

# STANDARD IGNITORS • INSTANT RESTRIKE IGNITORS • LONG DISTANCE IGNITORS • AUTOMATIC SHUTOFF IGNITORS • SHUTOFF DEVICES

## IGNITORS

Catalog Number	Description	Reference Drawing Number
<b>--STANDARD IGNITORS</b>		(See pg. 5-43)
<b>PULSE START METAL HALIDE</b>		
MH 70-3B <sup>13</sup>	For double-ended MH lamps with HX-HPF ballasts: 70 watt (M85), 100 watt (M91), and 150 watt (M81)	27
MH 100-3A	For MH lamps with HX-HPF ballasts: 35/39w(M130), 50w(M110), 70w(M98), 100w(M90/M140), and 150w(M102/M142)	25
MH 150-1A	For 150 watt (M102/M142) lamp with CWA ballast	28
MH 200-1B <sup>13</sup>	For double-ended MH 250 watt (M80) lamp	28
MH 350-1A	For MH lamps with CWA ballasts: 175 watt (M152/M137), 200 watt (M136), 250 watt (M153/M138), 320 watt (M154/M132), 350 watt (M131), 400 watt (M155/M135), and 450 watt (M144)	24
P 750-1B <sup>13</sup>	For 750 watt (M149) MH lamp	28
HPS 1000-4B <sup>13</sup>	For MH lamps: 875 watt (M166) and 1000 watt (M141). It is also used for 1000W HPS lamps	28
<b>HIGH PRESSURE SODIUM</b>		
HPS 150-3A	For HPS lamps of 150 watt or less with HX-HPF ballast, except 150 watt S56 lamp	24
HPS 400-3A	For HPS lamps from 200 to 400 watts and 150 watt S56 lamp with CWA ballasts	25
HPS 450-1B <sup>13</sup>	For 150 watt S56, 200, 250 or 400 watt lamps with 240 volt/60 Hz reactor ballasts. With attached mounting bracket.	28
HPS 460-1B <sup>13</sup>	For 200, 250 and 400 watt lamps with HX-HPF ballasts and 50 Hz reactor ballasts. With attached mounting bracket.	28
HPS 600-1B	For 600 watt lamps.	28
HPS 610-1B	For 600 watt lamps.	27
HPS 1000-4B <sup>13</sup>	For 1000 watt HPS and Pulse Start Metal Halide lamps. With attached mounting bracket.	27
HPS 1000-6B <sup>13</sup>	Obsolete	27
<b>PLUG REPLACEABLE IGNITOR</b>		
<b>PULSE START METAL HALIDE</b>		
MH 150-G15	For MH lamps with HX-HPF ballasts: 35/39 watt (M130), 50 watt (M110), 70 watt (M98), 100 watt (M90/M140), and 150 watt (M102/M142)	32
MH 350-G05	For MH lamps with CWA ballasts: 175 watt (M152/M137), 200 watt (M136), 250 watt (M153/M138), 320 watt (M154/M132), 350 watt (M131), 400 watt (M155/M135), and 450 watt (M144)	32
<b>HIGH PRESSURE SODIUM</b>		
HPS 150-G01	For HPS lamps of 150 watt or less with HX-HPF ballast, except 150 watt S56 lamp	32
HPS 400-G05	For HPS lamps from 200 to 400 watts and 150 watt S56 lamp with CWA ballasts	32
<b>INSTANT RESTRIKE IGNITORS</b>		
<b>HIGH PRESSURE SODIUM</b>		
HPS 150-5B <sup>13</sup>	Instant Restrike Ignitor — for lamps of 150 watts or less except 150 watt S56. Ignitor has attached mounting bracket.	30
<b>LONG DISTANCE IGNITORS</b>		
<b>PULSE START METAL HALIDE</b>		
MH 100-5A	For MH lamps from 35 to 50 watts. Max Ballast to Lamp Distance ( $\approx 20'$ )	25
MH 100-4A	For MH lamps from 70 to 150 watts. Max Ballast to Lamp Distance ( $\approx 30'$ )	25
MH UNV-5B	For MH lamps from 35 to 450 watts. Ignitor incorporates automatic resetting thermal protection. Max Ballast to Lamp Distance ( $\approx 50'$ )	25
<b>HIGH PRESSURE SODIUM</b>		
HPS 150-4A	For HPS lamps of 150 watt or less, except 150 watt S56 lamp. Max Ballast to Lamp Distance ( $\approx 20'$ )	24
HPS 400-4A	For HPS lamps from 200 to 400 watts and 150 watt S56 lamp. Max Ballast to Lamp Distance ( $\approx 25'$ )	25
HPS 1000-5B	For 1000 watt HPS lamps. Ignitor incorporates automatic resetting thermal protection. Max Ballast to Lamp Distance ( $\approx 50'$ )	25
<b>AUTOMATIC SHUTOFF IGNITORS</b>		
<b>PULSE START METAL HALIDE</b>		
MH 100-35B <sup>13</sup>	For MH lamps: 35/39 watt (M130), 50 watt (M110), 70 watt (M98), 100 watt (M90/M140), and 150 watt (M102/M142). With attached mounting bracket	28
MH 150-35B <sup>13</sup>	For 150 watt M81 lamp with CWA ballasts. With attached mounting bracket.	31
MH 350-15B <sup>13</sup>	For MH lamps: 175 watt (M152/M137), 200 watt (M136), 250 watt (M153/M138), 320 watt (M154/M132), 350 watt (M131), 400 watt (M155/M135), and 450 watt (M144)	31
P 750-15B <sup>13</sup>	For 750 watt (M149) MH lamp	31
HPS 1000-55B <sup>13</sup>	For MH lamps: 875 watt (M166) and 1000 watt (M141). It is also used for 1000W HPS lamps	31
<b>HIGH PRESSURE SODIUM</b>		
HPS 150-45B <sup>13</sup>	For lamps of 150 watts or less except 150 watt S56. With attached mounting bracket.	28
HPS 400-45B <sup>13</sup>	For lamps from 200 to 400 watts and 150 watt S56 with constant wattage autotransformer ballasts. With attached mounting bracket.	28
HPS 1000-55B <sup>13</sup>	For 1000 watt HPS and Pulse Start Metal Halide lamps. With attached mounting bracket.	31
<b>AUTOMATIC SHUTOFF DEVICES</b>		
In addition to one-piece shutoff ignitors, automatic shutoff devices are available as separate components for use with the ignitors below.		
SA-55	HPS 150-3A, HPS 150-5B	25
SA-100	MH70-3B, MH100-3A, MH150-1A, MH350-1A, HPS150-4A, HPS400-3A, HPS600-1B	25
SA-250	HPS1000-4B ignitor, only with 1000 watt HPS ballasts	33

IGNITORS

Lamp Watts	ANSI Code	Circuit Type	Standard Ignitors	Auto Shutoff	Instant Restrike	Long Distance Ignitors
HIGH PRESSURE SODIUM IGNITORS						
35	S76	Reactor	HPS 150-3A	HPS 150-45B	HPS 150-5B	HPS 150-4A
50	S68	Reactor, HX	HPS 150-3A	HPS 150-45B	HPS 150-5B	HPS 150-4A
70	S62	Reactor, HX	HPS 150-3A	HPS 150-45B	HPS 150-5B	HPS 150-4A
100	S54	Reactor, HX	HPS 150-3A	HPS 150-45B	HPS 150-5B	HPS 150-4A
150	S55	Reactor, HX	HPS 150-3A	HPS 150-45B	HPS 150-5B	HPS 150-4A
150	S56	CWA	HPS 400-3A	HPS 400-45B	—	HPS 400-4A
250	S50	Reactor	HPS 450-1B	HPS 400-45B	—	HPS 400-4A
250	S50	CWA	HPS 400-3A	HPS 400-45B	—	HPS 400-4A
250	S50	HX	HPS 460-1B	HPS 400-45B	—	HPS 400-4A
400	S51	Reactor	HPS 450-1B	HPS 400-45B	—	HPS 400-4A
400	S51	CWA	HPS 400-3A	HPS 400-45B	—	HPS 400-4A
400	S51	HX	HPS 460-1B	HPS 400-45B	—	HPS 400-4A
600	S106	CWA	HPS 600-1B	—	—	—
600	S106	Reactor	HPS 610-1B	—	—	—
1000	S52	CWA	HPS 1000-4B	HPS 1000-55B	—	—

STANDARD IGNITORS

Standard Ignitors are supplied with all Universal High Pressure Sodium and Metal Halide ballasts requiring ignitors. These ballasts are supplied with an appropriate external ignitor unless the ignitor is permanently attached to or built into the ballast.

INSTANT RESTRIKE IGNITORS

An Instant Restrike Ignitor generates multiple pulses to restrike a lamp arc after a brief power interruption has extinguished it, without the typical 3-minute cool-down time. A Standard Ignitor cannot restrike an arc until the lamp has had time to sufficiently cool. Even though an Instant Restrike Ignitor can reinitiate the lamp arc immediately upon restoration of power, the lamp is still subject to warmup. The following chart is based on an S55 lamp.

Time Lamp Is Extinguished	Restrike Time	Light Output On Reignition	Lamp Warmup Time
1 second	2 seconds	87%	35 seconds
5 seconds	Instant	83%	70 seconds
15 seconds	Instant	76%	130 seconds
30 seconds	Instant	62%	190 seconds
1 minute	Instant	46%	255 seconds
Cold Start	Instant	36%	360 seconds

PLUG REPLACEABLE IGNITORS

Incorporates terminals and a separate mounting base to simplify construction and replacement.

Lamp Watts	ANSI Code	Circuit Type	Standard Ignitors	Auto Shutoff	Long Distance Ignitors
METAL HALIDE IGNITORS					
35	M130	Reactor	MH 100-3A	—	MH 100-5A
50	M110	HX	MH 100-3A	—	MH 100-5A
70	M85	HX	MH 70-3B	MH 70-35B	MH 100-5A
70	M98	HX	MH 100-3A	MH 100-35B	MH 100-5A
100	M90	Reactor	MH 100-3A	MH 100-35B	MH 100-5A
100	M90	CWA	MH 100-3A	MH 100-35B	MH 100-5A
100	M91	HX	MH 70-3B	—	—
150	M81	HX	MH 70-3B	—	—
150	M81	CWA	MH 150-35B	MH 150-35B	—
150	M102	HX	MH 100-3A	MH 100-35B	MH 100-5A
350	M131	Reactor	MH 70-3B	—	—
350	M131	HX	MH 70-3B	—	—

LONG DISTANCE IGNITORS

Long Distance Ignitors are used in situations where a ignitor must be mounted further from the lamp than is recommended for a standard ignitor. The maximum lamp to ignitor distance for these ignitors is 50 feet, which may vary depending on the type of lamp, ballast, fixture, and wiring.

AUTOMATIC SHUTOFF IGNITORS

In the event of a lamp failure, a Standard Ignitor will continue to pulse, trying to start the lamp. This may reduce the life of the ignitor. An Automatic Shutoff Ignitor will apply pulses for 10 to 12 minutes and then deactivate if a lamp arc cannot be initiated. Resetting the ignitor is accomplished by momentarily interrupting the power to the ballast. For this reason, these ignitors are not recommended for use on unswitched circuits.

SHUTOFF DEVICES

Ignitor Accessory (IA) devices can be used to convert a Standard Ignitor into an Automatic Shutoff Ignitor. Simply match the Shutoff Device catalog number on page 5-62 with the Standard Ignitor that is supplied with the ballast. Using the IA device with the Standard Ignitor eliminates the need to buy a separate Automatic Shutoff Ignitor.

TEMPERATURE RATING

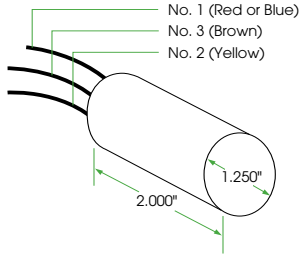
Most ignitors are rated for a 105°C maximum case temperature. Consult ballast specification sheets at [www.unvlt.com](http://www.unvlt.com) for specific details.

# REFERENCE DRAWINGS

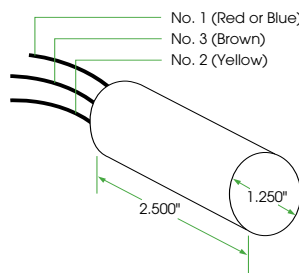
All dimensions in decimals.  
All lead lengths: 13 inches  $\pm$ 1

IGNITORS

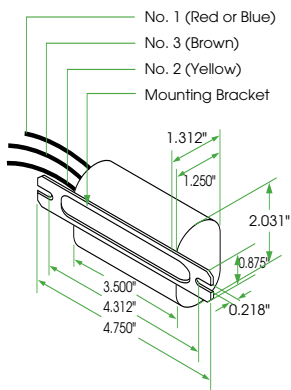
Ref. Drawing 24



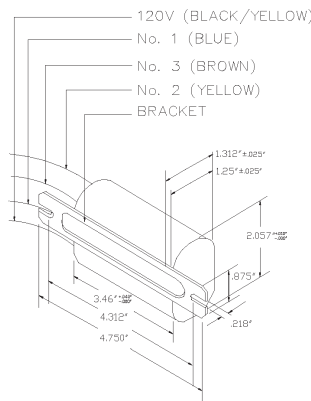
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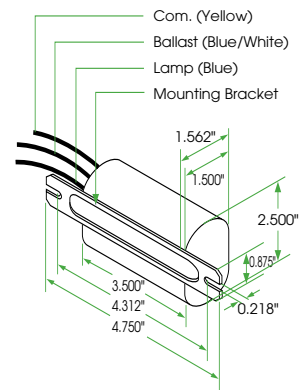
Ref. Drawing 27



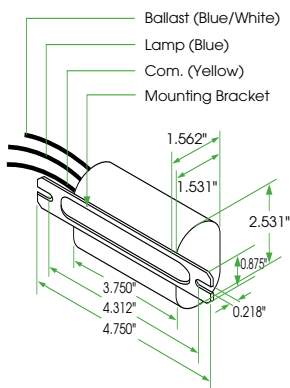
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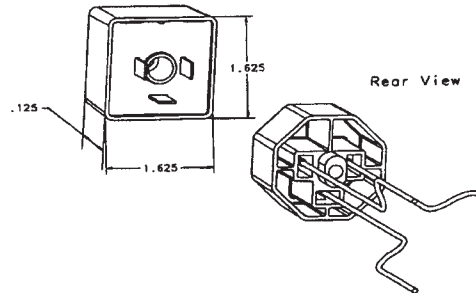
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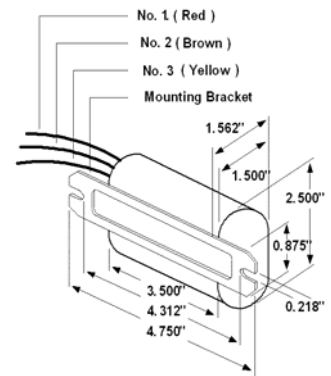
Ref. Drawing 31



Ref. Drawing 32



Ref. Drawing 33



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IGNITORS