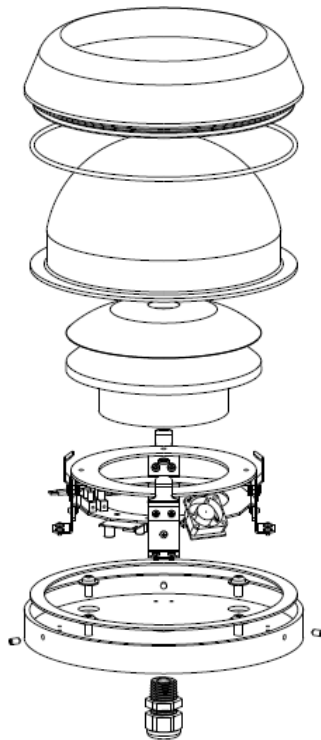


BDH-7500 TEST SUMMARY



www.MidChes.com

TESTED BY: BSI ENGINEERING TEAM



Friday, November 10, 2017

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Summary of testing

Dust Ingress:

Not tested. Unit is sealed, dust penetration is not possible.

Water Ingress Protection: Test to IP Level 7 (IPx7)

Housing did not have any water ingress during testing. Unit design passed.

IK Impact Level: Test to IK10 Requirement

The dome cover and housing was not damaged by the test. The camera will not be damaged at this level of impact.

Ingress Protection:

Level 7 test requires:

Immersion, up to 1 m depth	Ingress of water in harmful quantity shall not be possible when the enclosure is immersed in water under defined conditions of pressure and time (up to 1 m of submersion).	<p>Test duration: 30 minutes - ref IEC 60529, table 8.</p> <p>Tested with the lowest point of the enclosure 1000 mm below the surface of the water, or the highest point 150 mm below the surface, whichever is deeper.</p>
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Filled tank with water to a height of 40.75" which is equivalent to 1060 mm, which met the lowest point of enclosure to be 1000 mm below the surface of the water.

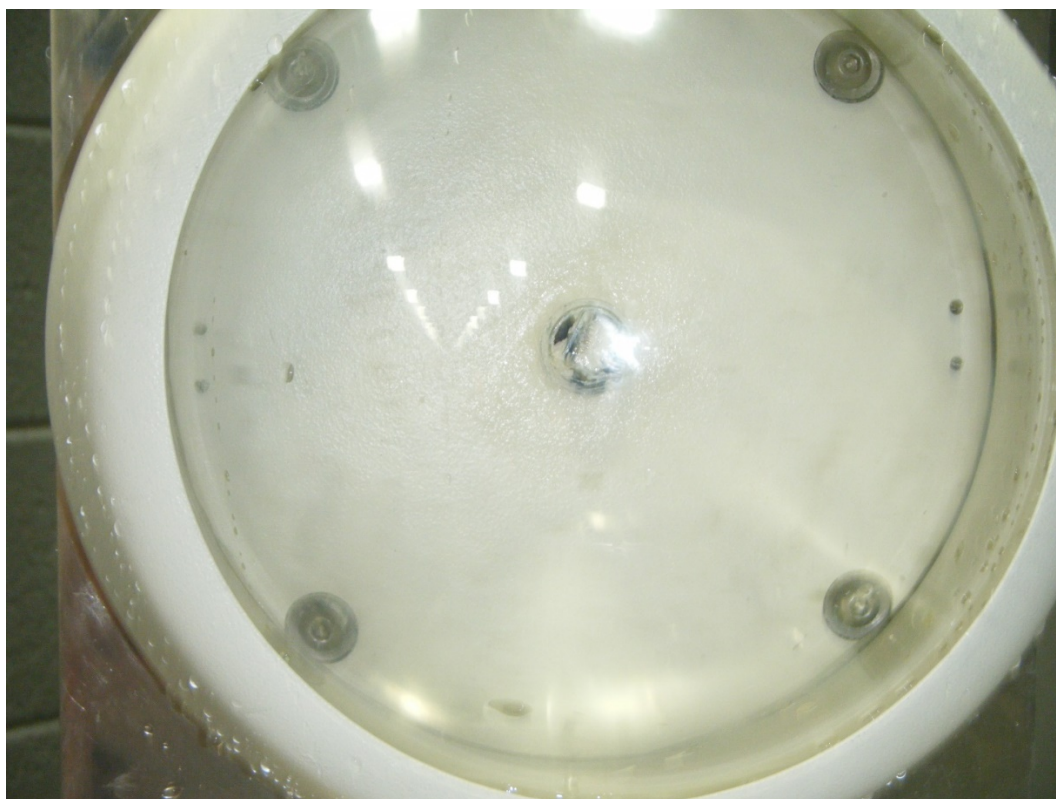
Test unit was submerged for 35 minutes from 12:28 p.m. to 1:03 p.m.

Test unit was removed from tank and examined for water ingress.

After examination, there was no water found within the housing.

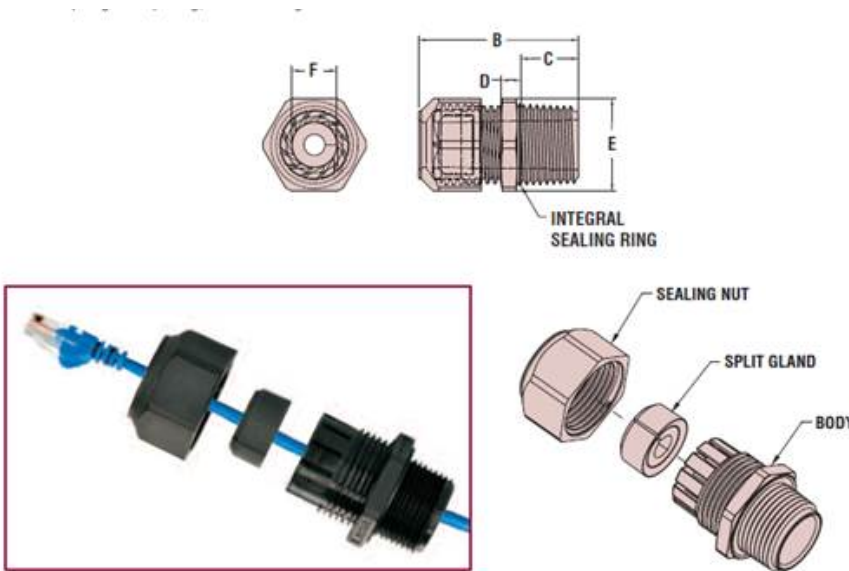


Test unit after water ingress test, no intrusion, completely dry on inside.






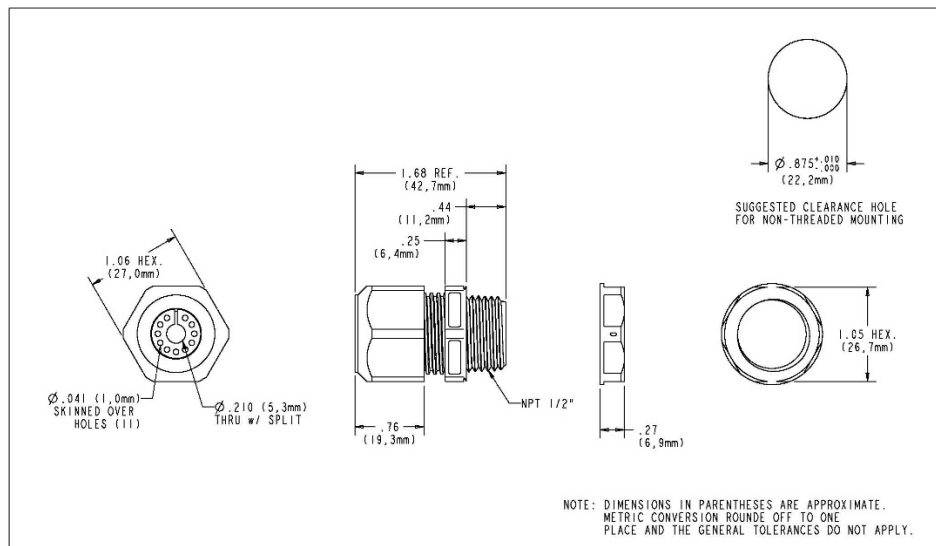
Installation and use of proper fasteners and cable sizes are required for unit to maintain rating when installed. Four mounting holes are used for the housing there are gasket washers provided to seal these four points. The cable seal rating is IP68 when used with a cable size range of 0.210" to 0.334".



- Split Glands are designed for application to the cable **after the cable has passed through the LTCG**; e.g., RJ45 cable with Cat5e termination.
- Simply pass the cable termination through the LTCG body, apply Split Gland to the cable, and insert the gland/cable assembly into the LTCG fingers. Then tighten the Sealing Nut to achieve a **liquid tight seal**.
- Approved for **NEMA 4, 4X, 6 and 6P** applications.
- For other cable/termination configuration sizes, and Pg and Metric hub threads, please consult Heyco.
- Integral Sealing Ring ensures a superior seal at the clearance or threaded mounting hole location, every time.

Material	Nylon 6/6 w/TPE Sealing Gland
Certifications	 Recognized under the Component Program of Underwriters' Laboratories File E51579 to both Canadian and U.S. Requirements Approved for NEMA 4, 4X, 6 and 6P Applications
Flammability Rating	94V-2-Consult factory for V0 material
Temperature Range	Static -40°F (-40°C) to 239°F (115°C) Dynamic -4°F (-20°C) to 212°F (100°C)
IP Rating	IP 68 (70 PSI, 5 BAR)

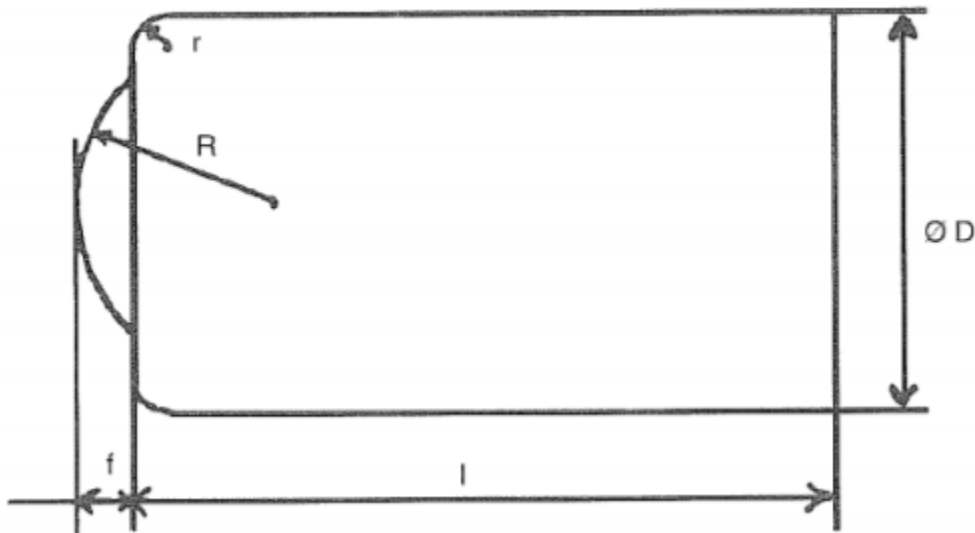
*Quick
Specs*



Impact Resistance: IK10

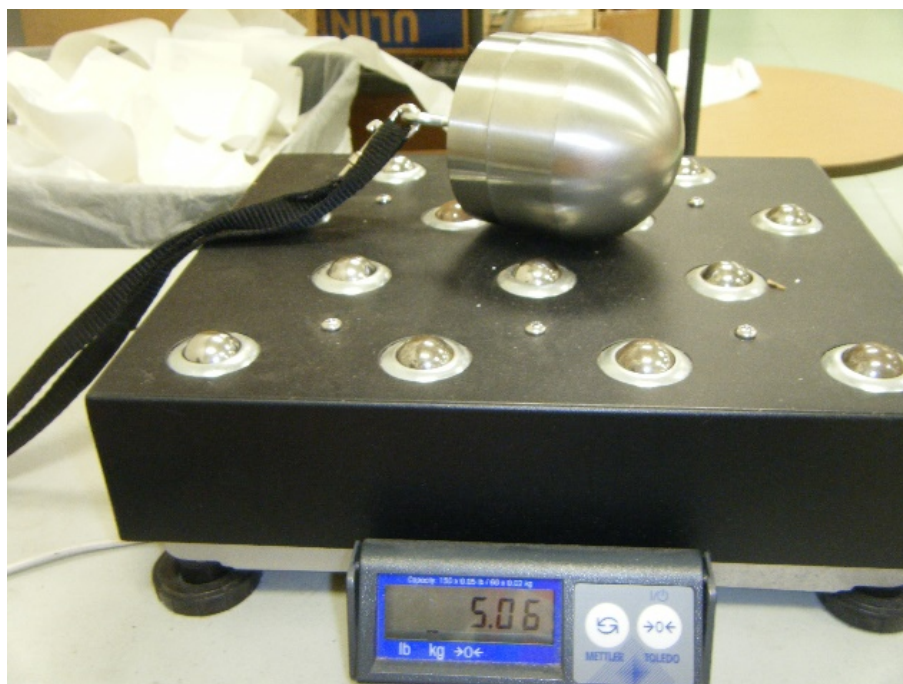
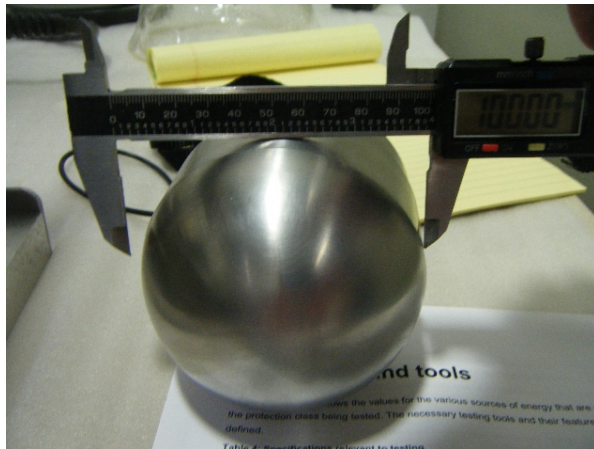
Following is the chart used testing parameters.

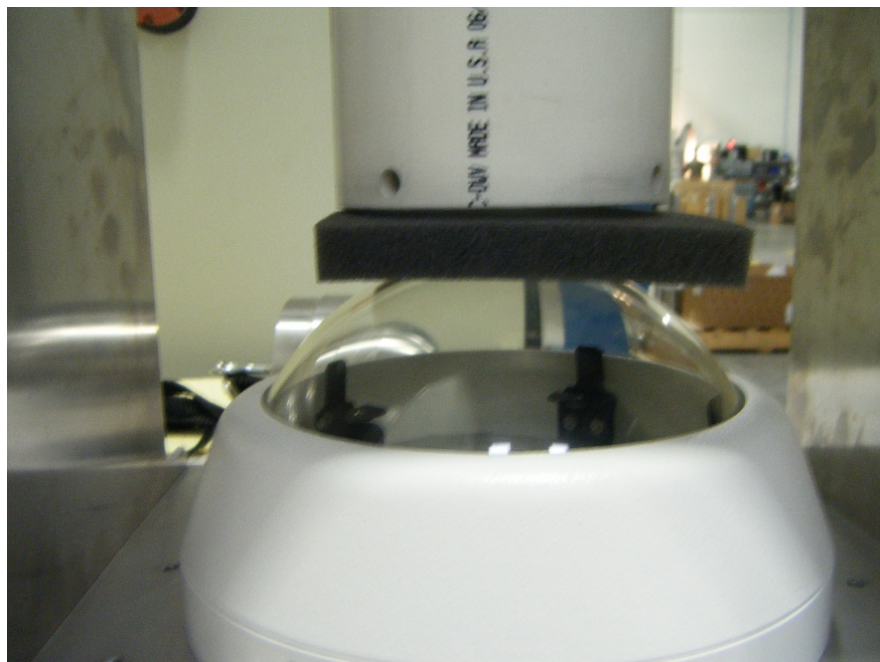
IK code	IK00	IK01 to IK05	IK06	IK07	IK08	IK09	IK10
Energy in joules	*	< 1	1	2	5	10	20
R in mm	*	10	10	25	25	50	50
Material	*	Polyamide (1)		Steel (2)			
Mass in kg	*	0.2	0.5	0.5	1.7	5	5
D in mm	*	20	25	35	60	80	100
f in mm	*	10	4	7	10	20	20
r in mm	*	-	2.5	-	6	-	10
l in mm	*	57.5	120	60	65	110	63
Pendulum hammer	*	Yes	Yes	Yes	Yes	Yes	Yes
Spring hammer	*	Yes	Yes	Yes	No	No	No
Free-fall hammer	*	No	No	Yes	Yes	Yes	Yes
Height of fall				0.408 m	0.300 m	0.204 m	0.408 m
* No protection							
1) R 100, Rockwell hardness to ISO 2039/2							
2) Fe 490-2, Rockwell hardness to ISO 10152							



Hammer tool is 5 kg with a diameter of 100mm and a radius of 50mm.

Material: 1018 Polished Steel

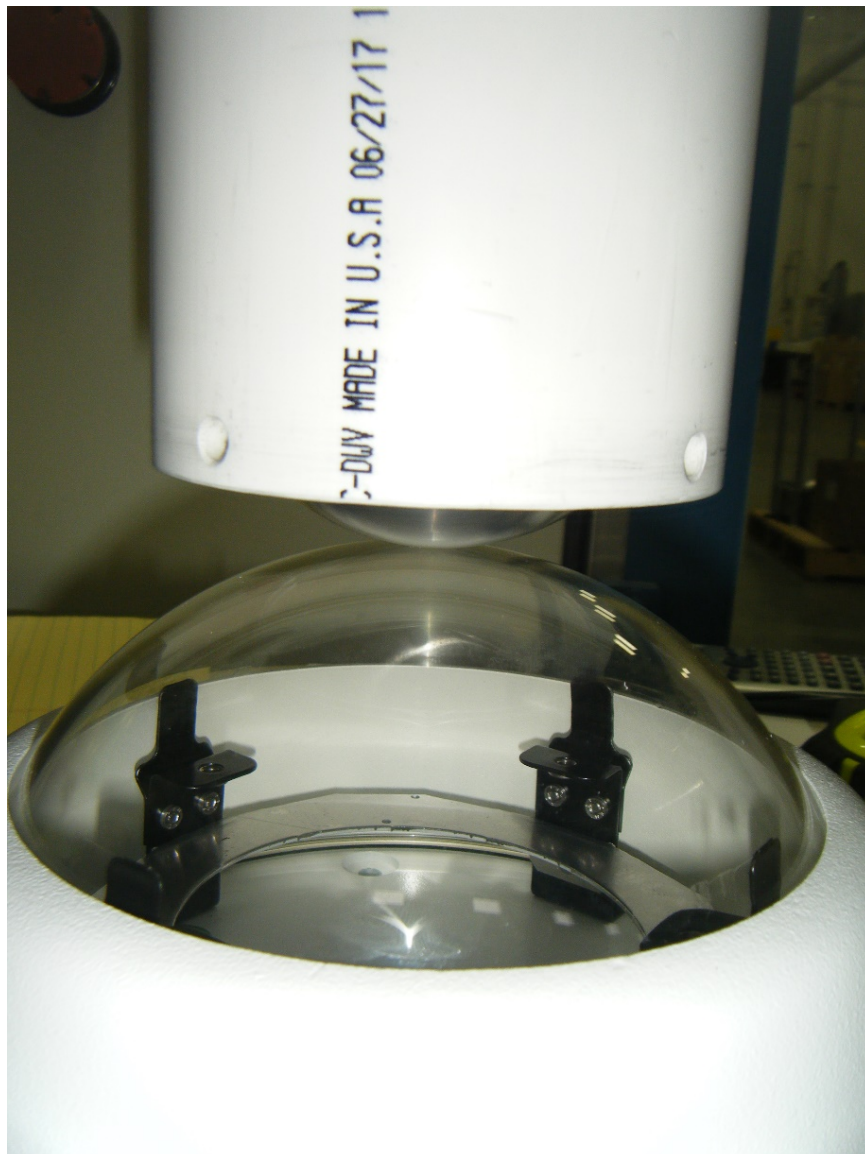




After multiple weight drops; the dome and housing were not damaged.

Prior to final test, a marker was located inside the housing at the depth equal to the top of the camera as installed in the housing. After weight drop the marker did not contact the dome.

Actual deflection was not measured. The deflection is estimated by placing a gage pin against the inside surface of the dome, pin was supported by a foam block. After weight drop, the foam block with pin was removed and pin had depressed about 18mm from original position.



Conclusion:

BDH-7500 and BDH-7500HB both use the same housing.

Both units will successfully pass independent testing for IP67. This rating can be maintained through proper installation techniques using the correct cable size, type and bonded sealing washers for anchoring fasteners.

Both units will successfully pass independent testing for IK10 rating. Proper fasteners used to anchor the units based on the mounting condition and surface material will keep unit securely attached.

