



COILS AND ELECTRONIC CONTROLS

Series E Environmental Coils

NEW SERIES E WATER-PROOF / WEATHER-RESISTANT SOLENOID VALVE COILS

New Series E coils are the latest innovation in coil technology from Hydraforce. They are designed to meet the demanding requirements of mobile and industrial applications where weather resistance is required. Models with Deutsch DT and Metri-Pack® integral connectors and new dual leadwire models meet or exceed all IP69K standards for weather resistance, offering superior reliability under the most demanding conditions. Series E coils have passed what is known in the construction, agricultural and mobile equipment markets as the "Thermal Shock Dunk Test."

Series E coils feature a new, fully encapsulated coil winding technology. Deutsch and Metri-Pack® connectors are molded into the coil encapsulation, assuring IP69K weather resistance. An external metal shell serves as the element to concentrate the magnetic flux for the coil winding and also functions as a rugged container for the coil. No O-rings or waterproofing kits are required.

Models are available to fit most HydraForce valves. In most applications, these coils can be used to retrofit HydraForce valves already in field operation and will offer superior weather resistance.

Thermal Shock Dunk Test Rated

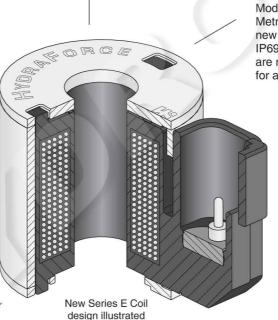
Series E coils with leadwires, Deutsch DT and Metri-Pack® connectors have passed what is known in the construction, agricultural and mobile equipment markets as the "Thermal Shock Dunk Test." (See page 3.400.2 for a description of this test.)

Fully Encapsulated Windings

Coils are fully encapsulated for zero leak paths when ordered with integral connector options.

Easy Installation

No O-rings, external sealing, or waterproofing kits required.



IP69K Rated with Integral Connectors and with New Dual Leadwires

Models with Deutsch DT and Metri-Pack® connectors as well as the new dual leadwire models are rated for IP69K. DIN and dual spade connections are rated for IP65. (See page 3.400.2 for a description of ratings.)

Field Retrofit-able

In most cases, Series E coils can be used to replace existing coils on HydraForce valves already in operation.

Shock Resistant

Integral grommet for Deutsch DT connectors increases durability under conditions of high random shock.

Rugged Metal Shell

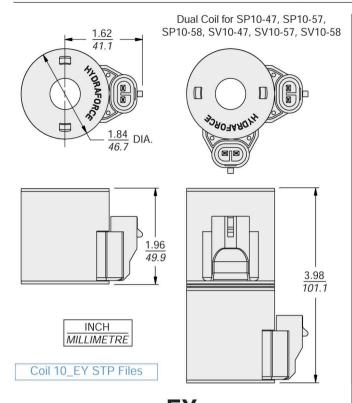
The rugged external metal shell provides exceptional protection against physical damage, ensuring durability under harsh operating conditions. It is salt spray rated for 1000 hours per ASTM B117 specifications.

High Temperature Operation

Class N 200°C (392°F) rated magnet wire and insulation materials allow high temperature operation and ensure long life under demanding conditions. Continuous-duty operation up to 100°C and 115% of nominal voltage.

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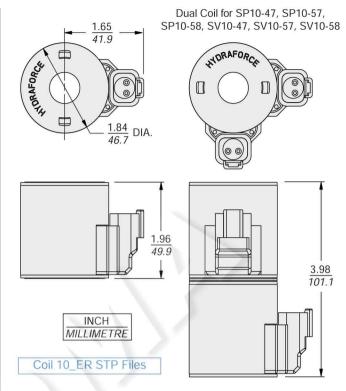
10-SIZE SERIES E COILS (Also for use on 12, 16, 20, 38 and 58 size poppet valves and 90-size spool valves)



EY IP69K Rated 10-Size Coil

Thermal Shock Dunk Test Rated Coil Metri-Pack® 150 Connector

Mating Connector: Delphi Packard No. 12052641; HF Part No. 6110119



ER

IP69K Rated 10-Size Coil Thermal Shock Dunk Test Rated Coil Deutsch DT04-2P Connector

Mating Connector: Deutsch No. DT06-2S; HF Part No. 4001417

2

EY Coil Part No.	EY/Z* Coil Part No.	ER Coil Part No.	ER/Z* Coil Part No.	Operating Voltage	Resistance at 20°C	Initial Current Draw	Power	Coil Weight
4303510	4303910	4303710	4304110	10 VDC	5.0 ohms	2.0 amps	20.0 watts	408 g. (14.4 oz.)
4303512	4303912	4303712	4304112	12 VDC	7.1 ohms	1.7 amps	20.5 watts	408 g. (14.4 oz.)
4303520	=	4303720	4304120	20 VDC	19.1 ohms	1.0 amps	19.1 watts	408 g. (14.4 oz.)
4303524	4303924	4303724	4304124	24 VDC	28.5 ohms	0.8 amps	18.2 watts	408 g. (14.4 oz.)

^{*} Models with Zener Diode

Please note: Electrical specifications for Series E coils differ from those for standard HydraForce coils. (Refer to page 3.200.1 for standard coil specifications.)

