

ELECTRICAL

Crystal Fountains provides a full range of all the peripheral electrical equipment required to operate your water feature:

- Wind Controls
- Water Level Controls
- Junction Boxes
- Cord Seals
- Stub Ups

Most water features run on automated systems allowing the fountain to self-monitor operations - wind, water and lighting. Using these devices in an overall system design creates a more efficient water feature.

General Information for Electrical

Standard Threading:

Standard threading on components are National Pipe Thread (NPT) unless requested otherwise at the time of order. All thread sizes less than 26mm will be NPT.

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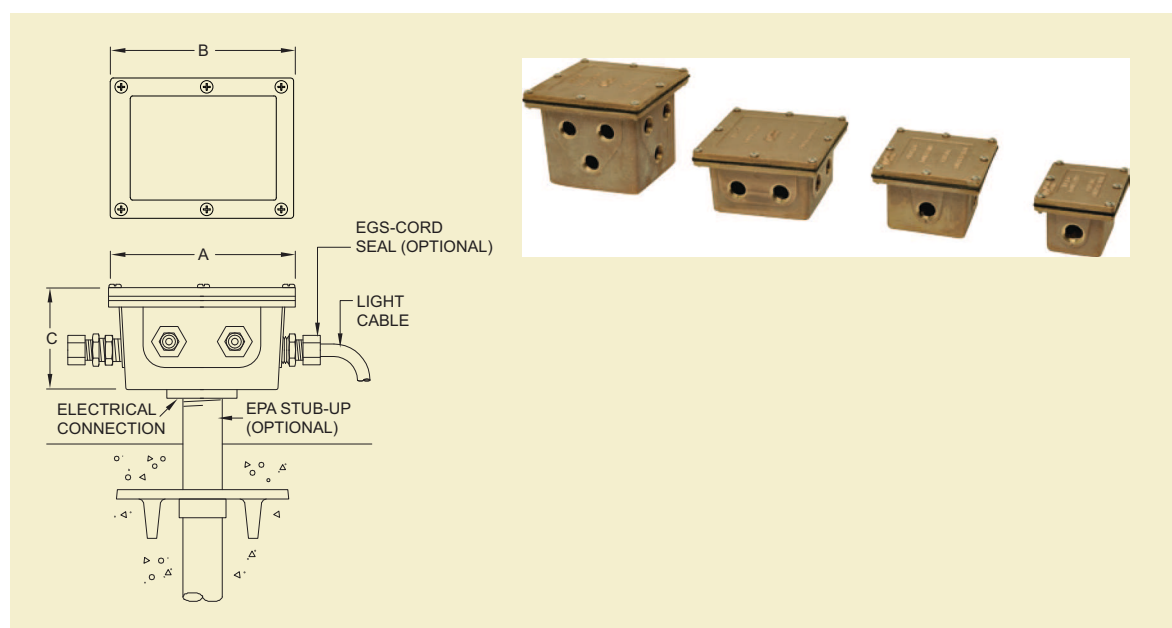
EBJ Series – Underwater Junction Box

Submersible conduit mounted junction boxes for underwater lights and pumps. Junction boxes come in various sizes and are best used with brass cord seals (EGS) and brass conduit stub ups (EPA). Recommend to seal with junction box sealant (EBJC10 or EBJC20). UL and ULC listed. Made of cast bronze.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	side connections (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)	inside vol. (cu. cm.)
EBJ202	3/4"	2 x 1/2"	102	83	83	78
EBJ204	3/4"	4 x 1/2"	115	115	96	149
EBJ208	1"	8 x 1/2"	140	140	89	265
EBJ212	1 1/4"	12 x 1/2"	140	140	115	420
EBJ216	1 1/2"	16 x 1/2"	178	178	140	768



EBJ202, EBJ204 and EBJ208 are available under our Quick Ship program! See page 15 for more details.

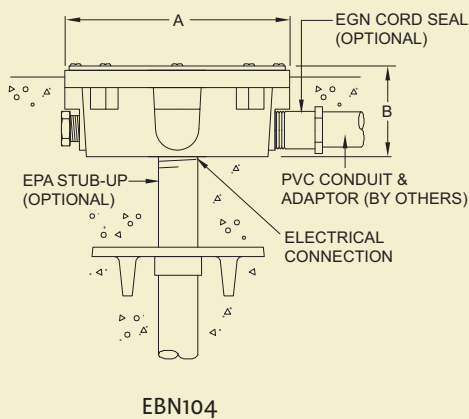
EBN Series – Underwater Junction Box

Flush-mounted underwater electrical junction box for poured-in-concrete applications. Can also be conduit-mounted. Available in two sizes best used with brass cord seals (EGN) and brass conduit stub ups (EPA). Recommend to seal with junction box sealant (EJC10/C20). UL and ULC listed. Made of cast bronze.

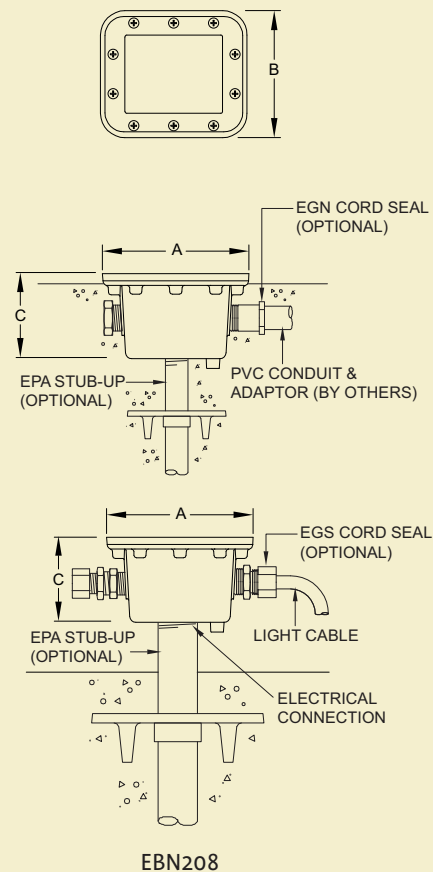
***Contact Crystal Fountains for detailed specifications, installation and operation details.**

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	side connections (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)	inside vol. (cu. cm.)
EBN104	3/4"	4 x 1/2"	64	166		149
EBN208	13 to 2"	8 x 1/2" or 3/4"	194	166	115	400



EBN104 is available under our Quick Ship program! See page 15 for more details.



ECL Series – Water Level Control Panel

The ECL water level control panel is used in conjunction with the AVQ Solenoid Fill Valve and water level sensors to monitor water levels in a fountain. It can monitor up to three water level operations depending on version selected. Operates on 120 or 220 volts. Panel interior NEMA 12 construction with optional weather-proof enclosure:

Quick-Fill Operation:

Fills or replenishes pool water loss due to evaporation or splash.

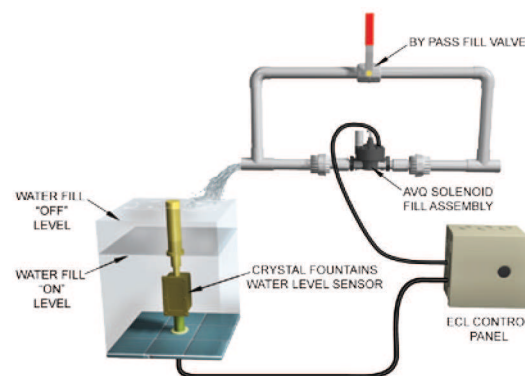
Safe-Off Operation:

Shuts off in-pool electrical (lighting/pumps) during low water level situations.

Max. Level Control: With the inclusion of a third sensor applications are expanded i.e

- To signal a high water level in traditional fountains
- Regulate start-up and shut-down water volumes on waterfall applications
- More precision control of high and low water volumes

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



TYPICAL SYSTEM DESIGN

DIMENSIONS

Part No.	a dim. (mm)	b dim. (mm)	c dim. (mm)
ECL100	159	153	108
ECL200	185	134	134
ECL300	286	235	159

How to Order

CHOOSE SENSOR

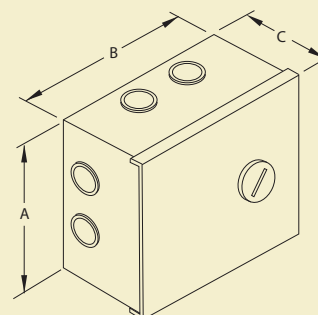
No. of Sensors	Function	Specific Application	Part No.
1	Quick fill	N/A	ECL100
	Safe-off	N/A	ECL101
2	Quick fill and safe-off	N/A	ECL200
3	Quick fill, safe-off and maxi-level control	Reservoir	ECL300
		Differential	ECL301
		High Water Alarm	ECL302

CHOOSE ADDITIONAL OPTIONS

Options	Add Suffix
Weather Proof Enclosure	W

EXAMPLE OF HOW TO ORDER

Quantity	Product	Part No.
1	Quick fill and safe-off water level control panel with weather proof enclosure	ECL200W



ECL100



ECL300

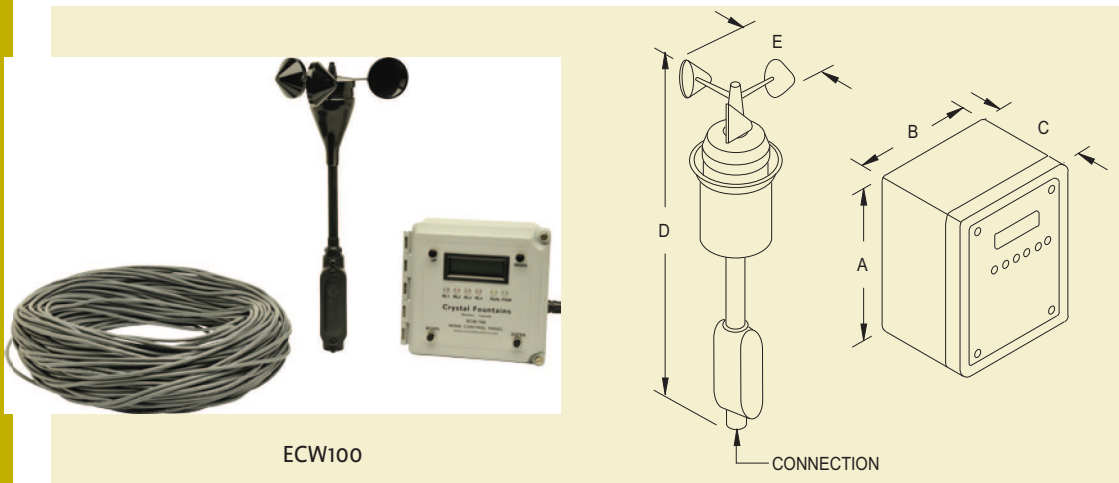
ECW Series – Wind Control Panel

The ECW series wind control panel accurately senses wind velocity and adjusts the fountain controls to enable the system to continue to operate in less than perfect wind conditions. Panel includes an LCD display panel with adjustable wind-speed set points. Can monitor up to two wind zones at once using the dual sensor capability (ECW200). Can control up to 4 relays (i.e. pumps, sequencing devices etc) and comes with memory back up. Available in 120V/220V. Control panel housing of plastic NEMA 4x rated. Wind sensor with plastic sensing head, rubber boot enclosure and copper and aluminum stem. Cable - 92m length.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*

DIMENSIONS

Part No.	No. of sensors	a dim. (mm)	b dim. (mm)	c dim. (mm)	d dim. (mm)	e dim. (mm)
ECW100	1	166	204	127	337	153
ECW200	2	166	204	127	337	153



EGN Series – Junction Box Cord Seal – Flush Mounted

Compression cord seal for use with EBN flush-mounted junction box. Provides watertight connection of underwater cables connecting junction boxes with lights. Threaded connector, compression nut and friction washer made of brass with neoprene compression seal.

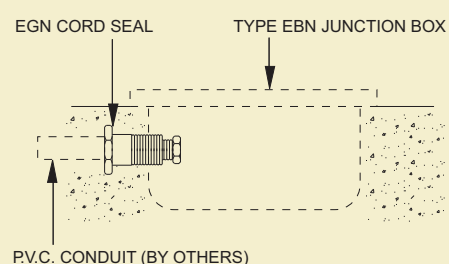
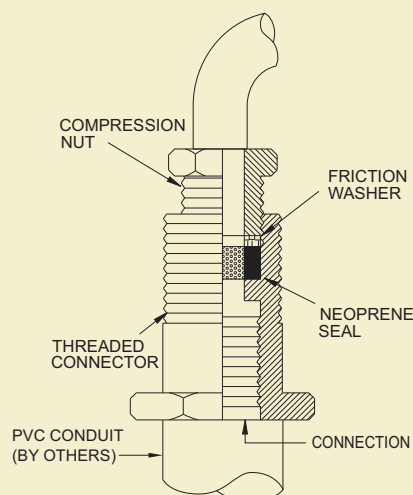
**Contact Crystal Fountains for detailed specifications, installation and operation details.*

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	cable size	awg types
EGN075	3/4"	10 mm - 12 mm	18/3, 18/4, 16/3, 16/4 ...
EGN100	1"	17 mm	10/3--



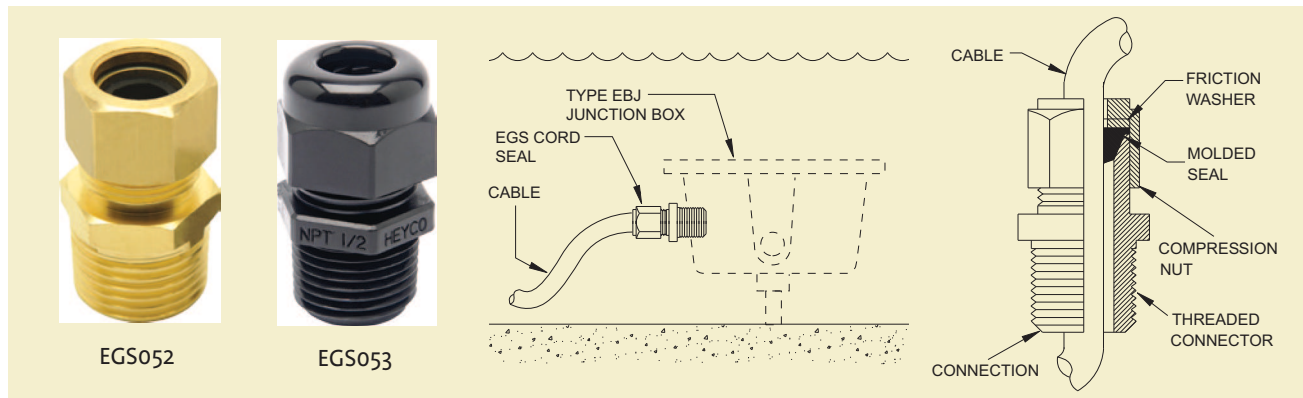
EGN075



EGN075 is available under our Quick Ship program! See page 15 for more details.

EGS Series – Junction Box Cord Seal - Standard

For watertight connections of underwater cables connecting EBJ junction boxes with lights, water level sensors and pumps. Threaded connector, compression nut and friction washer made of brass with neoprene compression seal.



**Contact Crystal Fountains for detailed specifications, installation and operation details.*

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	cable size	awg types
EGS052	1/2"	10 mm - 12 mm	18/3, 18/4, 16/3, 16/4 ...
EGS053	1/2"	13 mm	18/5
EGS071	3/4"	10 mm - 13 mm	16/6, 14/5 ...
EGS073	3/4"	13 mm - 16 mm	14/5, 12/5, 12/4, 10/5 ...
EGS074	3/4"	16 mm - 20 mm	12/5, 10/4, 8/5 ...



EGS052 is available under our Quick Ship program! See page 15 for more details.

*EGS053 is only to be used with:

- LED160 Series
- LED170 Slab Hanger Series
- LED180 Slab Hanger Series
- LED052 Series
- LED053 Series
- LED055 Series

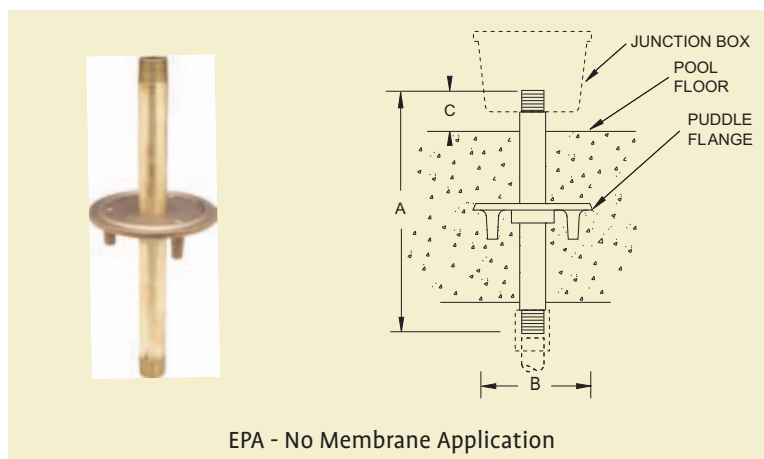
EP Series – Stub Up

Flanged bronze conduit stub ups adhere to electrical code, are leak-proof and strong. Stub ups provide watertight and secure penetrations through concrete and membranes directly into fountain pools. Works with EBJ or EBN bronze underwater junction boxes. Available in 3 versions for different applications. Made of red brass with cast bronze and available in custom lengths.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*

DIMENSIONS

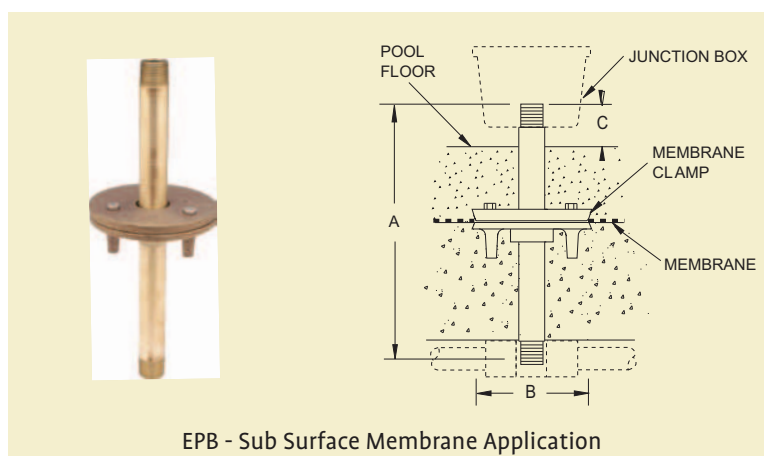
Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)
EPA050	1/2"	305	118	102
EPA075	3/4"	305	118	102
EPA100	1"	305	118	102
EPA125	1 1/4"	305	118	102
EPA150	1 1/2"	305	118	102
EPA200	2"	305	118	102
EPA300	3"	305	118	102



EPA - No Membrane Application

DIMENSIONS

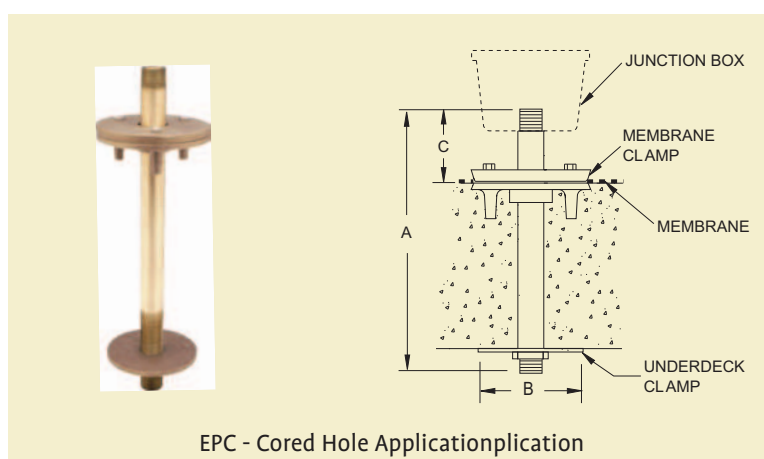
Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)
EPB050	1/2"	305	118	102
EPB075	3/4"	305	118	102
EPB100	1"	305	118	102
EPB125	1 1/4"	305	118	102
EPB150	1 1/2"	305	118	102
EPB200	2"	305	118	102
EPB300	3"	305	118	102



EPB - Sub Surface Membrane Application

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)
EPC050	1/2"	305	118	102
EPC075	3/4"	305	118	102
EPC100	1"	305	118	102
EPC125	1 1/4"	305	118	102
EPC150	1 1/2"	305	118	102
EPC200	2"	305	118	102
EPC300	3"	305	118	102



EPC - Cored Hole Application

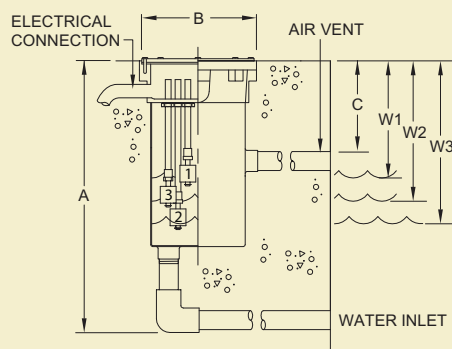


This product (excluding EPA50 and EPA300) is available under our Quick Ship program! See page 15 for more details.

ESD Series – Deck Mounted Level Sensor

12 VAC 0.5 amp deck-mounted electronic water level sensor automatically monitors quick fill and safe-off functions from outside of the pool. Water entry and air vent tubes extend through pool wall. Top access facilitates final float adjustment. Low voltage for safety. Connects to ECL control panel. Available in 3 versions with 1 – 3 sensors for quick-fill or safe-off or maxi-level control. Made of cast bronze, brass, copper and stainless steel.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



1. Quick Fill or Safe off Sensor
2. Quick Fills Sensor
3. Maxi-Level Sensor

**For typical system design see page 179

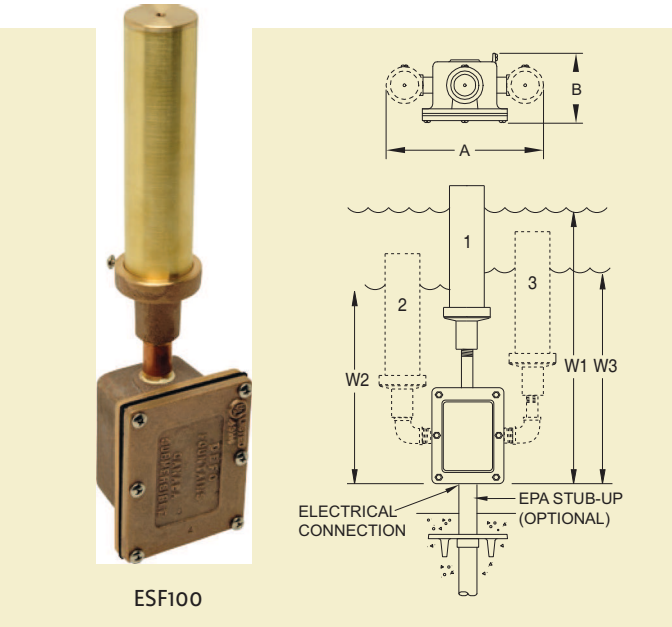
DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)	w1 dim. (mm)	w2 dim. (mm)	w3 dim. (mm)
ESD100	1/2"	369	166	147	254		
ESD200	1/2"	369	166	147	197	254	
ESD300	1/2"	369	166	147	197	223	254

ESF Series – Conduit Mounted Level Sensor

12VAC/DC 0.28 amp conduit mounted electronic water level sensor automatically monitors quick fill and safe-off functions. Low voltage for safety. Connects to ECL control panel. Available in 3 versions with 1 – 3 sensors for quick-fill or safe-off or maxi-level control. Also available with custom sensor heights to meet any water depth application. Made of cast bronze and brass.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



ESF100

1. Quick Fill or Safe off Sensor
2. Quick Fills Sensor
3. Maxi-Level Sensor

**For typical system design see page 179.

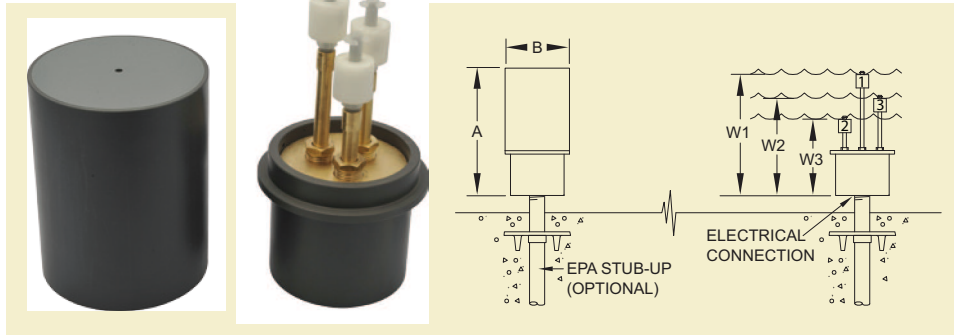
DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	w1 dim. (mm)	w2 dim. (mm)	w3 dim. (mm)
ESF100	3/4"	83	83	254		
ESF200	3/4"	102	204	204	254	
ESF300	3/4"	102	204	204	229	254

ESG Series – Conduit Mounted Level Sensor

12VAC/DC 0.28 amp conduit mounted electronic water level sensor automatically monitors quick fill and safe-off functions. Low voltage for safety. Connects to ECL control panel. Available in 3 versions with 1 – 3 sensors for quick-fill or safe-off or maxi-level control. Made of extruded plastic, brass, copper and stainless steel.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



1. Quick Fill or Safe off Sensor
2. Quick Fills Sensor
3. Maxi-Level Sensor

**For typical system design see page 179.

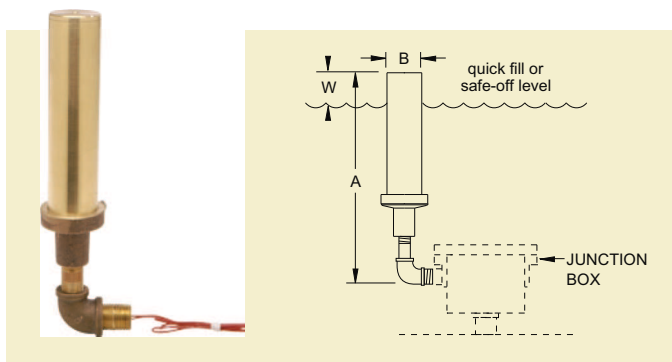
DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	w1 dim. (mm)	w2 dim. (mm)	w3 dim. (mm)
ESG100	3/4"	229	115	216		
ESG200	3/4"	229	115	216	166	
ESG300	3/4"	229	115	216	185	166

ESL Series – Adaptable Level Sensor

The 24 VAC/DC 0.28 amp water level sensor is adaptable to most junction boxes for varied applications and good for fountain renovation. Sensors can be used for quick-fill and/or safe-off functions on pools where level controls either were not provided or are no longer functional. Connects to ECL control panel. Available in custom sizes for various water depths. Made of bronze and brass.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



**For typical system design see page 179.

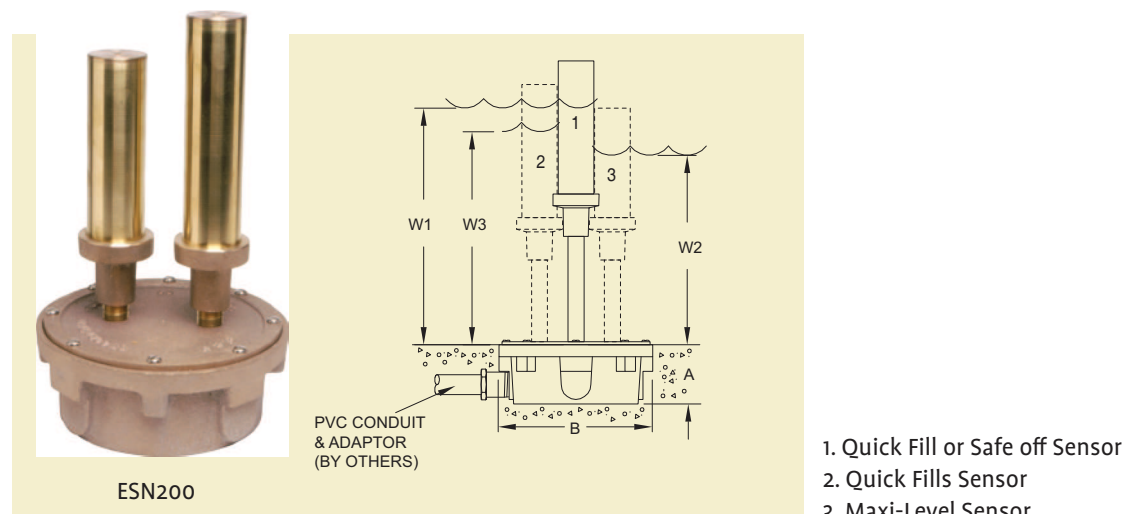
DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	w dim. (mm)
ESL100	1/2"	242	39	51

ESN Series – Cast-In Level Sensor

24VAC/DC 0.28 amp cast-in electronic water level sensor automatically monitors quick fill and safe-off functions in very shallow water depths. Sensor is adjustable in height after installation. Low voltage for safety. Connects to ECL control panel. Available with either side or bottom power connection and is available in 3 versions with 1 – 3 sensors for quick-fill or safe-off or maxi-level control. Also available in custom sizes for various water depths. Made of cast bronze and brass.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



**For typical system design see page 179.

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	w1 dim. (mm)	w2 dim. (mm)	w3 dim. (mm)
ESN100 / ESN101	1/2"	64	166	254		
ESN200 / ESN201	1/2"	64	166	254	204	
ESN300 / ESN301	1/2"	64	166	254	204	229

How to Order

CHOOSE SENSOR

Function	No. of Sensors	Connection	Part No.
Quick fill or safe-off	1	Side	ESN100
		Bottom	ESN101
Quick fill and safe-off	2	Side	ESN200
		Bottom	ESN201
Quick fill, safe-off and maxi-level control	3	Side	ESN300
		Bottom	ESN301

ESO Series – Electronic Level Control and Overflow

12VAC 0.5 amp flush, wall mounted, combination electronic water level controller and overflow drain. Automatically monitors quick fill and safe-off functions, and drains overflow water through a built in drain. Integral adjustments on level sensors and standpipe facilitate adjustments after installation. Low voltage for safety. Connects to ECL control panel. Available in 3 versions with 1 – 3 sensors for quick-fill or safe-off or maxi-level control. Also available with vandal resistant kit or brass cover plate. Made of cast bronze with resistant stainless steel cover and molded plastic enclosure. Overflow drain assembly of brass, copper and extruded plastic fitted.

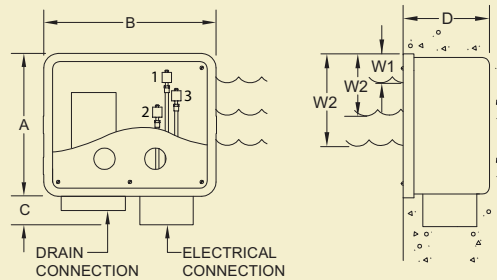
**Contact Crystal Fountains for detailed specifications, installation and operation details.*



This product is available under our Quick Ship program! See page 15 for more details.



ESO300



1. Quick Fill or Safe off Sensor
2. Quick Fills Sensor
3. Maxi-Level Sensor

**For typical system design see page 179.

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	Drain connection (n.p.t.) (mm)	a dim. (mm)	b dim. (mm)	c dim. (mm)	d dim. (mm)	w1 dim. (mm)	w2 dim. (mm)	w3 dim. (mm)
ESO100 / ESO101	3/4"	77	254	305	51	147	64		
ESO200 / ESO201	3/4"	77	254	305	51	147	64	115	
ESO300 / ESO301	3/4"	77	254	305	51	147	64	89	115

How to Order

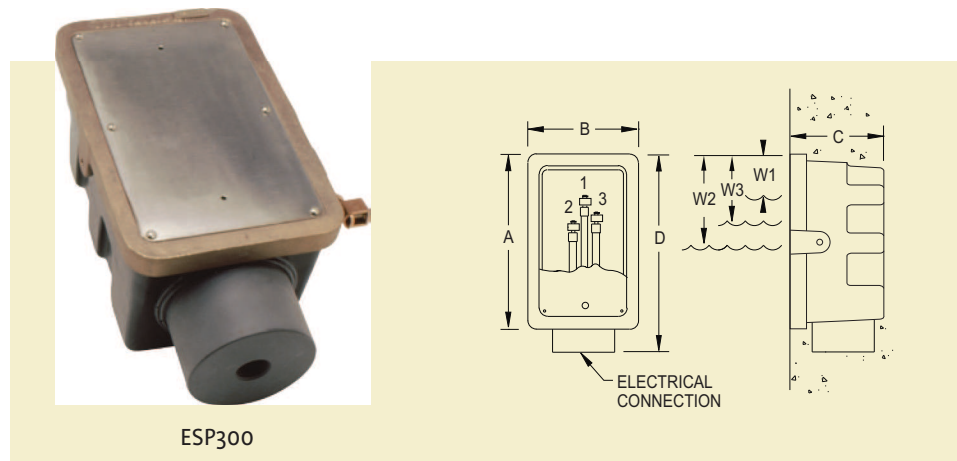
CHOOSE SENSOR

Function	No. of Sensors	Cover Material	Part No.
Quick fill or safe-off	1	Stainless Steel	ESO100
		Brass	ESO101
Quick fill and safe-off	2	Stainless Steel	ESO200
		Brass	ESO201
Quick fill, safe-off and maxi-level control	3	Stainless Steel	ESO300
		Brass	ESO301

ESP Series – Wall Mounted Level Sensor

12VAC/DC 0.28 amp flush, wall mounted, electronic water level sensor automatically monitors quick fill and safe-off functions. Low voltage for safety. Connects to ECL control panel. Available in 3 versions with 1 – 3 sensors for quick-fill, safe-off or maxi-level control. Also available with vandal resistant kit or brass cover plate. Made of cast bronze frame with stainless steel.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



1. Quick Fill or Safe off Sensor
2. Quick Fills Sensor
3. Maxi-Level Sensor

**For typical system design see page 179.

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)	d dim. (mm)	w1 dim. (mm)	w2 dim. (mm)	w3 dim. (mm)
ESP100 / ESP101	3/4"	261	166	134	312	51		
ESP200 / ESP201	3/4"	261	166	134	312	51	102	
EPS300 / EPS301	3/4"	261	166	134	312	51	77	102

How to Order

CHOOSE SENSOR

Function	No. of Sensors	Cover Material	Part No.
Quick fill or safe-off	1	Stainless Steel	ESP100
		Brass	ESP101
Quick fill and safe-off	2	Stainless Steel	ESP200
		Brass	ESP201
Quick fill, safe-off and maxi-level control	3	Stainless Steel	ESP300
		Brass	ESP301



This product is available under our Quick Ship program! See page 15 for more details.

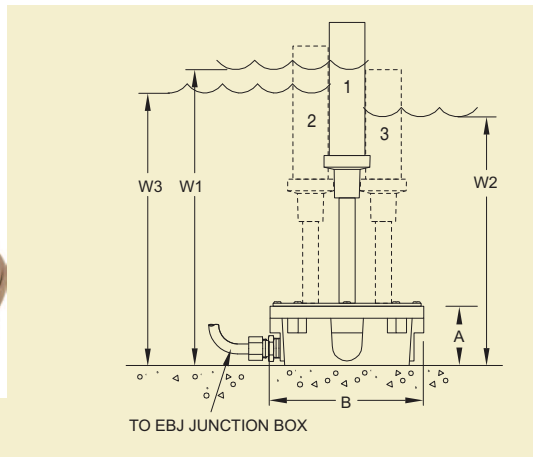
ESS Series – Moveable Level Sensor

24 VAC/DC 0.28 amp moveable electronic water level sensor automatically monitors quick fill and safe-off functions in very shallow water depths. Connects to a junction box that can be moved to anywhere within its cable reach. Sensor is adjustable in height after installation. Low voltage for safety. Connects to ECL control panel. Available in 3 versions with 1 – 3 sensors for quick-fill or safe-off or maxi-level control. Made of cast bronze and comes with 2.7m type submersible cable.

**Contact Crystal Fountains for detailed specifications, installation and operation details.*



ESS200



1. Quick Fill or Safe off Sensor
2. Quick Fills Sensor
3. Maxi-Level Sensor

**For typical system design see page 179.

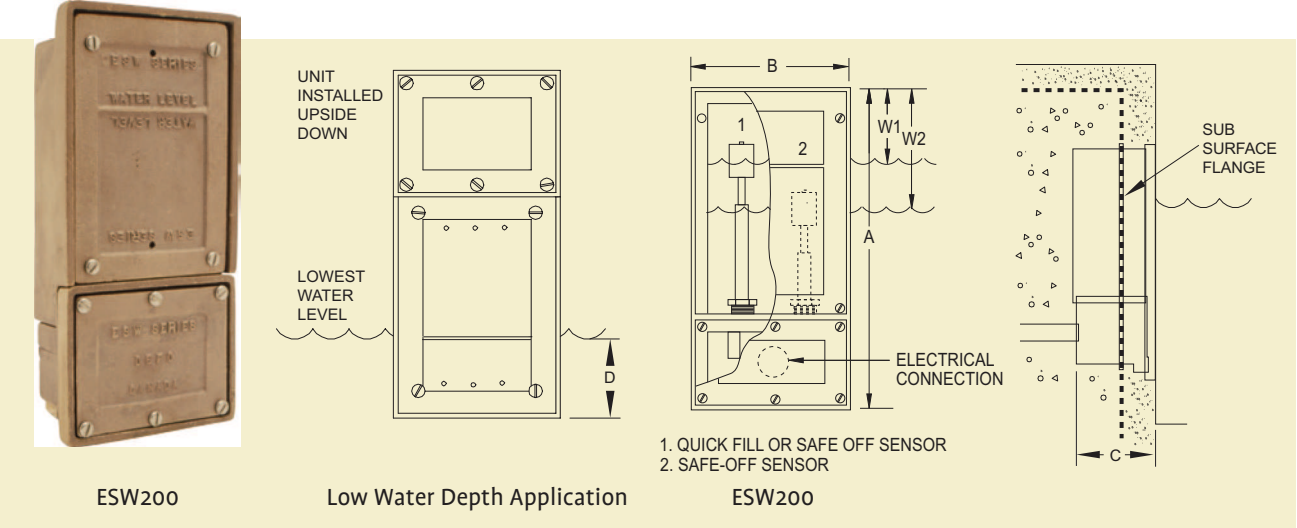
DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	w1 dim. (mm)	w2 dim. (mm)	w3 dim. (mm)
ESS100	1/2"	64	166	254		
ESS200	1/2"	64	166	254	204	
ESS300	3/4"	64	166	254	204	229

ESW Series – Wall Mounted Level Sensor

24 VAC/DC 0.28 amp flush, wall mounted, electronic water level sensor automatically monitors quick fill and safe-off functions. May be mounted upside down for shallow applications. Standard with back connection. Low voltage for safety. Connect to ECL control panel. Available in 2 versions with 1 or 2 sensors for quick-fill or safe-off. Also available with optional bottom connection, surface flange or membrane clamp. Made of cast bronze.

*Contact Crystal Fountains for detailed specifications, installation and operation details.



**For typical system design see page 179.

DIMENSIONS

Part No.	Electrical connection (b.s.p.t.)	a dim. (mm)	b dim. (mm)	c dim. (mm)	d dim. (mm)	w1 dim. (mm)	w2 dim. (mm)
ESW100 - ESW105	1/2"	254	121	77	64	64	
ESW200 - ESW205	1/2"	254	121	77	64	64	83

How to Order

CHOOSE SENSOR

Function	No. of Sensors	Connection	Waterproof Membrane Clamp	Waterstop Subsurface Flange	Part No.
Quick fill or safe-off	1	back	no	no	ESW100
				yes	ESW101
			yes	yes	ESW102
		bottom	no	no	ESW103
				yes	ESW104
			yes	yes	ESW105
Quick fill and safe-off	2	back	no	no	ESW200
				yes	ESW201
			yes	yes	ESW202
		bottom	no	no	ESW203
				yes	ESW204
			yes	yes	ESW205