



General Controls

ITT Fluid Technology Corporation

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Solenoid Coils

INSTALLATION AND SERVICE

SDI Coils
Effective: 6-90
Supersedes: SDI C2 (1-86)

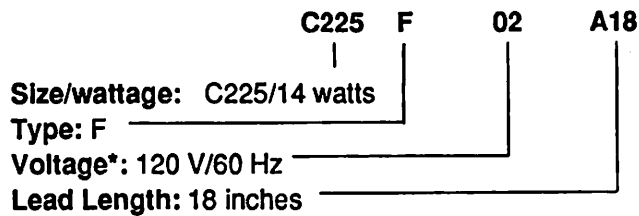
DESCRIPTION

Solenoid coils are available in many sizes and designs for dependable operation with ITT General Controls solenoid valves.

CATALOG NUMBERING SYSTEM

Coils are classified by size and wattage, type, voltage, and lead length.

Example: C225F02A18



* Voltage Some earlier catalog numbers use a 1- or 5-digit number to specify voltage, e.g. 02 (current nomenclature) = 2 = 120V/60 Hz.

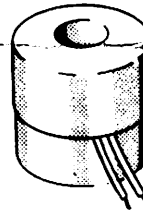
COIL SUBSTITUTIONS

F coil may be substituted for A or M coil, but not for H coil.

B and BW coils have been replaced by the improved F coils.

To substitute a coil type (when available), simply change the 5th digit of the coil part number. For example:

CS3AA08A24 becomes CS3AH08A24



A(M) or F (molded)



H (High Temperature)

CAUTION

- The coil and its solenoid valve should be installed and/or serviced only by a trained and experienced service technician.
- De-energize and disconnect all power wiring prior to servicing. All wiring must meet applicable local and national codes and ordinances.
- Improper valve assembly or coil installation may prevent the valve from operating properly. If so, the coil will overheat, and may burn out.
- Applied power must match rated frequency and voltage of coil.

Table 1. Coil Specifications

Coil Type	Coil Insulation	UL Rated Temperature		Temperature			
		°F	°C	Media		Ambient	
				°F	°C	°F	°C
A(M) F	Encapsulated, moisture and fungus resistant	221 311	105 155	185 230	85 110	77 150	25 66
H*	Varnish impregnated, moisture and fungus resistant	428	220	257 185 338	125 85 170	126 176 77	52 80 25

* Flow media temperature and ambient temperature are interdependent.

TERMS AND CONDITIONS

All products of the company are sold and all services of the company are offered subject to the company's terms and conditions of sale, copies of which will be furnished upon request.
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Table 2. Standard Solenoid Coils

Coil	Valve	Watts AC	VA Rating		Lead (In.)	Voltage (VAC)	Order Number
			Inrush	Holding			
C180	K3A ^a	8	48.0	17.3	18	24V/60 Hz 110-120V/50-60 Hz 220-240V/50-60 Hz	C180F01A18 C180F02A18 C180F04A18
C225	K10	14	120.0	31.2	18	24V/60 Hz 110-120V/50-60 Hz 208V/60 Hz 220-240V/50-60 Hz	C225F01A18 C225F02A18 ^b C225F03A18 C225F04A18 ^b
C300	K10	28	271.2	67.2	18	24V/60 Hz 110-120V/50-60 Hz 208V/60 Hz 220-240V/50-60 Hz	C300F01A18 C300F02A18 ^b C300F03A18 C300F04A18 ^b
C350	K10	32	504.0	81.6	18	110-120V/50-60 Hz 220-240V/50-60 Hz	C350F02A18 C350F04A18
CS3	S311	8	36.0	13.2	24	24V/60 Hz 110-120V/50-60 Hz 208V/60 Hz 220-240V/50-60 Hz	CS3AF01A24 CS3AF02A24 CS3AF03A24 CS3AF04A24
CS4	B50D K3A4/5	10	61.0	18.2	24	24V/60 Hz 110-120V/50-60 Hz 220-240V/50-60 Hz	CS4AF01A24 CS4AF02A24 CS4AF04A24
		10	77.0	18.0			
CS5	K3A6/7	17.5	168.0	30.3	18	24V/60 Hz 110-120V/50-60 Hz 208V/60 Hz 220-240V/50-60 Hz	CS5AA01A18 ^c CS5AA02A18 CS5AA03A18 ^c CS5AA04A18 ^c
	S261 (3/8"-3/4")	17.5	150.0	31.2			
	(1"-3")	17.5	252.0	31.2			
	S262 (3/8"-3/4")	18.5	120.0	37.2			
	(1"-3")	18.5	180.0	37.2			

^a Replacement only, for K3A valves without "S" suffix (8 watt).

^b For optional "H" coil, 5th character is "H."

^c For optional "F" coil, 5th character is "F."

COIL INSTALLATION

Note: It is not necessary to remove valve from pipeline.

1. Turn off electrical power to solenoid and disconnect solenoid leads. Note exact original configuration and position of all components.
2. Remove cover and lift solenoid out.
3. Install replacement solenoid and wire as originally configured. Solder and tape or wire-nut all connections.
4. Inspect the complete system after installation, and verify correct operation.

SERVICE

Excessive heat may cause coil to malfunction. Make sure that the solenoid valve temperature does not exceed the coil rating (Table 1). For applications requiring greater heat resistance or different electrical requirements, select proper coil from Table 2.

HOW TO ORDER

When ordering, specify exact coil number, and complete catalog and serial numbers, as shown on nameplate. Be sure that the coil selected is appropriate for the application.