As leading designers and builders of underwater lights, Hydrel offers a special insight into the complex demands of providing efficient, durable lighting for fountains and other water effects.

Every Hydrel fixture is fashioned from superior materials, and the most advanced photometrics are incorporated into its design. Rigorous programs of quality control and final testing build in that extra dimension of performance and reliability that has been the hallmark of Hydrel units for over 50 years.

In short, we produce no ordinary fixtures.
Hydrel offers the widest line of high quality

Underwater fixtures for every application

Hydrel offers the widest and most varied line of underwater fixtures in the industry, including niche and base mounted lights for fountains and reflecting pools, special fixtures for wet/dry applications, and swimming pool lights. These reliable lights are available in a variety of lamp choices and are complemented by a line of accessories and electrical equipment.

All products are designed for easy installation and servicing. All meet the National Electric Code under Article 680, and are also listed by Underwriters Laboratories and NEMKO (IEC 598) for CE Label.

This catalog presents Hydrel’s complete line of underwater lights. Application and Installation information is also included.
underwater fixtures in the industry

Reflection Pool and Fountain Pool lights
Hydrel’s extensive line of fountain and reflecting pool lights, in niche and base mounted styles, accommodates a wide variety of installations and water effects. In addition to a standard range of lamp options, Hydrel has pioneered the underwater use of the quartz halogen lamp, providing a light that is especially flattering to many water effects.

All fountain and reflection pool lights are designed with a temperature sensing, low water cut-off (LWC) feature to guard against overheating.

Swimming Pool lights
Swimming pool lights require special safeguards, which are incorporated into the versatile line of Hydrel fixtures designed specifically for commercial and residential swimming pools. These fixtures meet Hydrel’s high standards for quality construction and styling as well as the rigid safety requirements for swimming pools.

Wet/Dry lights
The Hydrel line of wet/dry lights is designed especially for use in areas of water features that are prone to being dry or could possibly be dry much of the time. These versatile fixtures can operate totally submerged but, unlike other underwater lights, do not depend upon water for cooling and therefore continue to operate even when water levels are low. This feature makes the wet/dry fixtures ideal for use on the edges of waterfalls, streams, or fountains and in installations with a fluctuation in water level.
Niche and base mounted styles accommodate a wide variety of installations and water effects. Base mounted models are free-standing. Yoke mounted models are designed for stud or mounting bolts. Wet niche types are available in floor and wall mount models.

Hydrel reflection pool and fountain pool lights are built to meet or surpass Underwriter Laboratories standards, as well as those of the National Electric Code and NEMKO, per standard IEC598. They meet the safety requirements for fountains and decorative pools. Reflection pool and fountain pool lighting fixtures are not intended for use in swimming pools. Additional safeguards are required for swimming pool lighting.
4428 - Metal Halide Fountain Light

This 175 Watt Metal Halide Fountain Light, the first HID underwater light in the industry, delivers the equivalent light output of a 1000 Watt quartz halogen lamp while consuming only one-fifth the power and attaining 2 1/2 times longer lamp life.

One-fifth the Power
Industry’s first 175 Watt Metal Halide pool light provides light output equivalent to a 1000 Watt incandescent lamp but uses only one-fifth the power.

Over Two Times the Life
175 Watt HID lamp provides 10,000 hours of operation compared to 4,000 hours for a 1000 Watt quartz halogen lamp.

- Metal Halide ballast encapsulated and contained in fixture.
- Heavy wall cast bronze construction.
- Tempered borosilicate clear lens and silicone gaskets.
- Three reflectors - a 7° spot, a medium flood, and a wall wash to cover most applications.
- 7° spot produces 60,000 candelas.
- Improved color - more light in blue region of the spectrum.
- Wet/Dry listed - submersion not required for safe operation.
- Lockable tilt-standard.
- Minimum of 10 feet of 16-3 STW submersible cord provided. Cord length must be specified.
- Lamp included.
- Also available as a niche mounted swimming pool or fountain light.
Model 4428

DESCRIPTION

These heavy duty cast bronze underwater metal halide fixtures are the first of their kind for use in fountains, reflecting pools, and illuminating waterfalls. These units are designed to accept an E-17, 175 Watt metal halide lamp. The integral ballast is completely sealed and encapsulated in a custom epoxy designed for this use. This unit yields a lamp life of up to 10,000 hours of operation, which exceeds any other fixture designed for fountain lighting.

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Heavy wall cast bronze construction. Natural cast bronze finish.

FIXTURE BASE: Cast bronze with 23° adjustable mechanical tilt.

LAMP: 175 Watt only, E-17 medium base (ANSI M57), Metal Halide. (Lamp included).

SOCKET: Pulse rated medium base with nickel-plated copper screwshell and 200° C leads.

VOLTAGE: 120 Volt only.

DISTRIBUTION: Choice of Spot, Flood, or Wall Wash light distributions.

BALLAST: High power factor CWA core & coil ballast encapsulated into the fixture housing.

LENS: 83/8” diameter flat clear tempered glass, standard. Optional 5° linear spread lens.

GASKET: Single piece molded U-shaped silicone.

CORD: Minimum of 10’ of #16-3 STW submersible cord. Cord entrance is epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

FASTENERS: Stainless steel.

ACCESSORIES: Internal Source Shield, Wall Wash Louver, Internal Honeycomb Louver, Color Filters.

LISTING: U.L.

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<th>Lamp</th>
<th>Voltage</th>
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<th>Mounting</th>
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<td>175M</td>
<td>120</td>
<td>SP/FL/WWD</td>
<td>FLC/FLS</td>
<td>BM</td>
<td>ISS</td>
<td>CSL</td>
<td>LP</td>
</tr>
</tbody>
</table>

Dimensions shown in inches and millimeters.

1. Available in 175W Metal Halide only
2. Available in 120V only
3. Only one accessory per fixture
Model 4427

DESCRIPTION

The 4427 is a heavy-duty, all cast bronze, 1000 Watt quartz halogen fixture for fountain or water effect applications. Yoke mount model accepts 3/8” diameter stud or mounting bolt. Base mount model includes 12” diameter cast bronze base with provisions for floor anchor bolts. Unit is capable of up to 180° of vertical adjustment. Rock guard is standard on both yoke and base mount models.

SPECIFICATIONS

FIXTURE HOUSING AND ROCK GUARD: Heavy wall cast bronze construction. Natural bronze finish.

LAMP: 120 Volt, PAR 64, 1000 Watt max., Quartz Halogen. (Lamp included).

SOCKET: Mogul end prong type with 200°C insulated leads.

LENS: 83/8” diameter convex clear tempered heat resistant glass. Amber, blue, green, and red lenses also available.


CORD: Minimum of 10’ of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L., CSA

BASE MOUNT YOKE MOUNT

Dimensions shown in inches and millimeters.
Model 4424

DESCRIPTION

The 4424 is a heavy-duty, cast bronze fixture suitable for fountain or water effect applications. 120 Volt model accepts a 500 Watt PAR 56 quartz halogen lamp or a 300 Watt PAR 56 incandescent lamp. 12 Volt model accepts a PAR 56 screw terminal lamp to 300 Watts max. Yoke mount model accepts 3/8” diameter stud or mounting bolt. Base mount model includes 12” diameter cast bronze base with provisions for floor anchor bolts. Unit is capable of up to 180° of vertical adjustment. Rock guard is standard on both yoke and base mount models.

(Now includes Model 4422)

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Heavy wall cast bronze construction. Natural bronze finish.


SOCKET: 120 Volt: Mogul end prong with 200°C insulated leads. 12 Volt: Screw terminal.

LENS: 83/8” diameter convex clear tempered heat resistant glass. Amber, blue, green, or red lenses also available.


CORD: Minimum of 10’ of #10-3 STW for US standard, 3m HO7RN-F-2x4mm2 for European standard submersible cord for 12 Volt fixtures. Minimum of 10’ of #16-3 STW for US standard submersible cord for 120 Volt fixtures. Cord entrance is brass, water-tight seal and epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L., CSA, CE, CB, NEMKO
## Model 4421

**DESCRIPTION**

The 4421 series is ideal for shallow pool installations. Designed for the 120 Volt T-4 mini-can quartz halogen lamp to 500 Watt max. It is compact in size with an overall height of 8 3/8”. The standard unit employs a medium-angle flood pattern reflector of chrome plated spun copper.

**SPECIFICATIONS**

**FIXTURE HOUSING AND DOOR:** Heavy wall cast bronze construction. Natural bronze finish.

**LAMP:** 120 Volt, T-4 mini-can, 500 Watt max. (Lamp included).

**SOCKET:** Mini-can base type with 200°C insulated leads.

**DISTRIBUTION:** Reflector is parabolic chrome plated spun copper.

**LENS:** 7 9/16 diam. convex clear tempered heat resistant glass. Amber, blue, green, and red lenses available.

**GASKET:** Single-piece molded U-shaped silicone.

**CORD:** Minimum of 10' of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified.

**FACTORY LEAK TESTED:** All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

**LOW WATER CUT-OFF:** Temperature sensing Low Water Cutoff standard.

**FASTENERS:** Stainless steel.

**LISTING:** U.L., CSA

### Specifications Table

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<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Lens</th>
<th>Mounting Acc.</th>
<th>Cord Set Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>4421</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>CLC</td>
<td>3 Adjustable Locking Base</td>
<td>10 – 120' of cord available in 5 increments</td>
</tr>
<tr>
<td>4422</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>CLG</td>
<td>3 Adjustable Locking Base</td>
<td>10 – 120' of cord available in 5 increments</td>
</tr>
<tr>
<td>4423</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>CLR</td>
<td>3 Adjustable Locking Base</td>
<td>10 – 120' of cord available in 5 increments</td>
</tr>
<tr>
<td>4424</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>CLB</td>
<td>3 Adjustable Locking Base</td>
<td>10 – 120' of cord available in 5 increments</td>
</tr>
<tr>
<td>4425</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>CLA</td>
<td>3 Adjustable Locking Base</td>
<td>10 – 120' of cord available in 5 increments</td>
</tr>
</tbody>
</table>

1. 500Q - default
2. CLC - default
3. Mount Accessories w/ base mount only
4. RSR6 - default

Dimensions shown in inches and millimeters.
Model 4413

DESCRIPTION

The 4413 low profile fountain light is a preferred option among the line of Hydrel’s quartz halogen underwater lighting fixtures. This high performance fixture meets the fountain requirements for high light output, low profile, and adjustability with Hydrel’s AIM-Lock™ System. The unit is capable of 360° of rotational and 90° from vertical adjustment. Rock guard is integral.

(Now includes Model 4444)

SPECIFICATIONS

FIXTURE HOUSING, ROCK GUARD, AND BASE: Heavy wall cast bronze construction. Natural bronze finish.

ADJUSTABILITY: Four mounting heights, 360° rotational and 0°-90° from vertical adjustment. AIM-Lock™ enables fixture to be relamped without changing aim setting.

LAMP: 120 Volt, 400 Watt max. RSC double ended Quartz Halogen (maximum overall length of 31/8”); 500 Watt max., T4 Mini-can, Quartz Halogen. (Lamp included).

SOCKET: Two porcelain recessed single contact (RSC) or porcelain with nickel mini-can screwshell (MC), 200°C leads.

DISTRIBUTION: Reflector is polished aluminum specular Alzak®. Spot or diffuse Alzak® Flood.

LENS: Flat tempered borosilicate - clear. Amber, green, or red lenses also available.


CORD: Minimum of 10' of 6-3 STW submersible cord. Cord entrance is epoxy encapsulated with internal strain relief. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L., CSA

<table>
<thead>
<tr>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Distribution</th>
<th>Lens</th>
<th>Mounting</th>
<th>Cord Set Length</th>
<th>Lamp Options</th>
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<tbody>
<tr>
<td>4413</td>
<td>120V</td>
<td>SP Spot</td>
<td>FLC</td>
<td>BM Base Mount</td>
<td>10' - 120' in 5' increments</td>
<td>Included CSA</td>
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<tr>
<td>120Q</td>
<td>T4 Mini-can</td>
<td>Flat Lens Clear</td>
<td>FLAM</td>
<td>CSL</td>
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<tr>
<td>150Q</td>
<td>T4 Mini-can</td>
<td>Flat Lens Amber</td>
<td>FLM</td>
<td>CSL</td>
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<td>150QT3</td>
<td>T3 R7S</td>
<td>Flat Lens Green</td>
<td>FLM</td>
<td>CSL</td>
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<td>200QT3</td>
<td>T4 Mini-can</td>
<td>Flat Lens Red</td>
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<td>CSL</td>
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<td>300QT4</td>
<td>T4 R7S</td>
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<td>400QT5</td>
<td>T4 R7S</td>
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<td>FLM</td>
<td>CSL</td>
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<td>500Q</td>
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<td></td>
<td>FLM</td>
<td>CSL</td>
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</table>

Dimensions shown in inches and millimeters.
Model 4411

DESCRIPTION

The 4411 fountain light is an added result of Hydrel’s development of quartz halogen underwater lighting. This high performance fixture meets the fountain requirements for high light output, low-profile, and adjustability. The cast bronze base, with riser, can be specified to maximum mounting height of 24”. The unit utilizes a quartz halogen, T-4 Mini-can lamp to 250 Watts and a spot distribution. Rock guard is integral.

SPECIFICATIONS

FIXTURE HOUSING, INTEGRAL ROCK GUARD AND BASE:
Heavy wall cast bronze construction. Natural bronze finish.

REFLECTOR:
Polished aluminum specular Alzak®

ADJUSTABILITY:
Height adjustable. Rotational adjustment 0-90°. fixture removed for re-lamping via single pull pin.

LAMP:
120 Volt, T-4 mini-can, 100, 150, or 250 Watt Quartz Halogen. (Lamp included).

SOCKET:
Porcelain with nickel mini-can screwshell, 200°C insulated leads.

LENS:
Flat clear tempered borosilicate.

GASKET:
Single-piece molded U-shaped silicone.

CORD:
Minimum of 10' of #16-3 STW underwater cable. Cord entrance is epoxy encapsulated with external strain relief. Cord length must be specified.

FACTORY LEAK TESTED:
All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF:
Temperature sensing Low Water Cut-off standard.

FASTENERS:
Stainless steel.

LISTING:
U.L., CSA

<table>
<thead>
<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Mounting</th>
<th>Mounting Accessories</th>
<th>Cord Set Length</th>
<th>Lamp</th>
<th>Options</th>
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<td>4411</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>8M</td>
<td>RSR 2' 24' Riser Stem available in 5' increments</td>
<td>CSL 10' - 120' of cord available in 5' increments</td>
<td>LPI Lamp Included</td>
<td>CSA Canadian Standard Assoc.</td>
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Dimensions shown in inches and millimeters.
Model 4418

DESCRIPTION

The 4418 heavy-duty cast bronze underwater fixture is ideal for use in small fountains, waterfalls, or reflection pools. It is designed for medium base PAR 38 incandescent lamps. Yoke mount model accepts 3/8” diameter stud or mounting bolt. Base mount model includes 97/8” diameter cast bronze base. Unit is capable of up to 180° of vertical adjustment. Rock guard is standard on both yoke and base mount models.

SPECIFICATIONS

FIXTURE HOUSING AND ROCK GUARD: Heavy wall cast bronze construction. Natural bronze finish.

LAMP: 120 Volt, PAR38, 100, 150 or 250 Watt Incandescent. (Lamp included).

SOCKET: Porcelain medium screw base with nickel plated copper shell, 200°C insulated leads.

LENS: 61/2” diameter, clear tempered heat resistant glass. Amber, blue, green, and red lenses also available.


CORD: Minimum of 10’ of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

ACCESSORIES: Adjustable Locking Base, Riser Stems.

LISTING: U.L., CSA

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BASE MOUNT

Dimensions shown in inches and millimeters.
Model 4412

DESCRIPTION
The decorative 4412 fountain light offers both vertical and horizontal mounting and uses 120 Volt, 116 Watt or 12 Volt, 50 Watt low voltage incandescent lamps. It is provided with a patterned cast bronze leaf for light source concealment.

SPECIFICATIONS


SOCKET: Porcelain medium screw base with nickel plated copper shell, 200°C insulated leads.

LENS: Heat resistant clear glass globe.

GASKET: Two-piece molded silicone.

CORD: Minimum of 10’ of #16-3 STW submersible cord for U.S. standard. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L.

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<tr>
<th>Model</th>
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<th>Voltage</th>
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<th>Lamp</th>
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<td>A-21 Med.</td>
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<tr>
<td>50LV</td>
<td>A-21 Med.</td>
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<td></td>
<td>in 5’ increments</td>
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</tr>
</tbody>
</table>

1 Transformer not included, sold separately
2 CSL60 is max. cord length for 12V fixtures

Dimensions shown in inches and millimeters.
Model 4410

DESCRIPTION
The 4410 all cast bronze fixture is compact and offers complete angular adjustability. This fixture is designed for use with a PAR 36, 12 Volt lamp to 50 Watts. Yoke mount model accepts 3/8” diameter stud or mounting bolt. Base mount model includes brass staff and 8” diameter cast bronze base with provisions for floor anchor bolts. Unit is capable of up to 180° of vertical adjustment. Rock guard is standard on both yoke and base mount models. (Lamp included).

SPECIFICATIONS
FIXTURE HOUSING AND ROCK GUARD: Heavy wall cast bronze construction. Natural bronze finish.
LAMP: 12 Volt, PAR 36 sealed beam, flood or spot distribution 50 Watt incandescent. (Lamp included).
SOCKET: Screw terminals with 200°C insulated leads.
LENS: Lamp face forms lens.
CORD: Minimum of 10’ of #16–3 STW submersible cord. Cord entrance is epoxy encapsulated. Cord length must be specified.
FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.
LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.
FASTENERS: Stainless steel.
ACCESSORIES: Amber, blue, green, or red color filters available.
LISTING: U.L.
**Model 4800**

**DESCRIPTION**

The 4800 Series base or yoke mounted fixture is smaller in size than conventional units and can operate in as little as 10" of water. It uses 120 Volt, 100 Watt or 150 Watt quartz halogen lamps or a 12 Volt, 75 Watt MR-16 quartz halogen lamp. Rock guard is standard. (Lamp included).

(Formerly Models 4846, 4847, 4848)

**SPECIFICATIONS**

**FIXTURE HOUSING AND ROCK GUARD:** Stainless steel housing with heavy wall cast bronze rock guard door assembly. Yoke and base are heavy wall cast bronze.

**LAMP:** 120 Volt: T-4, 150 Watt max., Quartz Halogen. 12 Volt: MR-16, 75 Watt max., Quartz Halogen. (Lamp included).

**SOCKET:** 120 Volt: Mini-can, screw base. 12 Volt: bipin GX5.3.

**LENS:** 3 1/8" diameter, flat clear tempered borosilicate. Clear fresnel spread, amber, blue, green, and red lenses also available. Colored lenses are not fresnel.

**GASKET:** Single-piece molded U-shaped silicone.

**CORD:** Minimum of 10' of #16-3 STW submersible cord for U.S. standard, 3m of HO7RN-F-2x4mm2 for European standard. Cord entrance is epoxy encapsulated. Cord length must be specified.

**FACTORY LEAK TESTED:** All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

**LOW WATER CUT-OFF:** Temperature sensing Low Water Cut-off standard.

**FASTENERS:** Stainless steel.

**LISTING:** U.L., CSA, CE, CB, NEMKO

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**TABLE:**

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<th>Model</th>
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<th>Voltage</th>
<th>Distribution</th>
<th>Lamp</th>
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<th>Cord Set Length</th>
<th>Lamp Installed</th>
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<td>FL Flooded</td>
<td>CLF</td>
<td>BM Base Mount</td>
<td>50' - 120' of cord available in 5' increments</td>
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<td></td>
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<td></td>
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<td>CLC</td>
<td>YW Yoke Mount</td>
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<td></td>
<td>CLR</td>
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</table>

1. Other wattages available by request
2. Transformer not included, sold separately
3. Dist. included on 12V only
4. CLC available
5. CLB and CLG not available on 150Q
6. CE required for floor mounted fixtures
7. CSL50 max. cord length for 12V
8. Available in 12V only

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**Dimensions shown in inches and millimeters.**
Model 4409

DESCRIPTION
The 4409 compact, heavy-duty cast bronze fountain light is ideal for up-lighting small water-effect features. It utilizes a low voltage quartz halogen bi-pin lamp to 100 Watts. 120 Volt fixtures include integral, dimmable transformer.

SPECIFICATIONS

FIXTURE HOUSING, ROCK GUARD, AND BASE: Heavy wall cast bronze construction. Natural bronze finish.

LAMP: 12 Volt, 100 Watt max., T-3, bi-pin Halogen. (Lamp included).


TRANSFORMER: 120 Volt to12 Volt integral, dimmable, electronic, fully encapsulated. 12 Volt fixtures require transformer, sold separately

LENS: Borosilicate tempered glass.


FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

ACCESSORIES: Amber, blue, green, or red color filters available.

LISTING: U.L., CUL

Dimensions shown in inches and millimeters.
Model 4415

DESCRIPTION

The 4415 Fountain and Reflecting Pool light is a versatile light source offering a low profile and wide range of lamping options. Small, 12 Volt wet/dry fixture that uses three MR-16, 75 Watt max. quartz lamps. It is available in both 120 Volt and 12 Volt.

SPECIFICATIONS

FIXTURE HOUSING, ROCK GUARD, AND BASE: Heavy wall construction. Natural bronze finish.

LAMP: 120 Volt: A21, 116 Volt. max. incandescent or 300W max. T-3 Quartz. 12 Volt: (3) MR-16, 75 Watt max., Quartz Halogen. (Lamps included).

SOCKETS: Incandescent: medium base. Quartz: RSC single contact base, MR16-GX5.3, Bi-pin.

LENS: Tempered heat borosilicate diffused glass.


CORD: Minimum of 10' of #10-3 ST for US standard, 3m HO7RN-F-2x4mm² for European standard submersible cord for 120 Volt fixtures. Minimum of 10' of #16-3 ST for US standard submersible cord for 12 Volt fixtures. Cord entrance is brass, water-tight seal and epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

ACCESSORIES: Adjustable Locking Base, Riser Stems.

FINISH: Black heat-dissipating Hender Lube on the body, door, and yoke base assembly.

LISTING: U.L.

<table>
<thead>
<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Distr.</th>
<th>Mounting</th>
<th>Mounthing Acc.</th>
<th>Cord Set Length</th>
</tr>
</thead>
<tbody>
<tr>
<td>4415</td>
<td>116 116W A21 Med. 120 120W T-3 RSC</td>
<td>10' 254 5 137</td>
<td>FL Flood BM Base Mount ALB Adjustable Locking Base RSR* 4'-24' Riser Stem available in 12' increments</td>
<td>50' max. cord length for 12V fixtures</td>
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<td></td>
</tr>
</tbody>
</table>

Dimensions shown in inches and millimeters.
REFLECTION POOL AND FOUNTAIN POOL LIGHTS

photos copyright © Hydrel
Model 4426 LED RGB Color Changing

DESCRIPTION
The 4426 Base Mount is designed for use in fountains, reflecting pools, and illuminating waterfalls. This unit uses a Red, Green, and Blue (RGB) underwater color balanced LED array to create DMX controlled color changing lighting effects. Color control is achieved through four channels per fixture, standard DMX512 hardware, at a maximum of 44 frames per second. All channels have logarithmic power for finer color and intensity control. The fourth channel, Intensity, allows the user to vary brightness without affecting the color. The integral power supply and DMX control modules are enclosed in an attached sealed bronze combination box. The proprietary DMX control module senses the LED temperature and adjusts the LED power accordingly to yield a lamp life of up to 50,000 hours of operation. This lamp life exceeds any other fixture designed for this use. For power and signal hook-up, the integral combination box includes a minimum of 10' of submersible rated power cable and a minimum of 10' of submersible rated DMX signal cable.

SPECIFICATIONS
FIXTURE HOUSING, ROCK GUARD, AND BASE: Heavy wall construction. Natural bronze finish.

LED TYPE: 60 Watt RGB LED array. (LED Board included).

CONTROL: Standard DMX512. 3-Channels per fixture: Red, Blue, Green or 4-channels per fixture: Red, Green, Blue and Intensity.

COMMUNICATION TO FIXTURE: DMX512 direct.

VOLTAGE: 120VAC 60HZ only.

LENS: Clear Flat Tempered Borosilicate.

GASKET: Single piece molded U-shaped silicone gasket.

CORD: Minimum of 10’ of #16/3ST submersible rated cord for standard 120VAC line, minimum of 25’ of submersible rated data cord for DMX512 signal. Cord entrance is epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: Fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER PROTECTION: Temperature sensing circuit reduces power to LEDs to prevent damage.

FASTENERS: Stainless steel.

LISTING: U.L.

<table>
<thead>
<tr>
<th>Model</th>
<th>Material</th>
<th>LED Type</th>
<th>LED Color</th>
<th>Voltage</th>
<th>Distribution</th>
<th>Lens</th>
<th>Mounting</th>
<th>Control</th>
<th>Comm. to Fixture</th>
<th>Cord Set Length</th>
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<tr>
<td>4426</td>
<td>Bronze</td>
<td>60WLED</td>
<td>RGB</td>
<td>120VAC</td>
<td>3SP</td>
<td>FLC</td>
<td>BM</td>
<td>3-Channel DMX512</td>
<td>Direct DMX</td>
<td>10' - 120' of</td>
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</tbody>
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Dimensons shown in inches and millimeters.
Model 4426 LED Monochromatic

DESCRIPTION
The 4426 Base Mount is designed for use in fountains, reflecting pools, and illuminating waterfalls. These units offer cool white, warm white, amber, blue, cyan, green, royal blue and red monochromatic colors. The system shall be composed of two components: 1) LED array board and 2) Driver. The LED Driver powers via constant voltage or constant current. With a constant current driver, LED lumen output does not change with temperature variations. Hydrel’s monochromatic system is a non-dimming, one color light output.

SPECIFICATIONS

FIXTURE HOUSING, ROCK GUARD, AND BASE: Heavy wall cast bronze construction. Natural cast bronze finish.

LED TYPE: 60 Watt monochromatic LED. (LED Board included).

LAMP: 120VAC 60HZ only.

LENS: Clear Flat Tempered Borosilicate.

GASKET: Single piece molded U-shaped silicone gasket.

CORD: Minimum of 10’ of #16/3ST submersible rated cord for standard 120VAC line. Cord entrance is epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: Fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER PROTECTION: Temperature sensing circuit reduces power to LEDs to prevent damage.

FASTENERS: Stainless steel.

LISTING: U.L.
Model 4424

DESCRIPTION
This heavy-duty cast bronze fixture, with stainless steel formed niche is designed for wet niche installation in floors or walls of fountain pools. It is available in 120 Volt to 500 Watts and 12 Volt to 300 Watts. Fixture is provided with clear tempered lens, silicone gasket, submersible cord, and water-tight brass cord entrance. Fixture is positively locked in niche housing, provided with cast bronze mounting ring, conduit entrance, and grounding lug.

(Now includes Model 4422)

SPECIFICATIONS

FIXTURE HOUSING, DOOR AND ELECTRO GRID: Heavy wall cast bronze construction. Natural bronze finish.

NICHE: Stainless steel with cast bronze mounting ring, which locks the fixture into position. Four ears are included for tie to forms or steel structural rods. Pressure grounding lug on interior and exterior surfaces. Conduit entrance 3/4” NPT with 3/4” x 1/2” NPT reducer bushing supplied.

LAMP: 120 Volt: PAR56, 500 Watt max. 12 Volt: PAR56, 300 Watt max. (Lamp included).

SOCKET: 120 Volt: Mogul prong type with 200°C insulated leads. 12 Volt: Terminal connectors with 200°C insulated leads.

LENS: 8 3/8” diameter convex clear heat resistant glass. Amber, blue, green, and red lenses also available.


CORD: Minimum of 35’ of #10-3 STW for US standard, 10m H07RN-F-2x6mm2 for European standard submersible cord for 12V fixtures. Minimum of 35’ of #16-3 STW for US standard submersible cord for 120V fixtures. Cord entrance is brass, water-tight seal and epoxy encapsulated. Cord length must be specified. Suitable cord should be coiled in the fixture niche to allow for the removal of fixture to above water level for relamping.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

ACCESSORIES: Cast bronze exterior Rock Guard available. Rock Guard required for floor mounted fixtures.

LISTING: U.L., CSA, CE, CB, NEMKO

Dimensions shown in inches and millimeters.
Model 4421

**DESCRIPTION**

The 4421 is a wet niche mounted 500 Watt max. quartz halogen fixture. This unit is designed for installation in floors or walls of fountain pools or water effects.

**SPECIFICATIONS**

**FIXTURE HOUSING AND DOOR:** Heavy wall cast bronze construction. Natural bronze finish.

**NICHE:** Stainless steel with cast bronze mounting ring with provision for positive locking of fixture in position and four ears for tying to forms or steel structural rods. Pressure grounding lug on interior and exterior surfaces. Conduit entrance 3/4”NPT with 3/4”x1/2” NPT reducer.

**LAMP:** 120 Volt, T-4 mini-can, 100, 150, 250, 400, or 500 Watt Quartz Halogen. (Lamp included).

**SOCKET:** Mini-can screw base with 200°C insulated leads.

Distribution: Reflector is parabolic spun copper, chrome plated.

**LENS:** 7 9/16” diameter convex clear tempered heat resistant glass. Amber, blue, green, and red lenses also available.

**GASKET:** Single-piece molded U-shaped silicone.

**CORD:** Minimum of 35’ of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

**FACTORY LEAK TESTED:** All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

**LOW WATER CUT-OFF:** Temperature sensing Low Water Cut-off standard.

**FASTENERS:** Stainless steel.

**ACCESSORIES:** Cast bronze exterior Rock Guard available. Rock Guard required for floor mounted fixtures.

**LISTING:** U.L., CSA

---

<table>
<thead>
<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Lens</th>
<th>Mounting</th>
<th>Conduit Entries</th>
<th>Accessories</th>
<th>Cord Set Length</th>
<th>Lamp Options</th>
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<tbody>
<tr>
<td>4421</td>
<td>T4</td>
<td>120</td>
<td>CLC</td>
<td>NickeL Mt</td>
<td>3/4 NPT bottom</td>
<td>Rock Guard</td>
<td>35’ - 120’ of</td>
<td>CSA, LPI, LMP</td>
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<tr>
<td>35Q</td>
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<td>CSA</td>
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<td>CLB</td>
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<td>50Q</td>
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<td>Micronc</td>
<td></td>
<td></td>
<td></td>
<td>CSA</td>
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</table>

Dimensions shown in inches and millimeters.
**Model 4413**

**DESCRIPTION**

The 4413 wet niche light is a preferred option among the line of Hydrel’s quartz halogen underwater lighting fixtures. This high performance fixture meets the fountain requirements for high light output, low profile, and adjustability with Hydrel’s AIM-Lock™ System. The unit utilizes a quartz halogen lamp to 500 Watts with a choice of two light distributions and is capable of up to 360° of rotational and 45° from vertical adjustment. Rock guard is integral.

(Now includes Model 4414)

**SPECIFICATIONS**

**FIXTURE HOUSING AND ROCK GUARD:** Heavy wall cast bronze construction. Natural bronze finish.

**NICHE:** Spun copper with cast bronze niche ring. 3/4” conduit hubs are available in the bottom at 45°, or in the side with 3/4” x 1/2” NPT reducer. Hub in bottom standard. Pressure grounding lug on interior and exterior surfaces.

**ADJUSTABILITY:** 360° angular adjustment, 45° from vertical. AIM-Lock™ enables fixture to be relamped without changing aim setting.

**LAMP:** 120 Volt, 400 Watt max. RSC double ended Quartz Halogen (maximum overall length of 31/8”); 500 Watt max., T4 Mini-can, Quartz Halogen. (Lamp included).

**SOCKET:** Two porcelain recessed single contact (RSC), porcelain with nickel mini-can screwshell (MC), 200°C leads.

**DISTRIBUTION:** Reflector is polished aluminum specular Alzak®. Spot or Diffuse Alzak® Flood available.

**LENS:** Flat tempered borosilicate-clear. Amber, green, or red lenses also available.

**GASKET:** Single-piece molded U-shaped silicone.

**CORD:** Minimum of 35’ of #16-3 STW submersible cord. Cord entrance is epoxy encapsulated with internal strain relief. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

**FACTORY LEAK TESTED:** All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

**LOW WATER CUT-OFF:** Temperature sensing Low Water Cut-off standard.

Fasteners: Stainless steel.

**LISTING:** U.L., CSA

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<table>
<thead>
<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Distr.</th>
<th>Lens</th>
<th>Mounting</th>
<th>Conduit Entries</th>
<th>Cord Set Length</th>
<th>Lamp Options</th>
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<tbody>
<tr>
<td>4413</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>SP</td>
<td>FLC</td>
<td>MH Niche Mount</td>
<td>348” 34” NPT</td>
<td>35’ - 120’ of</td>
<td>Included</td>
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<tr>
<td>180Q</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>SP</td>
<td>FLC</td>
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<tr>
<td>1500T3</td>
<td>T3 875</td>
<td>120</td>
<td>FL</td>
<td>FLAM</td>
<td>MH Niche Mount</td>
<td>348” 34” NPT</td>
<td>35’ - 120’ of</td>
<td>Included</td>
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<td>2000T3</td>
<td>T3 875</td>
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<td>FL</td>
<td>FLAM</td>
<td>MH Niche Mount</td>
<td>348” 34” NPT</td>
<td>35’ - 120’ of</td>
<td>Included</td>
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<td>2500</td>
<td>T4 Mini-can</td>
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<td>SP</td>
<td>FLC</td>
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<td>3000T4</td>
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<td>FL</td>
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<td>FL</td>
<td>FLAM</td>
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<td>35’ - 120’ of</td>
<td>Included</td>
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<tr>
<td>5000</td>
<td>T4 Mini-can</td>
<td>120</td>
<td>SP</td>
<td>FLC</td>
<td>MH Niche Mount</td>
<td>348” 34” NPT</td>
<td>35’ - 120’ of</td>
<td>Included</td>
</tr>
</tbody>
</table>

Dimensions shown in inches and millimeters.
Model 4415

DESCRIPTION

The 4415 is a small wet niche mounted fixture. Its rectangular shape is ideal for steps or small reflecting pools where a low profile is required. It is available with a 45° cut-off louver or rock guard.

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Heavy wall cast bronze construction. Natural bronze finish.

NICHE: Stainless steel with cast bronze mounting frame, which has provisions for positive locking of fixture in position. Side conduit entrance 3/4” NPT with 3/4”x1/2” NPT reducer bushing or PG16 provided. Pressure grounding lug on interior and exterior surfaces.

LAMP: 120 Volt: A-2116 Watt max., incandescent or 300 Watt max., T-3, Quartz Halogen double ended. 12 Volt: (3) 75 Watt max., MR-16. (Lamp included).

SOCKETS: Incandescent: medium base. Quartz: RSC single contact base. MR16: Gx5.3 Bi-Pin.

LENS: Tempered borosilicate diffused glass standard. Clear glass with LLV accessory.


CORD: 120 Volt: Minimum of 35' of #16-3 STW U.S. standard submersible cord. 12 Volt: Minimum of 35' of #10-3 STW U.S. standard or 10m of HO7RN-F-2x6mm2 for European standard submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing low water cut-off standard.

FASTENERS: Stainless steel.

ACCESSORIES: Cast bronze exterior Rock Guard available. 45° cut-off cast bronze louver door available (clear lens only). Rock Guard or Louver is required for floor mounted fixtures.

LISTING: U.L., IEC.
Model 4418

DESCRIPTION

The 4418 wet niche, heavy-duty cast bronze underwater fixture is ideal for use in walls or floors of small fountains, waterfalls, or reflection pools. Designed for medium base 120 Volt PAR 38 incandescent lamps. Adjustable niche mount also available.

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Heavy wall cast bronze construction. Natural bronze finish.

NICHE: Stainless steel with cast bronze mounting frame, which has provisions for positive locking of fixture in position. Four ears for tying to forms or steel structural rods. Pressure grounding lug on interior and exterior surfaces. Conduit entrance 3/4”NPT with 3/4”x1/2” NPT reducer bushing supplied. The adjustable niche mount fixture is capable of 360° rotation with 30° vertical tilt.

LAMP: 120 Volt, PAR 38, 250 Watt max., Incandescent. (Lamp included).

SOCKET: Medium screw base with nickel plated copper shell, 200°C insulated leads.

LENS: 6 1/2” diameter convex clear heat resistant glass. Amber, blue, green, and red lenses also available.


CORD: Minimum of 35’ of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

ACCESSORIES: Cast bronze exterior Rock Guard. Rock Guard required on adjustable niche mount and floor-mounted fixtures.

LISTING: U.L.
**Model 4800**

**DESCRIPTION**

The 4800 Series wet niche mounted fountain fixture is smaller in size than conventional units. It is available with adjustable round or fixed square bezel and uses 120 Volt, 150 Watt max., T-4 mini-can or 12 Volt, 75 Watt max., MR16 quartz halogen lamp. The stainless steel niche includes a bonding lug and conduit hub. A clear fresnel tempered lens is standard. (Lamp included).

(Formerly Models 4842, 4843, 4845, 4839, 4840)

**SPECIFICATIONS**

**FIXTURE HOUSING AND DOOR:** Stainless steel housing with heavy wall cast bronze doors.

**NICHE:** Stainless steel with cast bronze mounting assembly, which has provisions for positive locking of fixture in position. The unit includes a grounding lug and a 3/4" conduit hub with 1/2" reducer or PG16 conduit hub.

**LAMP:** 120 Volt: T-4, 150 Watt max., Quartz Halogen. 12 Volt: MR-16 75 Watt max., Quartz Halogen. (Lamp included).

**SOCKET:** 120 Volt, Mini-can, screw base. 12 Volt: bipin mount GX5.3.

**LENS:** 31/8" diameter tempered borosilicate, clear convex standard. Clear fresnel, amber, blue, green, and red lenses also available. Blue or green lens 100 Watt max.

**GASKET:** Single-piece molded U-shaped silicone.

**CORD:** Minimum of 35' of #16-3 STW submersible cord for U.S. standard, 10m of H07RN-F-2x4mm2 for European standard. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

**FACTORY LEAK TESTED:** All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

**LOW WATER CUT-OFF:** Temperature sensing Low Water Cut-off standard.

**FASTENERS:** Stainless Steel.

**ACCESSORIES:** Cast bronze exterior Rock Guard available. Rock guard is required for floor mounted fixtures.

**LISTING:** U.L., CSA, CE, CB, NEMKO

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**Options**

<table>
<thead>
<tr>
<th>Model</th>
<th>Door</th>
<th>Material</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Distribution</th>
<th>Lens</th>
<th>Mounting</th>
<th>Conduit Entries</th>
<th>Accessories</th>
<th>Cord Set Length</th>
<th>Lamp</th>
<th>Options</th>
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<tbody>
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<td>SS</td>
<td>Incandescent</td>
<td>120</td>
<td>FL</td>
<td>CLF</td>
<td>RM</td>
<td>340B 3/4&quot; NPT or 45°</td>
<td>FL</td>
<td>120</td>
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<td>SQ</td>
<td>SS</td>
<td>Mini-can</td>
<td>12V</td>
<td>Flood</td>
<td>CLC</td>
<td>RM</td>
<td>340B 3/4&quot; NPT or 45°</td>
<td>FL</td>
<td>120</td>
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<td>U.L.</td>
</tr>
</tbody>
</table>

1. RD door adjustable, SQ door fixed
2. SS material not available with Rock Guard
3. Other wattages available by request
4. Transformer not included, sold separately
5. Dist. included on 12V only
6. CLC default
7. CLB and CLG not available w/ 150Q
8. RG required for floor mounted fixtures
9. CSLD0 max. cord length for 12V

Dimensions shown in inches and millimeters.
WET/DRY LIGHTS

The Hydrel line of wet/dry lights is designed especially for use in areas of water features that are prone to being dry or could possibly be dry much of the time. These versatile fixtures can operate totally submerged but, unlike other underwater lights, are not dependent upon water for cooling and therefore can continue to operate even when water levels are low or non-existent. This feature makes the wet/dry fixtures ideal for use on the edges of waterfalls, streams, or fountains and in installations with a fluctuation in water level.

Hydrel wet/dry lights are built to meet or surpass Underwriters Laboratories standards as well as those of the National Electric Code. They meet the safety requirements for fountains and decorative pools. Wet/dry lighting fixtures are not intended for use in swimming pools. Additional safeguards are required for swimming pool lighting.

Photo left:
A major attraction at a popular Las Vegas hotel uses wet/dry lights in a dramatic scene

photo copyright © Hydrel
Model WD4418

DESCRIPTION

The WD4418 wet/dry heavy-duty cast bronze fixture is ideal for use in small fountains, waterfalls, or reflection pools. It is designed for medium base PAR 38 incandescent or quartz halogen lamps. Yoke mount model accepts 3/8” diameter stud or mounting bolt. Base mount model includes 97/8” diameter cast bronze base. Unit is capable of up to 180° of vertical adjustment. Rock guard is standard on both yoke and base mount models.

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Heavy wall cast bronze construction. Natural bronze finish.

LAMP: 120 Volt, medium screw base, PAR38, 150 Watt max. (Lamp included).

SOCKET: Porcelain medium screw base with nickel plated copper shell, 200°C insulated leads.

LENS: 61/2” diameter convex clear tempered heat resistant glass.


CORD: Minimum 10’ of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

FASTENERS: Stainless steel.

ACCESSORIES: Adjustable Locking Base, Riser Stems.

LISTING: U.L.

<table>
<thead>
<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Distribution</th>
<th>Mounting</th>
<th>Mounting Acc.</th>
<th>Cord Set Length</th>
<th>Lamp</th>
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<td>P38100I PAR38 Med.</td>
<td>120</td>
<td>SP</td>
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<td>ALB</td>
<td>10’ - 120’ of cord available in 5’ increments</td>
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<td>P38120I PAR38 Med.</td>
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<td>P38150I PAR38 Med.</td>
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<td>Yoke Mount</td>
<td>ALB</td>
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Dimensions shown in inches and millimeters.
Model WD4412

DESCRIPTION
The decorative WD4412 wet/dry light offers both vertical and horizontal mounting and uses incandescent lamps to 16 Watts or 12 Volt, to 50 Watt max. It is provided with a patterned cast bronze lily pad leaf for light source concealment.

SPECIFICATIONS


LAMP: 120 Volt: A19 or A21, 16 Watt max. 12 Volt: A21, 50 Watt max. (Lamp included).

SOCKET: Porcelain medium screw base with nickel plated copper shell, 200°C insulated leads.

Lens: Heat resistant clear glass globe.

GASKET: Two-piece molded silicone.

CORD: Minimum of 10' of #16-3 STW submersible cord with ground wire positively grounded inside fixture. Cord entrance is a brass watertight seal and epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L.

<table>
<thead>
<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Mounting</th>
<th>Cord Set Length</th>
<th>Lamp</th>
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<td>Incandescent</td>
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<td>HBM Horizontal Base Mount</td>
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<td></td>
<td>12</td>
<td>VBM Vertical Base Mount</td>
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</tbody>
</table>

Dimensions shown in inches and millimeters.

1 Transformer not included, sold separately
2 250 is max. cord length for 12V fixtures
Model WD4413

DESCRIPTION

The WD4413 wet/dry fountain light is a preferred option among the line of Hydrel’s quartz halogen underwater lighting fixtures. This high performance fixture meets the fountain requirements for high light output, low profile, and adjustability with Hydrel’s AIM-Lock™ System. The unit utilizes a 120 Volt quartz halogen lamp to 100 Watt max. or 50 Watt max. MR16, with a choice of two light distributions and is capable of up to 360° of rotational and 45° from vertical adjustment.

SPECIFICATIONS

FIXTURE HOUSING, INTEGRAL ROCK GUARD DOOR, AND BASE: Heavy wall cast bronze construction. Natural bronze finish.

NICHE: Spun copper with cast bronze niche ring. 3/4” conduit hubs are available in the bottom at 45°, or in the side with 3/4” x 1/2” NPT reducer. Hub on bottom standard. Pressure grounding lug on interior and exterior surfaces.

ADJUSTABILITY: BM: Four mounting heights, adjustable 0°–90°. NM: 360° rotational adjustment within niche, 45° from vertical adjustment. AIM-Lock™ enables fixture to be relamped without changing aim setting.

LAMP: 120 Volt: 100 Watt max., T-4 Mini-can, Quartz Halogen. 12 Volt: 50 Watt max., MR-16. (Lamp included).

SOCKET: 120 Volt: Porcelain with nickel mini-can screwshell, 200°C insulated leads. 12 Volt: Bi-pin GX5.3.

DISTRIBUTION: Reflector is polished aluminum specular Alzak™ Spot or diffuse Alzak™ Flood for T4 lamps. MR16 lamp distribution is determined by lamp type.

LENS: Flat clear tempered borosilicate.


CORD: Minimum of 10’ of #16-3 STW underwater cable on base mount or minimum of 35’ on niche mount. Cord entrance is epoxy encapsulated with internal strain relief. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

FASTENERS: Stainless steel.

LISTING: U.L.
**Model WD4415**

**DESCRIPTION**

The WD4415 is a small, 12 Volt wet/dry fixture that uses three MR-16, 75 Watt max. quartz lamps. It is ideal for use in or near water applications that are prone to being dry or could possibly be dry much of the time. It is available with a 45° cut-off louver. Rock guard is standard.

**SPECIFICATIONS**

**FIXTURE HOUSING, ROCK GUARD, AND BASE:** Heavy wall construction.

**LAMP:** (3) 12 Volt, MR-16, Quartz Halogen, 75 Watt max. (Lamps included).

**SOCKETS:** (3)-GX 5.3, Bi-pin.

**LENS:** Tempered heat resistant clear glass.

**GASKET:** Single-piece molded U-shaped silicone.

**CORD:** Minimum 10' of #10-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified.

**FACTORY LEAK TESTED:** All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

**FASTENERS:** Stainless steel.

**ACCESSORIES:** Adjustable Locking Base, Riser Stems

**FINISH:** Black heat-dissipating Hender Lube on the body, door, and yoke base assembly.

**LISTING:** U.L.

---

**Table 1:**

<table>
<thead>
<tr>
<th>Model</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Distr.</th>
<th>Mounting Acc.</th>
<th>Mounting Acc. 2</th>
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<td>3/M20</td>
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<td>3/M50</td>
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<td>Yoke</td>
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**Table 2:**

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<th>Lamp Type</th>
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<th>Distr.</th>
<th>Mounting</th>
<th>Mounting Acc. 2</th>
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</thead>
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<td>3/M20</td>
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<td>3/M50</td>
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<td>Yoke</td>
<td>ALB</td>
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<tr>
<td>3/M75</td>
<td>320V</td>
<td>FL</td>
<td>Yoke</td>
<td>ALB</td>
</tr>
</tbody>
</table>

**Diagram:**

 Dimensions shown in inches and millimeters.
Model WD4846

DESCRIPTION

The WD4846 yoke and base mounted fixtures are ideal for small fountain and reflective pools. Designed for MR-16 lamp, 12 Volt bi-pin mount, 50 Watt max. The lamp housing is stainless steel with cast bronze door with a clear tempered borosilicate lens standard. Lamp included.

SPECIFICATIONS

FIXTURE HOUSING, DOOR AND ROCK GUARD: Stainless steel construction with cast bronze doors and rock guard. Yoke and base are sand cast bronze.

LAMP: 12 Volt, MR-16, EYC, 50 Watt, Quartz Halogen. (Lamp included).

SOCKET: Bi-pin GX5.3.

LENS: 3\(\frac{1}{8}\)” diameter tempered borosilicate, clear standard. Fresnel spread lens also available.


CORD: Minimum 10’ of #16-3 STW submersible cord. Cord entrance is epoxy encapsulated. Cord length must be specified.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

FASTENERS: Stainless steel.

LISTING: U.L.
WD9000 Series - Wet / Dry In-grade Lights

The Hydrel Wet/Dry 9000 Series provides state-of-the-art performance in the world’s first in-grade wet/dry fixtures.

The Wet/Dry 9000 Series reflects the unique blend of innovation and experience that is the hallmark of Hydrel lighting and provides in-grade fixtures that can withstand the harshest environments.

Modular design, precision reflectors, optically active lenses, polymer rough-in section, watertight connectors, dry air purge, and underwater seals, combine to achieve outstanding fixtures applicable to a wide range of water feature installations. Installation is greatly facilitated by a design that allows pre-installation of the rough-in section with the addition of the critical lighting components later.

Presealed watertight modules prevent condensation and assure watertight sealing during lamp replacement. Efficient lamps combined with Hydrel’s precision reflectors provide optimum performance and a wide choice of dramatic lighting effects not available in typical wet/dry lights.

The wall of a well known park in Kentucky borders a lake and is illuminated by 9000 Series wet/dry up-lights providing a beautiful nighttime entrance.
Model WD9100
Model WD9150

DESCRIPTION
The WD 9100 Series wet/dry up-lights represent the state-of-the-art in flush up-light construction. These multipurpose modular units are designed for mounting in areas that are prone to being submerged in water or could possibly be wet much of the time. The lamp module, which includes the lamp, is factory sealed and thermally protected. The fixtures are available as round or square models, with or without integral junction box, and include cast bronze rock guard. Lens and reflector combinations provide a range of light distributions. Lamp is included.

SPECIFICATIONS
LAMP MODULE HOUSING, DOOR, ROUGH-IN SECTION:
Stainless steel lamp module housing, sealed and purged of all moisture to -100°F. Cast bronze door locks the lamp into the rough-in section with tamper proof fasteners. The rough-in housing is injection molded ABS, U.V. stabilized, impact and corrosion resistant.

ROCK GUARD: Heavy-duty cast bronze Rock Guard required (NEC).

LAMP: 120 Volt, T-4 Mini-can or PAR38, 250 Watt max., Incandescent. (Lamp included).

VOLTAGE: 120 Volt only.

DISTRIBUTIONS: T-4 lamps: SP-Spot reflector; MFL - Medium Flood reflector; WWD - Wall Wash reflector w/ 5° axial spread lens (FLC5). PAR38 Lamps: SP - Spot; FL - Flood.

LENS: Flat clear tempered glass standard. Convex lenses are also available.

CONDUIT ENTRIES: NM Single 1/2” or 3/4” NPT bottom opening standard. Remote junction box sold separately. BM Two 1/2” or 3/4” NPT bottom openings available in an integral cast bronze junction box. Suitable for thru-branch wiring. Box has volume of 24 cubic inches.

CORD: NM Minimum of 35’ of #16-3 STW submersible cord for connection to a remote junction box, sold separately. BM Minimum of 10’ of #16-3 STW submersible cord. Integral bronze junction box included. Cord length must be specified.

LISTING: U.L.
Dimensions shown in inches and millimeters.
Model WD9000
Model WD9050

DESCRIPTION

The WD9000 Series wet/dry up-lights represent the state-of-the-art in flush up-light construction. These multipurpose modular units are designed for mounting in areas that are prone to being submerged in water or could possibly be wet much of the time. The lamp module is factory sealed and thermally protected. The small 8” footprint of the fixture allows for placement in tight areas. The fixtures are available as round or square models, with or without integral junction box, and include cast bronze rock guard. A choice of included lamps provides a variety of light distributions.

SPECIFICATIONS

LAMP MODULE HOUSING, DOOR, ROUGH-IN SECTION:
Stainless steel lamp module housing, sealed and purged of all moisture to -100°F. Cast bronze door locks the lamp into the rough-in section with tamper proof fasteners. The rough-in housing is injection molded ABS, U.V. stabilized, impact and corrosion resistant.

ROCK GUARD: Heavy-duty cast bronze Rock Guard required (NEC).

LAMP: 120 Volt: PAR16, PAR20, and PAR30 to 75 Watt, incandescent. 12 Volt: MR-16 and PAR 36, to 75 Watt, incandescent. (Lamp included).

VOLTAGE: 120 or 12 Volt.

DISTRIBUTIONS: Beam spread by lamp type.

LENSES: Flat clear tempered glass, standard. Convex lenses are also available.

CONDUIT ENTRIES: NM Single 1/2” or 3/4” NPT bottom opening standard. Remote junction box sold separately. BM Two 1/2” or 3/4” NPT bottom openings available in an integral cast bronze junction box. Suitable for thru-branch wiring. Box has volume of 17 cubic inches.

CORD: NM Minimum of 35’ of #16-3 STW submersible cord for connection to a remote junction box, J-box sold separately. BM Minimum of 10’ of #16-3 STW submersible cord. Integral bronze junction box included. Cord length must be specified.

LISTING: U.L.
## WET / DRY LIGHTS

### WD9050
- **Model**: WD9050
- **Type**: BM
- **J-Box**: Included
- **Remote J-Box**: Sold separately
- **Model**: WD9050
- **Type**: NM
- **Remote J-Box**: Sold separately

### WD9000
- **Model**: WD9000
- **Type**: BM
- **J-Box**: Included
- **Remote J-Box**: Sold separately
- **Model**: WD9000
- **Type**: NM
- **Remote J-Box**: Sold separately

---

### Specifications

<table>
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<tr>
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<th>Voltage</th>
<th>Distribution</th>
<th>Mounting</th>
<th>Conduit Entries</th>
<th>Accessories</th>
<th>Cord Set Length</th>
<th>Lamp</th>
<th>Install</th>
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<tbody>
<tr>
<td>WD9000</td>
<td>Round</td>
<td>120V</td>
<td>8 203</td>
<td>NM</td>
<td>12B</td>
<td>H1L</td>
<td>CSL50</td>
<td>LP</td>
<td>Installed</td>
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<tr>
<td>WD9050</td>
<td>Square</td>
<td>12V</td>
<td>8 203</td>
<td>NM</td>
<td>12B</td>
<td>H1L</td>
<td>CSL50</td>
<td>LP</td>
<td>Installed</td>
</tr>
</tbody>
</table>

*Dimensions shown in inches and millimeters.*

---

1. Transformer sold separately
2. Not all distributions valid w/ all lamp types—consult lamp mtg.
3. FLR default
4. NM mounting requires remote J-Box, sold separately
5. BM mounting includes integral J-Box
6. CSL50 is max. cord length for 12V fixture

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Photo copyright ©, Hydrel
Hydrel offers an extensive line of swimming pool lighting designed to meet the most demanding requirements of commercial and competition pools, as well as those of residential installations. Both wet and dry niche units are featured and are available in line voltage and low voltage models.

Hydrel swimming pool lights are built to meet or surpass Underwriters Laboratories standards as well as those of the National Electric Code. They meet the safety requirements for swimming pool lights, which are demanding and prescribe additional safeguards.

Photo left: Hydrel underwater lights are widely used to illuminate large pools at institutions and campuses across the country and around the world.
4428 - Metal Halide Pool Light

This 175 Watt metal halide pool light, the first HID underwater light, delivers the equivalent light output of a 1000 Watt incandescent lamp while consuming only one-fifth the power and attaining 2 1/2 times longer lamp life.

One-fifth the Power
Industry’s first 175 Watt Metal Halide pool light provides light output equivalent to a 1000 Watt incandescent lamp but uses only one-fifth the power.

Over Two Times the Life
175 Watt HID lamp provides 10,000 hours of operation compared to 4,000 hours for a 1000 Watt quartz halogen lamp.

• Metal Halide ballast encapsulated and contained in fixture.
• Heavy wall cast bronze construction.
• Tempered borosilicate spread lens and silicone gaskets.
• Improved color – more light in the blue region of the spectrum.
• Temperature sensing – low water cutoff – standard.
• Retro-fits into existing, industry standard residential 500 Watt niche.
• Lamp included.
• Also available as a base mounted fountain and water feature fixture.
Model 4428 SWM

DESCRIPTION

These heavy-duty cast bronze underwater metal halide fixtures are the first of their kind for use in swimming pools. These units are designed to be recessed into a stainless steel niches as wet niche type fixtures. These units accept an E-17, 175 Watt metal halide lamp and utilize a stainless steel safety “Electro-Grid” located between the lamp and the lens. The integral ballast is completely sealed, encapsulated in a custom epoxy designed for this use. This unit yields a lamp life of up to 10,000 hours of operation.

SPECIFICATIONS

FIXTURE & DOOR: Heavy wall cast bronze construction. Natural cast bronze finish. Stainless steel door finish also available.

ELECTRO-GRID: Stainless steel welded wire.

NICHE: Stainless steel with cast bronze mounting ring with provision for positive locking of fixture in position, four ears for tying to forms or steel structural rods. Pressure grounding lug on interior and exterior surfaces. Conduit entrance 3/4" NPT with 3/4" x 1/2" NPT reducer. 4428 Wet Niche Swimming Pool Fixture can be field adjusted for installation into existing industry standard residential pool wet niche.

LAMP: E-17 medium base M-57, 175 Watt, Metal Halide (ANSI M57), 10,000 hours. Lamp included.

SOCKET: Pulse rated medium base with nickel-plated copper screwshell and 200°C leads.

VOLTAGE: 120 Volt only.

BALLAST: High Power Factor CWA core & coil ballast encapsulated into the fixture housing.

DISTRIBUTION: Asymmetrical flood with downward deflection to provide uniform lighting.

LENS: 83/8” diameter flat linear spread tempered borosilicate glass.

GASKET: Single piece molded U-shaped silicone.

CORD: Minimum of 35’ of #16-3 STW submersible cord. Cord entrance is water-tight, epoxy encapsulated. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off, standard.

Fasteners: Stainless steel.

LISTING: U.L.

<table>
<thead>
<tr>
<th>Model</th>
<th>Material</th>
<th>Lamp Type</th>
<th>Voltage</th>
<th>Lens</th>
<th>Mounting</th>
<th>Conduit Entries</th>
<th>Cord Set Length</th>
<th>Niche</th>
<th>Application</th>
<th>Lamp</th>
<th>Options</th>
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</thead>
<tbody>
<tr>
<td>4428</td>
<td>SWB</td>
<td>175W E17 M</td>
<td>120V</td>
<td>CSL</td>
<td>N/M</td>
<td>348</td>
<td>3/4” NPT bottom</td>
<td>CLS</td>
<td>Less Niche</td>
<td>SWM</td>
<td>Stainless Steel</td>
</tr>
</tbody>
</table>

1 Available only in 175W Metal Halide
2 Available in 120 Volt only.
3 Fixture can be retrofitted into other manufacturer’s niches. Consult factory
**Model 4429 SWM**

**DESCRIPTION**

The 4429 dry niche swimming pool light is designed for use in marine parks, zoos, and other aquarium installations for illumination of viewing pools. It provides the ultimate in safety, quality, styling, and construction. This fixture is accessible from outside the pool for easy relamping and maintenance.

**SPECIFICATIONS**

**FIXTURE HOUSING, DOOR AND ELECTRO-GRID:** Heavy wall cast bronze construction. Natural bronze finish.

**LAMP:**
- 120 Volt: PAR 64, 1000 Watt or PAR 56, 500 Watt max. 12 Volt: PAR 56, 300 Watt max. (Lamp included).

**SOCKET:**
- 120 Volt: Mogul end prong type with 200°C insulated leads.
- 12 Volt: Ring Terminal connectors with 200°C insulated leads.

**LENS:** Tempered heat resistant glass, 30° spread and 15° downward deflection.

**GASKET:** Single-piece molded U-shaped silicone.

**INTEGRAL JUNCTION BOX:** Two 3/4” or 1” NPT side conduit entries available for thru-branch wiring. Grounding lugs located in the junction box and one on outer surface of fixture housing.

**BACK HOUSING COVER:** Cast bronze with stand-off bosses to permit ventilation and allow for rear access and relamping.

**FASTENERS:** Stainless steel.

**LISTING:** U.L., CSA

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**Application** | **Accessories** | **Conduit Entries** | **Lamp Type Options** | **Lens** |
---|---|---|---|---|
Swimming Pool Fixtures | Tile Mask | 3/4” NPT | PAR 56 | Convex Lens Clear Swim |
| | Extended J-Box | 1” NPT | | Convex Lens Amber Swim |
| | | | | Convex Lens Blue Swim |
| | | | | Convex Lens Green Swim |
| | | | | Convex Lens Red Swim |

**Options** | **Transformer** | **Lamp Included** | **Listing** |
---|---|---|---|
| Transformer not included, sold separately | Not all distributions available w/ all lamps | CSA Canadian Standard Assoc. |

Dimensions shown in inches and millimeters.
Model 4427 SWM

DESCRIPTION

These heavy-duty cast bronze fixtures, with stainless steel forming niches are designed for wet niche installation in swimming pools. They accommodate 120 Volt PAR 64 1000 Watt quartz lamps. A cast bronze safety “Electro-Grid,” is located between the face of the lamp and the lens.

SPECIFICATIONS

FIXTURE HOUSING, DOOR AND ELECTRO-GRID: Heavy wall cast bronze construction. Natural bronze finish. Stainless steel door finish also available.

NICHE: Stainless steel with cast bronze mounting ring with provision for positive locking of fixture in position. Four ears for tying to forms or steel structural rods. Pressure grounding lug on interior and exterior surfaces. Conduit entrance 3/4” NPT with 3/4”x1/2” NPT reducer.

LAMP: 120 Volt, PAR 64, 1000 Watt max. Lamp included.

SOCKET: Mogul end prong type with 200°C insulated leads.

LENS: Tempered heat resistant glass with 30° spread and 15° downward deflection. Amber, blue, green, and red lenses also available.


CORD: Minimum of 35’ of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L., CSA.
Model 4421 SWM

DESCRIPTION

The 4421 is a compact wet niche mounted 500 Watt max. quartz halogen fixture for swimming pools. It is designed to accept the T-4 mini-can quartz lamp. The overall depth of the niche is 6”, making it ideal for installation within a shallow wall.

SPECIFICATIONS

FIXTURE HOUSING, AND DOOR: Heavy wall cast bronze construction. Stainless steel door finish also available.

NICHE: Stainless steel with cast bronze mounting ring with provision for positive locking of fixture in position. Four ears for tying to forms or steel structural rods. Pressure grounding lug on interior and exterior surfaces. Conduit entrance 3/4” NPT with 3/4”x1/2” NPT reducer.

LAMP: 120 Volt, T-4 mini-can, 500 Watt max. Quartz Halogen. Lamp included.

SOCKET: Mini-can base type with 200°C insulated leads.

DISTRIBUTION: Reflector is parabolic spun copper, chrome plated.

LENS: Heat resistant tempered glass with 30° spread and 15° downward deflection.


CORD: Minimum of 35’ of #16-3 STW submersible cord. Cord entrance is brass, watertight seal, and epoxy encapsulated. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L., CSA.

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Dimensions shown in inches and millimeters.
Model 4425 SWM

DESCRIPTION

This heavy-duty cast bronze fixture, recessed in a stainless steel forming niche, is designed for wet niche installations and accommodates 120 Volt lamps to 500 Watts and 12 Volt lamps to 300 Watts. A cast bronze safety “Electro-Grid” is located between the face of the lamp and the lens.

SPECIFICATIONS

FIXTURE HOUSING, DOOR AND ELECTRO-GRID: Heavy wall cast bronze construction. Natural bronze finish. Stainless Steel door finish is also available.

NICHE: Stainless steel with cast bronze mounting ring with provision for positive locking of fixture in position. Four ears to tie to forms or steel structural rods. Pressure grounding lug on interior and exterior surfaces. Conduit entrance 3/4” NPT with 3/4”x1/2” NPT reducer bushing supplied 1”NPT conduit entrance also available.

LAMP: 120 Volt: PAR56, 500 Watt max. 12 Volt: PAR56, 300 Watt max. (Lamp included).

SOCKET: 120 Volt: Mogul end prong with 200°C insulated leads. 12 Volt: Ring Terminal connectors with 200°C insulated leads.

LENS: Heat resistant tempered glass with 30° spread and 15° downward deflection. Amber, blue, green, and red lenses also available.


CORD: Minimum of 35’ of #10-3 STW for US standard, 10m HO7RN-F-2x6mm2 for European standard submersible cord for 12 Volt fixtures. Minimum of 35’ of #6-3 STW for US standard submersible cord for 120 Volt fixtures. Cord entrance is brass, water-tight seal and epoxy encapsulated. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless steel.

LISTING: U.L., CSA, CE, CB, NEMKO.
SWIMMING POOL LIGHTS

Model 4426 LED RGB Color Changing

DESCRIPTION
The 4426 is designed to be recessed into a stainless steel niche as a “wet niche” type fixture. These units use a Red, Green, and Blue (RGB) underwater color balanced LED array to create DMX controlled color changing lighting effects. Color control is achieved through four channels per fixture, standard DMX512 hardware, at a maximum of 44 frames per second. All channels have logarithmic power for finer color and intensity control. The fourth channel, Intensity, allows the user to vary brightness without affecting the color. The integral power and control modules are enclosed in an attached sealed combination box. The proprietary control module senses the LED temperature and adjusts the LED power accordingly to yield a lamp life of up to 50,000 hours of operation. This lamp life exceeds any other fixture designed for this use. For power and signal hook-up, the integral combination box includes a minimum of 35’ of submersible rated power cable and a minimum of 35’ of submersible rated DMX signal cable. Power and signal are distributed to the fixture via a double conduit system which terminates into standard conduit entrances at the back of the niche.

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Heavy wall cast bronze construction. Natural cast bronze finish. Stainless steel bezel finish is also available.

NICHIE: Stainless steel with cast bronze mounting ring which locks the fixture into position. Niche has four ears to tie to forms or steel structural rods. Pressure grounding lugs on interior and exterior surfaces. Niche conduit entrances are 3/4” NPT.

LED TYPE: 60 Watt RGB LED array. (LED Board included.)

CONTROL: Standard DMX512. 3-channels per fixture: Red, Green, Blue or 4-channels per fixture: Red, Green, Blue and Intensity.

COMMUNICATION TO FIXTURE: DMX512 direct.

VOLTAGE: 120VAC 60HZ only.

LENS: 8 5/8” (219mm) diameter convex linear spread tempered glass.

GASKET: Single piece molded U-shaped silicone gasket.

CORD: Minimum of 35’ of #16/3ST submersible rated cord for standard 120VAC line, minimum of 35’ of submersible rated data cord for DMX512 signal. Cord entrance is epoxy encapsulated. Cord length must be specified. NOTE: Sufficient cord should be coiled in the niche to allow for the fixture to be removed and brought above water level for maintenance.

FACTORY LEAK TESTED: Fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER PROTECTION: Temperature sensing circuit reduces power to LEDs to prevent damage.

FASTENERS: Stainless steel.

LISTING: U.L., C.U.L.

Dimensions shown in inches and millimeters.
Model 4426 LED Monochromatic

DESCRIPTION
The 4426 is designed to be recessed into a stainless steel niche as a “wet niche” type fixture. These units offer cool white, warm white, amber, blue, cyan, green, royal blue and red monochromatic colors. The system shall be composed of two components: 1) LED array board and 2) Driver. The LED Driver powers via constant voltage or constant current. With a constant current driver, LED lumen output does not change with temperature variations. Hydrel’s monochromatic system is a non-dimming, one color light output.

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Heavy wall cast bronze construction. Natural cast bronze finish. Stainless steel bezel finish is also available.

NICHE: Stainless steel with cast bronze mounting ring which locks the fixture into position. Niche has four ears to tie to forms or steel structural rods. Pressure grounding lugs on interior and exterior surfaces. Niche conduit entrances are 3/4” NPT.

LED TYPE: 60 Watt monochromatic LED. (LED Board included.)

VOLTAGE: 120VAC 60HZ only.

LENS: 8 5/8” (219mm) diameter convex linear spread tempered glass.

GASKET: Single piece molded U-shaped silicone gasket.

CORD: Minimum of 35’ of #16/3ST submersible rated cord for standard 120VAC line. Cord entrance is epoxy encapsulated. Cord length must be specified. NOTE: Sufficient cord should be coiled in the niche to allow for the fixture to be removed and brought above water level for maintenance.

FACTORY LEAK TESTED: Fixtures are tested at 10 PSI (0.70kg/cm²) internal pressure while totally submerged in water.

LOW WATER PROTECTION: Temperature sensing circuit reduces power to LEDs to prevent damage.

FASTENERS: Stainless steel.

LISTING: U.L., C.U.L.
Model 4800 SWM

DESCRIPTION

The 4800 Series wet niche mounted swimming pool light is smaller in size than conventional units. It is available with round or square bezel and uses 120 Volt, 150 Watt max., T-4 mini-can or 12 Volt, 75 Watt max., MR16 quartz halogen lamp. The stainless steel niche includes a bonding lug and conduit hub. A clear fresnel spread tempered lens is standard. Lamp included.

(Formerly Models 4842, 4843, 4845, 4838, 4839, 4840)

SPECIFICATIONS

FIXTURE HOUSING AND DOOR: Stainless steel housing with heavy wall cast bronze doors. Stainless steel door finish also available.

NICHE: Stainless steel with cast bronze mounting assembly, which has provisions for positive locking of fixture in position. The unit includes a grounding lug and a 3/4” conduit hub with 1/2” reducer or PG16 conduit hub.


SOCKET: 120 Volt: Mini-can, screw base. 12 Volt: bipin mount GX5.3.

LENS: 31/8” (80mm) diameter tempered borosilicate, clear fresnel spread standard. Clear, amber, blue, green, and red lenses also available. Colored lenses are not fresnel.


CORD: Minimum of 35’ of #16-3 STW submersible cord for U.S. standard, 10m of H07RN-F-2x4mm2 for European standard. Cord entrance is epoxy encapsulated. Cord length must be specified. Sufficient cord must be coiled in the niche to allow for the removal of the fixture to above water level for relamping.

FACTORY LEAK TESTED: All fixtures are tested at 10 PSI (0.70kg/cm2) internal pressure while totally submerged in water.

LOW WATER CUT-OFF: Temperature sensing Low Water Cut-off standard.

FASTENERS: Stainless Steel.

LISTING: U.L., CSA, CE, CB, NEMKO

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FASTENERS: Stainless Steel.

LISTING: U.L., CSA, CE, CB, NEMKO

Dimensions shown in inches and millimeters.
UNDERWATER ACCESSORIES

Underwater Accessories
Complementing their underwater lights, is Hydrel’s full line of accessories manufactured to the high standards required for underwater fountain and pool products.

Electronic Water Level and Cut-Off Controls
See Page 57-60 for installation details.

MODEL #
ELWC deck & remote mount
ELWC1 conduit mount

Colored Lenses
Green, Red, Amber, and Blue available for most fixtures.

Low Voltage Transformers
Low voltage lighting fixtures require that the line voltages be stepped down. This is normally accomplished with a transformer or series of transformers located in the pool equipment area. Hydrel offers such units in sizes from 300 to 1000 Watts.

Note: Special consideration must be given to the length of cords used with low voltage underwater fixtures.

Potting Compound
PC21 is a re-enterable potting compound which pours yellow and cures transparent so that connections are easily located. It meets NEC requirements for potting underwater junction boxes.

PC21 35 CU. IN.
PC2112 20 CU. IN.
Underwater Junction Boxes

Hydrel Underwater Junction Boxes are designed for the connection of supply cords from underwater fountain fixtures and service conduits. They feature heavy cast bronze construction, neoprene gaskets, internal ground lugs and stainless steel hardware.

All hubs may be tapped either 1/2" NPT or 3/4" NPT with other drillings available upon request. When ordering, specify the catalog number, hub location, and hub size.

Letters around perimeter indicate side drill locations. Letters within box indicate bottom drill locations.

*Outside Dim:* 4 3/4" (121) dia. x 3" (76) deep
*Inside Dim:* 3 1/2" (89) dia. x 2" (51) deep (25 cubic inches)
Cover may have single 1/2" or 3/4" hub. Bottom may also have single 1" hub.

*Outside Dim:* 3 3/8" (86) x 4 3/8" (111) x 2 1/2" (64) deep
*Inside Dim:* 3" (76) x 2" (51) deep (12 cubic inches)

*Outside Dim:* 4 3/4" (121) sq. x 2 1/2" (64) deep
*Inside Dim:* 3" (76) sq. x 2" (51) deep (18 cubic inches)

*Outside Dim:* 5 3/8" (137) sq. x 2 1/2" (64) deep
*Inside Dim:* 4" (102) sq. x 2" (51) deep (32 cubic inches)

*Outside Dim:* 7 3/8" (188) x 5 3/8" (137) deep
*Inside Dim:* 6" (153) sq. x 4" (102) deep (48 cubic inches)
Bottom may have single 1" or 1 1/4" hub.

*Outside Dim:* 7 5/8" (194) x 6 1/2" (165) x 4 7/16" (113) deep
*Inside Dim:* 5 3/8" (132) x 4 8/9" (105) x 3 11/16" (94) deep (62 cubic inches)
Bottom may have maximum three 1" hubs or two 1 1/4" hubs or one 2" hub.

*Outside Dim:* 7 5/8" (194) sq. x 4 3/4" (121) deep
*Inside Dim:* 6" (153) sq. x 4" (102) deep (144 cubic inches)

*Outside Dim:* 4 1/2" (115) dia. x 3 5/8" (93) deep
*Inside Dim:* 2 3/4" (71) dia. x 2 3/4" (58) deep (10 cubic inches)
UNDERWATER ACCESSORIES

Deck Mounted Junction Box

Specifically designed for deck or in remote wall mountings, this deck Junction Box meets all the requirements of the NEC. It features cast bronze construction, neoprene gasket, one hub at each end, and two hubs on one side. The entire bottom and one side of the box are suitable for drilling. Fasteners are stainless steel.

Note: Specify USR Strain Reliefs for the total number of fixtures. USR sold separately.

Cord Seals

Constructed of brass with neoprene grommet, these seals are for use in underwater junction boxes for fixture cord entrance seals.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>NPT</th>
<th>CORD</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>CS14302</td>
<td>1/2</td>
<td>18-3</td>
<td>7/8</td>
<td>11/2</td>
</tr>
<tr>
<td>CS143022</td>
<td>1/2</td>
<td>16-3*</td>
<td>7/8</td>
<td>11/2</td>
</tr>
<tr>
<td>CS14304</td>
<td>3/4</td>
<td>18-3</td>
<td>11/4</td>
<td>13/4</td>
</tr>
<tr>
<td>CS14303</td>
<td>3/4</td>
<td>14-3</td>
<td>11/4</td>
<td>13/4</td>
</tr>
<tr>
<td>CS143032</td>
<td>3/4</td>
<td>12-3</td>
<td>11/4</td>
<td>13/4</td>
</tr>
<tr>
<td>CS143033</td>
<td>3/4</td>
<td>10-3</td>
<td>11/4</td>
<td>13/4</td>
</tr>
</tbody>
</table>

SR Strain Relief

A threaded cord grip that prevents cord movement from pulling on connections. Used where J-box is mounted above the floor or deck.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>C (NPT)</th>
<th>CORD</th>
<th>A</th>
<th>B</th>
</tr>
</thead>
<tbody>
<tr>
<td>SR50</td>
<td>1/2</td>
<td>16-3*</td>
<td>7/8</td>
<td>13/8</td>
</tr>
<tr>
<td>SR754</td>
<td>3/4</td>
<td>18-3</td>
<td>11/4</td>
<td>11/2</td>
</tr>
<tr>
<td>SR75</td>
<td>3/4</td>
<td>10-3</td>
<td>11/4</td>
<td>11/2</td>
</tr>
</tbody>
</table>

**Note:** 18-2 / 16-1 cord fits SR50 & CS143022 parts

USR Strain Relief

Universal Strain Relief (USR) Strain Reliefs, used where J-boxes are mounted flush to floor or deck. Specify for the total number of fixtures so mounted.

ALB - Adjustable Locking Base

This fountain lighting accessory base allows for variable fixture height and includes Hydrel’s Pre-Focus Aim-Set feature. Multiple riser heights available.

<table>
<thead>
<tr>
<th>MODEL</th>
<th>A</th>
<th>B</th>
<th>C</th>
</tr>
</thead>
<tbody>
<tr>
<td>ALB15</td>
<td>10 1/2</td>
<td>12 5/8</td>
<td>8 5/8</td>
</tr>
<tr>
<td>ALB21</td>
<td>7 7/8</td>
<td>12 11</td>
<td>7</td>
</tr>
<tr>
<td>ALB22</td>
<td>7 11/16</td>
<td>12 12</td>
<td>8</td>
</tr>
<tr>
<td>ALB24</td>
<td>7 11/16</td>
<td>12 12</td>
<td>8</td>
</tr>
<tr>
<td>ALB27</td>
<td>7 11/16</td>
<td>12 12</td>
<td>8</td>
</tr>
</tbody>
</table>
INSTALLATION - SWIMMING POOLS

Wet Niche Fixture & Junction Box Installation

Hydrel fixtures are designed to meet National Electric Code (U.S.A.), Article 680 requirements. The N.E.C. requires that fixtures must be installed so that the top of the fixture is at least 18" below normal water level. The junction box shall be located at least 8" above maximum water level, pool deck, or ground, whichever is greater. The junction box shall be located not less than 4' from the perimeter of the pool, unless separated from the pool by a fence, wall or other permanent barrier. Junction boxes mounted above grade in the walkway around the pool shall be afforded additional protection by locating them in such places as under a diving board, adjacent to fixed structures, etc. Check local codes to assure compliance.

Photo left:
The orchid pool at a renowned Hawaiian hotel is illuminated by 500 Watt underwater lights.

Recommended Lighting Design

The following information will be useful in determining the lighting requirements for swimming pools.

1. Establish the lamp wattage and number of fixtures per square feet required based on the size of the pool and spacing as shown on the chart below.

2. Establish the approximate fixture wattage using the following formula:

   \[
   \text{Watts per Fixture} = \frac{\text{Pool Area} \times \text{Watts per Sq. Ft}}{\text{Number of Fixtures}}
   \]

3. Select the fixture that comes closest to meeting wattage requirements

   For in-between wattages, use next highest wattage or increase the number of fixtures.

   Using low wattage lamps will produce a more even light distribution. Increase lighting requirements when pool walls are other than white.

   The recommendations are for standard type pools.

   For special applications, consult your Hydrel representative.

<table>
<thead>
<tr>
<th>OUTDOOR* POOL</th>
<th>LAMP WATTS PER SQ. FT.</th>
<th>&quot;W&quot; = MAX. FEET</th>
<th>&quot;D&quot; = DEPTH BELOW WATER</th>
</tr>
</thead>
<tbody>
<tr>
<td>RESIDENTIAL</td>
<td>0.5 TO 1</td>
<td>--</td>
<td>18&quot;</td>
</tr>
<tr>
<td>COMMERCIAL</td>
<td>1 TO 1.5</td>
<td>16&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>COMPETITION</td>
<td>1.5 TO 2**</td>
<td>14&quot;</td>
<td>18&quot;</td>
</tr>
<tr>
<td>DIVING POOL</td>
<td>2 TO 3</td>
<td>14&quot;</td>
<td>36&quot;</td>
</tr>
</tbody>
</table>

** For indoor pools increase lighting by 25% (x 1.25)

** Never center lights in racing lanes

FOR WHITE BOTTOM POOLS

<table>
<thead>
<tr>
<th>LAMP WATTS PER SQ. FT</th>
</tr>
</thead>
<tbody>
<tr>
<td>12 VOLTS - 75 WATTS</td>
</tr>
<tr>
<td>120 VOLTS - 250 WATTS</td>
</tr>
<tr>
<td>0.15 WATTS / SQ. FT.</td>
</tr>
<tr>
<td>0.25 WATTS / SQ. FT.</td>
</tr>
<tr>
<td>0.50 WATTS / SQ. FT.</td>
</tr>
</tbody>
</table>

GROUND FAULT CIRCUIT INTERRUPTERS - (GFCI'S)

120 Volt swimming pool and fountain lights are required to be on GFCI circuits. Hydrel recommends a maximum of four lights or 1000 Watts of load per GFCI.
ELWC Electronic Level and Low Water Cut-off

The ELWC and the ELWC1 maintain water level and also protect pump and lighting equipment against overheating should water level drop below the minimum required for cooling.

The units consist of a control box and sensor housing. The ELWC is designed for deck or remote mounting with the sensor housing set in a down position. The ELWC1 is for conduit mounting with the sensor housing set in an up position.

These units are electrically connected to a remotely located control box. The sensor units monitor the pool water level by making the electrically conductive water a part of the control unit. This is accomplished with a series of three stainless steel probes which must be cut to the proper length for the specific pool. The water is maintained between the high and middle probe as the control senses the water position and activates or shuts off the water supply solenoid. The low probe is the cut-off which senses the absence of water and turns off the lighting and pump equipment.
Junction Box & Fixture Installation / Base or Yoke Mount / Fountains Only

- 2" Min. Conduit Length
- 9 Feet – Maximum Length for Exposed Cords

Junction Box & Fixture Installation / Niche Mount / Fountains Only

- Potting Compound
- USR Strain Relief
- Entrance Conduit

Underwater Junction Box / Installation Detail
Base or Yoke Mount Fixtures / Fountains Only

- Cord Seal
- Duct Seal – to keep potting compound out of conduit

Junction Box Selection Guide

<table>
<thead>
<tr>
<th>CONDUCTOR SIZE</th>
<th>REQ. SPACE IN BOX FOR EACH CONDUCTOR</th>
</tr>
</thead>
<tbody>
<tr>
<td>A.W.G.</td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>15 CU. IN.</td>
</tr>
<tr>
<td>16</td>
<td>175 CU. IN.</td>
</tr>
<tr>
<td>14</td>
<td>2.0 CU. IN.</td>
</tr>
<tr>
<td>12</td>
<td>2.25 CU. IN.</td>
</tr>
<tr>
<td>10</td>
<td>2.5 CU. IN.</td>
</tr>
<tr>
<td>8</td>
<td>3.0 CU. IN.</td>
</tr>
<tr>
<td>6</td>
<td>5.0 CU. IN.</td>
</tr>
</tbody>
</table>

Dry Niche Installation

- Fixture Housing
- Fixture Entrance accessed from rear of fixture

4800 Series / Concrete Niches

- Wire Ties to the Mounting Ears
- Trim Ring
- Allow For Finished Surface
- Brass or PVC Conduit Entry Hub at 45° Angle
- Re-Bar
Underwater Lighting Wattage Table

<table>
<thead>
<tr>
<th>DISTRIBUTION</th>
<th>H/W</th>
<th>5'</th>
<th>10'</th>
<th>15'</th>
<th>20'</th>
<th>25'</th>
<th>30'</th>
<th>35'</th>
<th>40'</th>
<th>45'</th>
<th>50'</th>
</tr>
</thead>
<tbody>
<tr>
<td>WIDE FLOOD</td>
<td>1 TO 1</td>
<td>250W</td>
<td>500W</td>
<td>1000W</td>
<td>2000W</td>
<td>3000W</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>FLOOD</td>
<td>2 TO 1</td>
<td>150W</td>
<td>300W</td>
<td>500W</td>
<td>900W</td>
<td>1000W</td>
<td>1500W</td>
<td>2000W</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>SPOT</td>
<td>Single</td>
<td>150W</td>
<td>150W</td>
<td>250W</td>
<td>300W</td>
<td>500W</td>
<td>600W</td>
<td>1000W</td>
<td>1200W</td>
<td>2000W</td>
<td>2000W</td>
</tr>
</tbody>
</table>

* H/W is height-to-width ratio of water effect
Hydrel’s low wattage, low profile fountain pool lights are ideal for lighting miniature pools and fountains.

Lighting design for commercial and residential pools are facilitated by Hydrel’s extensive line of fixtures. All Hydrel swimming pool lights are built to meet the rigid safety requirements for swimming pool lights and therefore meet or surpass U.L. standards and those of the National Electric Code.

The Hydrel line of Wet/Dry lights also include the WD9000 Series in-grade lights. These fixtures are ideal for illuminating landscape features placed close to swimming pools, fountains or reflection pools.

Hydrel’s extensive line of fountain pool lights easily accommodate any water effect installations with features varying from shallow pools to tall fountains.

Lighting effects in and on the edges of streams, ponds, lakes, or waterfalls are made possible by Hydrel’s line of Wet/Dry lights. These versatile fixtures can operate totally submerged but, unlike other underwater lights, are not dependent upon water for cooling and therefore can operate when water levels are low.

The high wattage models of Hydrel’s line of underwater lights illuminate even the largest fountains with spectacular, dependable lighting.
1000 Watt fountain lights illuminate the Volcano at a well known Las Vegas hotel.
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Model 4424 LINE & LV  9
Model 4426 LED  20
Model 4427  8
Model 4428 HID  7
Model 4800 LINE & LV  16

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Model 4421  23
Model 4424 LINE & LV  22
Model 4800 LINE & LV  27

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Hydrel reserves the right to change products without notice.
All Hydrel fixtures are U.L. Listed and must be installed in accordance with the N.E.C.