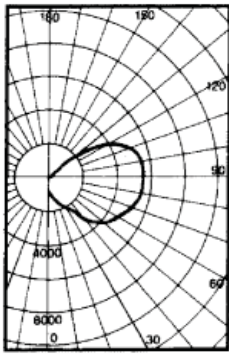
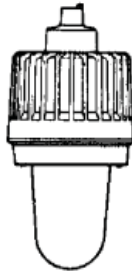
# PHOTOMETRICS

## High Pressure Sodium 400W - Globe Only

**HIGH PRESSURE SODIUM**  
With Globe Only  
250 - 400 Watt Mogul Base

**CANDLEPOWER - 400 WATT**  
E - 18 clear lamp  
50000 lumens

For 250 watt multiply by .60



ANGLE	CP	ANGLE	CP
0	853.	90.0	5345.
5.0	856.	95.0	5305.
10.0	1089.	100.0	5222.
15.0	1458.	105.0	5065.
20.0	1754.	110.0	4801.
25.0	1907.	115.0	4382.
30.0	2041.	120.0	3744.
35.0	2261.	125.0	2969.
40.0	2967.	130.0	1968.
45.0	3500.	135.0	965.
50.0	3934.	140.0	357.
55.0	4323.	145.0	82.
60.0	4602.	150.0	8.
65.0	4807.	155.0	0.
70.0	5023.	160.0	0.
75.0	5187.	165.0	0.
80.0	5288.	170.0	0.
85.0	5333.	175.0	0.
		180.0	0.

Efficiency 88.5%

### COEFFICIENTS OF UTILIZATION — ZONAL CAVITY METHOD

% EFFECTIVE CEILING CAVITY REFLECTANCE $\rho_{cc}$	80					70					50					30					10					0										
	70	50	30	10	0	70	50	30	10	0	50	30	10	0	50	30	10	0	50	30	10	0														
% WALL REFLECTANCE $\rho_w$	20% Effective Floor Cavity Reflectance																																			
ROOM CAVITY RATIO RCR	20% Effective Floor Cavity Reflectance																																			
0	97	97	97	97	90	90	90	78	78	78	66	66	66	56	56	56	51	97	97	97	97	90	90	90	78	78	78	66	66	66	56	56	56	51		
1	83	78	71	66	78	71	66	61	60	56	52	50	47	44	41	38	36	32	83	78	71	66	78	71	66	61	60	56	52	50	47	44	41	38	36	32
2	73	53	55	49	67	58	51	45	48	43	38	40	36	32	29	26	22	22	73	53	55	49	67	58	51	45	48	43	38	40	36	32	29	26	22	22
3	65	54	45	38	59	49	41	35	41	35	30	29	24	26	23	19	15	15	65	54	45	38	59	49	41	35	41	35	30	29	24	26	23	19	15	15
4	59	46	37	31	54	43	35	28	36	29	24	20	24	20	23	19	15	12	59	46	37	31	54	43	35	28	36	29	24	20	24	20	23	19	15	12
5	53	40	31	25	48	37	29	23	31	24	19	25	20	16	20	15	12	09	53	40	31	25	48	37	29	23	31	24	19	25	20	16	20	15	12	09
6	48	35	27	21	44	32	25	19	27	21	16	22	17	13	17	13	10	07	48	35	27	21	44	32	25	19	27	21	16	22	17	13	17	13	10	07
7	44	31	23	17	40	29	21	15	24	17	13	19	14	10	15	11	08	05	44	31	23	17	40	29	21	15	24	17	13	19	14	10	15	11	08	05
8	41	28	20	14	37	26	18	13	21	15	11	18	12	09	14	10	06	04	41	28	20	14	37	26	18	13	21	15	11	18	12	09	14	10	06	04
9	38	25	18	12	34	23	16	11	19	13	09	16	11	07	12	08	05	03	38	25	18	12	34	23	16	11	19	13	09	16	11	07	12	08	05	03
10	35	23	15	11	32	21	14	10	18	12	08	14	10	06	11	07	04	03	35	23	15	11	32	21	14	10	18	12	08	14	10	06	11	07	04	03

SPACING TO MOUNTING HEIGHT RATIO — S/MH = 4.0  
SPACING CRITERION — SC = 3.8

### ILLUMINATION ON HORIZONTAL SURFACE

**FOOTCANDLE CHART (Initial) 400 WATT H.P.S.**  
HORIZONTAL DISTANCE FROM SOURCE IN FEET

MOUNTING HEIGHT IN FEET	0'	5'	10'	15'	20'	25'	30'	35'	40'	45'
10'	8.53	13.65	12.37	7.38	4.30	2.57	1.59	1.06	74	53
12'	5.92	10.42	9.34	6.66	4.35	2.71	1.79	1.19	85	61
14'	4.35	7.47	6.22	5.67	4.16	2.74	1.85	1.31	92	69
16'	3.33	4.95	4.86	5.31	3.75	2.65	1.87	1.35	1.01	74
18'	2.83	4.03	4.21	4.15	3.64	2.66	1.93	1.42	1.03	79
20'	2.13	3.33	3.41	2.89	3.09	2.40	1.85	1.41	1.06	81
25'	1.37	1.64	2.25	2.06	2.26	1.98	1.65	1.36	1.10	84
30'	95	1.16	1.52	1.45	1.49	1.37	1.21	1.04	82	

FC = (Candlepower) (COS  $\theta$ )  
DISTANCE<sup>2</sup>

Test No. LSI-9055

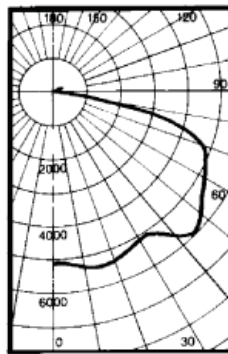
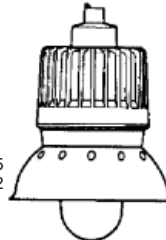
## Metal Halide 400W - Std. Dome Reflector

**MERCURY VAPOR, METAL HALIDE, PULSE START METAL HALIDE**  
With Globe and Standard Dome Reflector  
320 - 400 Watt Mogul Base

**CANDLEPOWER - 400 WATT MH**  
E - 37 coated MH  
36000 lumens

For 400 watt mercury vapor lamp multiply by .625

For CP of MHP320 multiply by .87  
For CP of MHP350 multiply by 1.05  
For CP of MHP400 multiply by 1.22



ANGLE	CP	ANGLE	CP
0	5056	90.0	121.
5.0	5108	95.0	90.
10.0	5242	100.0	83.
15.0	5242	105.0	118.
20.0	5263	110.0	203.
25.0	5173	115.0	290.
30.0	5051.	120.0	258.
35.0	5085.	125.0	145.
40.0	5577.	130.0	36.
45.0	5819.	135.0	0.
50.0	5678.	140.0	0.
55.0	5270.	145.0	0.
60.0	5043.	150.0	0.
65.0	4836.	155.0	0.
70.0	4477.	160.0	0.
75.0	3216.	165.0	0.
80.0	1382.	170.0	0.
85.0	444.	175.0	0.
		180.0	0.

Efficiency 72.5%

### COEFFICIENTS OF UTILIZATION — ZONAL CAVITY METHOD

% EFFECTIVE CEILING CAVITY REFLECTANCE $\rho_{cc}$	80					70					50					30					10					0										
	70	50	30	10	0	70	50	30	10	0	50	30	10	0	50	30	10	0	50	30	10	0														
% WALL REFLECTANCE $\rho_w$	20% Effective Floor Cavity Reflectance																																			
ROOM CAVITY RATIO RCR	20% Effective Floor Cavity Reflectance																																			
0	86	86	86	86	84	84	84	84	80	80	80	76	76	76	72	72	71	86	86	86	86	84	84	84	84	80	80	80	76	76	76	72	72	71		
1	78	74	70	67	75	72	69	66	68	66	63	63	63	61	62	61	59	57	78	74	70	67	75	72	69	66	68	66	63	63	63	61	62	61	59	57
2	70	63	58	53	68	61	56	52	58	54	51	56	52	49	53	50	48	46	70	63	58	53	68	61	56	52	58	54	51	56	52	49	53	50	48	46
3	62	54	47	42	60	53	47	42	50	45	41	48	44	40	46	42	39	37	62	54	47	42	60	53	47	42	50	45	41	48	44	40	46	42	39	37
4	57	47	40	35	55	46	40	35	44	38	34	42	37	33	40	36	33	31	57	47	40	35	55	46	40	35	44	38	34	42	37	33	40	36	33	31
5	52	41	34	29	50	40	34	29	38	33	28	37	32	28	35	31	27	25	52	41	34	29	50	40	34	29	38	33	28	37	32	28	35	31	27	25
6	47	36	29	24	45	35	29	24	34	29	24	32	27	23	31	26	23	21	47	36	29	24	45	35	29	24	34	29	24	32	27	23	31	26	23	21
7	43	32	25	20	41	31	25	20	30	24	20	28	23	19	28	23	19	17	43	32	25	20	41	31	25	20	30	24	20	28	23	19	28	23	19	17
8	39	29	22	17	38	28	22	17	27	21	17	26	21	17	25	20	16	15	39	29	22	17	38	28	22	17	27	21	17	26	21	17	25	20	16	15
9	36	26	19	15	35	25	19	15	24	19	15	23	18	14	22	18	14	13	36	26	19	15	35	25	19	15	24	19	15	23	18	14	22	18	14	13
10	34	23	17	13	33	23	17	13	22	16	13	21	16	12	20	16	12	11	34	23	17	13	33	23	17	13	22	16	13	21	16	12	20	16	12	11

SPACING TO MOUNTING HEIGHT RATIO — S/MH = 1.7  
SPACING CRITERION — SC = 1.7

### ILLUMINATION ON HORIZONTAL SURFACE

**FOOTCANDLE CHART (Initial) 400 WATT M.H.**  
HORIZONTAL DISTANCE FROM SOURCE IN FEET

MOUNTING HEIGHT IN FEET	0'	5'	10'	15'	20'	25'	30'	35'	40'	45'
10'	50.56	37.32	20.57	9.00	4.33	2.29	1.42	0.67	46	14
12'	35.11	28.25	17.56	9.44	4.77	2.72	1.59	1.06	53	38
14'	25.80	22.43	13.98	9.43	5.07	3.00	1.87	1.17	82	43
16'	19.75	18.02	12.03	8.83	5.31	3.23	2.05	1.36	90	66
18'	15.61	14.65	10.41	7.80	5.15	3.25	2.12	1.43	1.03	71
20'	12.94	12.11	9.25	6.51	5.14	3.40	2.25	1.54	1.08	81
25'	8.09	7.91	6.74	5.10	4.25	3.29	2.34	1.66	1.20	92
30'	5.52	5.59	4.99	4.11	3.26	2.81	2.29	1.71	1.27	1.00

FC = (Candlepower) (COS  $\theta$ )  
DISTANCE<sup>2</sup>

Test No. LSI-9052

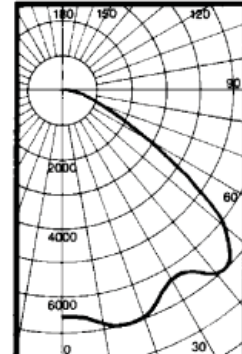
## Metal Halide 400W - Deep Dome Reflector

**MERCURY VAPOR, METAL HALIDE, PULSE START METAL HALIDE**  
With Globe and Deep Dome Reflector  
320 - 400 Watt Mogul Base

**CANDLEPOWER - 400 WATT MH**  
E - 37 coated MH  
36000 lumens

For 400 watt mercury vapor lamp multiply by .625

For CP of MHP320 multiply by .87  
For CP of MHP350 multiply by 1.05  
For CP of MHP400 multiply by 1.22



ANGLE	CP	ANGLE	CP
0	6505.	90.0	121.
5.0	6587.	95.0	90.
10.0	6777.	100.0	83.
15.0	6930.	105.0	118.
20.0	6884.	110.0	

# ORDERING INFORMATION

Fixture and Globe Assembly				
SERIES	TYPE	WATTAGE	VOLTAGE	OPTIONS
<b>PX</b>	<b>H</b>	<b>40</b>	<b>0</b>	<b>Q</b>
PX	H M P S	05 07 10 15 17 25 32 35 40	0 5 6 8 9	BP PS Q R

Both fixture/globe and mounting accessory must be ordered for complete unit. Guard and reflector accessories optional.

## LAMP WATTAGE

- 05 = 50 watts (HPS)
- 07 = 70 watts (MH/HPS)
- 10 = 100 watts (MH/MV/HPS)
- 15 = 150 watts (PSMH/HPS)
- 17 = 175 watts (PSMH/MV)  
(150MH-M107 lamps may also be used. PSMH n/a in 50Hz)
- 25 = 250 watts (MH/PSMH/MV/HPS)
- 32 = 320 watts (PSMH)
- 35 = 350 watts (PSMH)
- 40 = 400 watts (MH/PSMH/MV/HPS)

## LAMP TYPE

- H = Metal Halide (MH)
- M = Mercury Vapor (MV)
- P = Pulse Start Metal Halide (PSMH)
- S = High Pressure Sodium (HPS)

## VOLTAGE

- 0 = Multi Volt (120/208/240/277V) (60HZ tapped at 277V)
- 5 = 480V, 60HZ
- 6 = Tri Volt (120/277/347V) 60HZ for use in Canada
- 8 = 220/240V, 50HZ
- 9 = Specify

## OPTIONS (factory installed)

- BP = Ballast Protector  
(70-400HPS only) Cannot be used with BP or Q options
- PS = Paint Spray Booth Rated  
(100W max. Cannot be used with Instant Restrike Option).
- Q = Auxiliary Quartz  
(100W, 120V. Cannot be used with Instant Restrike Options.)
- R = Instant Restrike  
(50-150 HPS, 50/60Hz only cannot be used with BP or Q options)

# ACCESSORIES

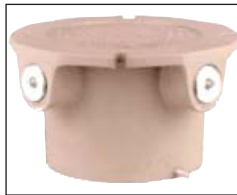
Ordered separately for field installation.

## MOUNTING

- PXA2 = 3/4" Pendant
- PXA3 = 1" Pendant
- PXX2 = 3/4" Ceiling
- PXX3 = 1" Ceiling
- PXB2 = 3/4" Wall Bracket
- PXB3 = 1" Bracket
- PXD4 = 1-1/4"/1-1/2" Stanchion



Pendant Mount



Ceiling Mount



Wall Bracket Mount



Stanchion Mount

## REFLECTOR ACCESSORIES

- PXVMPA-40 = Angle Reflector (Polyester reinforced fiberglass)
- PXVMPSD-40 = Dome Reflector (Polyester reinforced fiberglass)
- PXHRD-400 = Deep Dome Reflector (Aluminum with WHT finish)
- PXHRD-400ALZ = Deep Dome Reflector (Alzak)



PXVMPA-40  
Angle Reflector



PXVMPSD-40  
Dome Reflector



PXHRD-400  
Deep Dome Reflector  
PXHRD-400ALZ (NOT SHOWN)

## GUARD ACCESSORIES

- PXG1 = Cast Guard (50-150HPS, up to 250MH/MV/MHD)
- PXVMAG-40 = Plated Guard (250-400HPS, 400MV, 400PSMH)



PXG1



PXVMAG