# ELECTRODE HOLDERS AND ELECTRODES

## B/W Controls

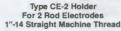
### MOLDED ELECTRODE HOLDERS

Type CE-2 & CE-3 Holders — These small holders are primarily for use in original equipment applications where available space is limited and where desired level control can be obtained with two or three short solid rod electrodes. They are furnished with a flexible PVC water-tight cover to protect lead wire junctions.

A choice of two thermoplastic materials is available with ratings as shown below. Pressure seal is accomplished with a Buna N gasket included with each holder. They have 303SS studs with 6-32 male thread for electrode connections.

HOLDER Material	MAXIMUM RATINGS	
Butyrate	200 psi @ 100°F (38°C) 160°F (71°C) @ 0 psi	
Nylon	200 psi @ 200°F (93°C) 350°F (177°C) @ 0 psi	









CATALOG NUMBER 6012 — CE2B

Holder Material		Old Part Number	LIST	
2B	Butyrate	12-053600	<b>404.09</b>	
2N	Nylon	12-082500	-	

CATALOG NUMBER 6012 — CE3B

1"-14 Straight Machine Thread

	Holder Material	Old Part Number	LIST PRICE
CE3B	Butyrate	12-073500	\$54.00
CE3N	Nylon	12-082700	40.00

NOTE: The required Type 6B rod electrodes must be ordered as separate items. See Catalog Section 6013 page 13. Maximum recommended bare rod length is 12 inches.

Not available for wire suspension electrodes.

Type AE-2 Holders — Molded of ABS corrosionresistant thermoplastic material, these holders are ideal for use in applications involving control of many corrosive liquids. Designed to permit the use of either two solid rod or two wire suspension electrodes, they are supplied with flexible PVC watertight covers to protect the lead wire junctions.

They have 303SS couplings with 1/4-20 female thread for electrode connections.



250 psi @ 100°F (38°C) 180°F (82°C) @ 0 psi



#### **TYPE AE-2 HOLDER**

For 2 Rod or Wire Suspension Electrodes 2" NPT Pipe Thread Mounting

LIST PRICE

Catalog No. 6012-AE2 Old Part No. 12-034500

NOTE: The required electrodes must be ordered as separate items, see Catalog Setion 6013 for information.

Rod Electrodes — Type A rods are used see page 13.

Wire Suspension Electrodes — A wire connector is required for each wire suspension electrode, see page 12.

### CONDUIT ELECTRODE HOLDERS



Type AE-2

with rod

electrodes

Designed for use with BIW wire suspension electrodes, these versatile low-cost holders are recommended for underground drainage sumps, septic dosing tanks, open sumps and similar applications. Available in cadmium plated cast iron for general purpose applications, or rigid polyvinyl chloride for corrosive situations.

These holders are mounted by attaching to a length of standard conduit extending over the liquid being controlled. They have grommets for each wire suspension electrode, and come in two sizes to accommodate up to eight electrodes.

CATALOG NUMBER 6012 — C4I

	No. of	Holder	Conduit Co	Connection	Old Part Number	LIST PRICE
	Electrodes	Material	Size	ze Type		
C4I	1-4	Cast Iron	1/2" NPT	Threaded	12-056900	389100
C4P	1-4	PVC	1/2" PVC	Cement	12-065400	49100
CSI	1-8	Cast Iron	1" NPT	Threaded	12-081800	4000
C8P	1-8	PVC	1" PVC	Cement	12-081900	60:00

NOTE: The required wire suspension electrodes must be ordered as separate items. See Catalog Section 6013, page 14 for ordering information

## CORD GRIP ELECTRODE HOLDERS



Type CG1

with E-IP

Electrode

BIW cord grip electrode holders provide a simple, low-cost means of sealing lead wire openings against leakage of gases and liquids in non-pressure applications requiring use of wire suspension electrodes. These include submersible pump installations with low level cutoff control, underground water storage tanks, covered sumps, and sewage pumping stations.

Made of aluminum machined for ½" pipe thread mounting, they are furnished with compressible Neoprene packing to support either one or two wire suspension electrodes.



Type CG2 with E-IS Electrodes

CATALOG NUMBER 6012 ——— CG1 DISCOUNT SCHEDULE LL1
Prices Subject to Change Without Notice

	No. of Electrodes	Holder Material	Mounting Thread	Old Part Number	LIST PRICE
CG1	1	Aluminum	1/2" NPT	12-055900	\$78.00
CG2	2	Aluminum	1/2" NPT	12-056000	46.00

NOTE: The required wire suspension electrodes must be ordered as separate items. See Catalog Section 6013, page 12 for ordering information.

## B/W Controls

## ICE-FREE ELECTRODE ASSEMBLIES

SECTION 6012 & 6013 PAGE 11

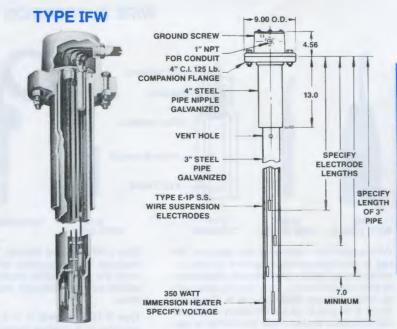
### STANDARD ASSEMBLY

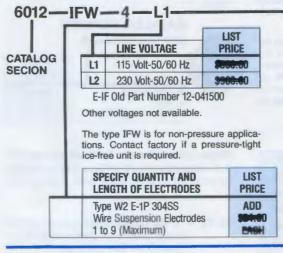
B|W ice-free electrode units are designed to provide positive, reliable pump control in areas where severe winter temperatures cause icing conditions which would normally interfere with or prevent proper pump operation.

The assembly consists of a Type E-55-4 cast iron flanged electrode holder threaded onto a 3" steel pipe and details are illustrated at the right. The thermostat is factory set to close at 32°F (0°C), and the heater will keep the water inside the 3" pipe free of ice even when heavy ice forms on the surface of the water surrounding the ice-free electrode assembly. The 4" pipe nipple with companion flange is provided to mount the unit. The nipple must be attached vertically to the tank top, and the rest of the assembly is then lowered and bolted into place.

When designing the control system, provisions must be made to cut-off the power to the immersion heater whenever the water level falls below the lowest electrode because the heater will burn out if it is energized when exposed to air.

A single pump, pump up system requires a B|W Type 1500-G relay with the NC contact controlling the pump, and the NO contact providing cut-off for the heater. See Catalog Sections 8040 and 8044 for information on standard and custom control panels.





SPECIFY LENGTH OF 3 INCH PIPE — FEET	LIST PRICE
2 ft. (Minimum) to 6 ft.	NO ADDITION
7 ft. to 21 ft.	ADD \$24:00 per ft.
Over 21 ft.	CONTACT FACTORY

If electrode lengths are not specified, they will be factory set at maximum length based on the 3" pipe length.

DISCOUNT SCHEDULE LL1
Prices Subject to Change Without Notice

	OPTIONAL FEATURES	LIST PRICE
X	None	
LP	Omit 3 inch Pipe Old Part No. 01-226000	DEDUCT \$480.00
LN	Omit 4 inch Pipe Nipple Old Part No. 09-155600	DEDUCT
LF	Omit 4 inch Companion Flange, Bolts, & Nuts Old Part No. 04-105400	DEDUCT \$00.00

NOTE — if more than one item is to be omitted, include the symbol for each item deducted.

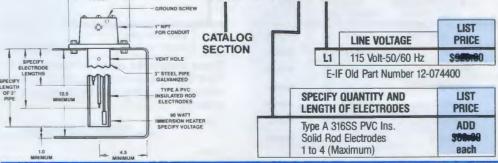
Example — LP-LN-LF

#### TYPE IFR

### SHALLOW TANK ASSEMBLY

Some applications such as cooling tower basins require short electrode lengths, and as shown at the left, the Type IFR will mount directly on a tank top, or on a bracket inside the basin.

These assemblies have electrode plug and stainless PVC insulated solid rod electrodes. The 115 volt ac heater is designed for operation in air and low level cut-off provision should not be provided.



6012-IFR-3-

26
SPECIFY LENGTH OF LIST

**3 INCH PIPE-INCHES** 

12 inch minimum to 48 inch maximum

- Other voltages not available.
- Order cannot be processed without length of each electrode and length of the 3 inch pipe.
- The Type IFR is for non-pressure applications. Contact factory if a pressure-tight ice-free untilis required.

**B/W Controls** 

CATALOG PAGE 40

PRICE

NO

**ADDITION**