Flow Factor ~ 216-765-4231

Coil Reference

Coil Portfolio and Solenoid Enclosures (Integrated Modular Coils and Replacement Coils for Non-integrated)

General Description:

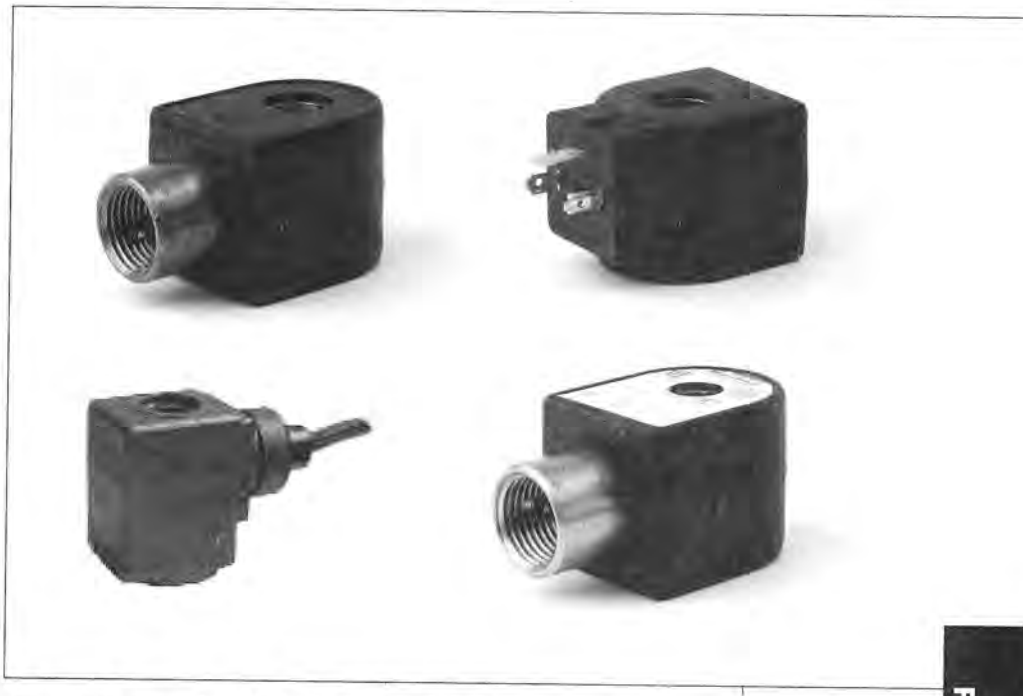
Solenoid Enclosure and Coil Information

Coils are electrical devices that produce magnetic flux when electrical power is applied to the windings. Surrounding the coil is the metal solenoid enclosure and frame. Together with the plunger and stop, it forms the magnetic circuit that operates the valve. Without the enclosure, the magnetic circuit is not complete. Without a complete magnetic circuit, the magnetic field is reduced and valve performance suffers. Depending on the coil voltage and power rating, the pressure rating of the valve can vary.

Solenoid enclosures come in a variety of constructions offering varying levels of protection against the elements and other forces. NEMA identifies the different enclosures as "Types" and NEC sets standards for their safety and performance.

Integrated coils have an epoxy or thermoplastic "over-molding" creating a one-piece coil/enclosure for modularity and protection from the environment.

The National Electrical Manufacturers Association (NEMA) recommends suitable materials and components to meet each enclosure type. The enclosures listed here will only meet the applicable NEMA recommendations when properly installed and operated to NEMA specifications and in accordance with the NEC.



Electrical Characteristics:

Standard Voltages:

AC –24/60
120/60 110/50
240/60 220/50
DC –12, 24 &120
For other Voltages – Consult Factory

Coil Classification:

Class F Standard
Class H Available

Agency Approvals:

Standard valves with NEMA Type 4X or Explosion Proof solenoid enclosures are UL Listed and CSA Certified. DIN coils are UL Recognized. For additional details, consult factory.

Optional coils feature ATEX and IECEx Approvals.

Ultra Low Power Coils (Coil Chart 12) are used on valves with a unique solenoid operator designed to keep current draw to a minimum, thus achieving the extremely low power consumption of 0.6 watts with no refresh time required for subsequent energization. These valves are ideally suited for use in automated control systems, applications where minimizing energy consumption is critical or where heat rise in the coil must be kept to a minimum. Due to the low power consumption, an increased number of solenoid valves can be driven from the same power source, reducing the overall installation cost.

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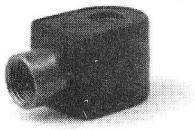
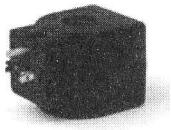
Integrated Coil Offering

	Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 1					
	AF4C01	1/2" NPT Conduit/18" Leads	24/60	6	F
	AF4C05		120/60, 110/50	6	F
	AF4C15		240/60, 220/50	6	F
	AH4C01	1/2" NPT Conduit/18" Leads	24/60	6	H
	AH4C05		120/60, 110/50	6	H
	AH4C15**		240/60, 220/50	6	H
	AFPH01	DIN 43650A/ISO 4400	24/60	6	F
	AFPH05		120/60, 110/50	6	F
	AFPH15**		240/60, 220/50	6	F
CHART 2					
	BF4C01	1/2" NPT Conduit/18" Leads	24/60	10.2	F
	BF4C05		120/60, 110/50	10.2	F
	BF4C15		240/60, 220/50	10.2	F
	BH4C01**	1/2" NPT Conduit/18" Leads	24/60	10.2	H
	BH4C05		120/60, 110/50	10.2	H
	BH4C15**		240/60, 220/50	10.2	H
	BFPH01**	DIN 43650A/ISO 4400	24/60	10.2	F
	BFPH05		120/60, 110/50	10.2	F
	BFPH15		240/60, 220/50	10.2	F
	BHPH01**	DIN 43650A/ISO 4400	24/60	10.2	H
	BHPH05		120/60, 110/50	10.2	H
	BHPH15		240/60, 220/50	10.2	H
CHART 3					
	1F4C75	1/2" NPT Conduit/18" Leads	12VDC	9.5	F
	1F4C80		24VDC	9.5	F
	1H4C75**	1/2" NPT Conduit/18" Leads	12VDC	9.5	H
	1H4C80**		24VDC	9.5	H
	1FPH75	DIN 43650A/ISO 4400	12VDC	9.5	F
	1FPH80		24VDC	9.5	F
	1HPH75**	DIN 43650A/ISO 4400	12VDC	9.5	H
	1HPH80		24VDC	9.5	H

* 1/2" NPT conduit and DIN coils offer NEMA Types 1, 2, 3, 4 and 4X protection with a suitable conduit installation or mating DIN connector and gasket.

** Not in list price book. Minimum order quantities may apply. Consult factory.

Flow Factor ~ 216-765-4231

Integrated Coil Offering

	Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 4					
	CF4C01	1/2" NPT Conduit/18" Leads	24/60	11	F
	CF4C05		120/60, 110/50	11	F
	CF4C15		240/60, 220/50	11	F
	CH4C01	1/2" NPT Conduit/18" Leads	24/60	11	H
	CH4C05		120/60, 110/50	11	H
	CH4C15		240/60, 220/50	11	H
	CFPH01	DIN 43650A/ISO 4400	24/60	11	F
	CFPH05		120/60, 110/50	11	F
	CFPH15		240/60, 220/50	11	F
	CHPH01	DIN 43650A/ISO 4400	24/60	11	H
	CHPH05		120/60, 110/50	11	H
	CHPH15		240/60, 220/50	11	H
CHART 5					
	DF4C01	1/2" NPT Conduit/18" Leads	24/60	16	F
	DF4C05		120/60, 110/50	16	F
	DF4C15		240/60, 220/50	16	F
	DH4C01**	1/2" NPT Conduit/18" Leads	24/60	16	H
	DH4C05		120/60, 110/50	16	H
	DH4C15**		240/60, 220/50	16	H
	DFPH01	DIN 43650A/ISO 4400	24/60	16	F
	DFPH05		120/60, 110/50	16	F
	DFPH15		240/60, 220/50	16	F
	DHPH01**	DIN 43650A/ISO 4400	24/60	16	H
	DHPH05		120/60, 110/50	16	H
	DHPH15		240/60, 220/50	16	H

* 1/2" NPT conduit and DIN coils offer NEMA Types 1, 2, 3, 4 and 4X protection with a suitable conduit installation or mating DIN connector and gasket.

** Not in list price book. Minimum order quantities may apply. Consult factory.

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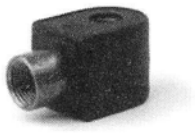
Integrated Coil Offering

	Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 6					
	3F4C75	1/2" NPT Conduit / 18" Leads	12VDC	11.5	F
	3F4C80		24VDC	11.5	F
	3H4C75**	1/2" NPT Conduit / 18" Leads	12VDC	11.5	H
	3H4C80		24VDC	11.5	H
	3FPH75	DIN 43650A/ISO 4400	12VDC	11.5	F
	3FPH80		24VDC	11.5	F
	3HPH75**	DIN 43650A/ISO 4400	12VDC	11.5	H
	3HPH80		24VDC	11.5	H

* 1/2" NPT conduit and DIN coils offer NEMA Types 1, 2, 3, 4 and 4X protection with a suitable conduit installation or mating DIN connector and gasket.
** Not in list price book. Minimum order quantities may apply. Consult factory.

Additional Coil Options for Charts 1-6 (Below are replacement coils only; no enclosures except as noted)

Part Number	Type of Termination	Voltage	Wattage	Class
AFSB01	NEMA 1 Splice Box w/ 6" Leaded Coil	24/60	6	F
AFSB05		120/60, 110/50	6	F
AFSB15		240/60, 220/50	6	F
BFSB01*	NEMA 1 Splice Box w/ 6" Leaded Coil	24/60	10.2	F
BFSB05*		120/60, 110/50	10.2	F
BFSB15*		240/60, 220/50	10.2	F
CFSB01	NEMA 1 Splice Box w/ 6" Leaded Coil	24/60	11	F
CFSB05		120/60, 110/50	11	F
CFSB15		240/60, 220/50	11	F
DFSB01*	NEMA 1 Splice Box w/ 6" Leaded Coil	24/60	16	F
DFSB05		120/60, 110/50	16	F
DFSB15*		240/60, 220/50	16	F
1FSB75**	NEMA 1 Splice Box w/ 6" Leaded Coil	12 VDC	9.5	F
1FSB80		24 VDC	9.5	F
3FSB75	NEMA 1 Splice Box w/ 6" Leaded Coil	12 VDC	11.5	F
3FSB80		24 VDC	11.5	F

Part Number	Type of Termination	Voltage	Wattage	Class
AFEC01*	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60	6	F
AFEC05		120/60, 110/50	6	F
AFEC15		240/60, 220/50	6	F
BFEC01	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60	10.2	F
BFEC05		120/60, 110/50	10.2	F
BFEC15		240/60, 220/50	10.2	F
CFEC01*	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60	11	F
CFEC05		120/60, 110/50	11	F
CFEC15		240/60, 220/50	11	F
DFEC01*	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60	16	F
DFEC05		120/60, 110/50	16	F
DFEC15		240/60, 220/50	16	F
1FEC75*	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	12 VDC	9.5	F
1FEC80		24 VDC	9.5	F
3FEC75	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	12 VDC	11.5	F
3FEC80		24 VDC	11.5	F

* Not in list price book. Minimum order quantities may apply. Consult factory.

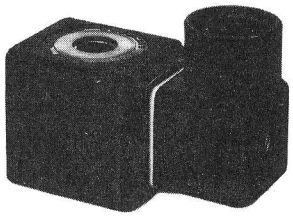
Additional Coil Options for Charts 1-6 Cont. (Below replacement coils only, no enclosures)

Part Number	Type of Termination	Voltage	Wattage	Class
AHEC01* AHEC05* AHEC15*	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60 120/60, 110/50 240/60, 220/50	6	H
BHEC01* BHEC05* BHEC15*	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60 120/60, 110/50 240/60, 220/50	10.2	H
CHEC01 CHEC05 CHEC15	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60 120/60, 110/50 240/60, 220/50	11	H
DHEC01 DHEC05 DHEC15	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	24/60 120/60, 110/50 240/60, 220/50	16	H
IHEC75 IHEC80	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	12 VDC 24 VDC	9.5	H
3HEC75 3HEC80	18" Leaded Coil for NEMA 7/9 hazardous location enclosure	12 VDC 24 VDC	11.5	H

* Not in list price book. Minimum order quantities may apply. Consult factory.

DIN Electrical Accessories for Charts 1-6

Part Number	Description
ELECD1	Cable Gland DIN Plug
ELECD2	1/2" Conduit DIN Plug

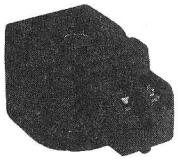


Integrated Coil Offering

	Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 7					
	C111B2	1/2" NPT Conduit / 18" Leads	24/60	10	F
	C111P3		120/60, 110/50		
	C111Q3		240/60, 220/50		
	C111C1		12VDC		
	C111C2		24VDC		
	C111C6		120VDC		
	C222B2	1/2" NPT Conduit / 18" Leads	24/60	10	H
	C222P3		120/60, 110/50		
	C222Q3		240/60, 220/50		
	C222C1		12VDC		
	C222C2		24VDC		
	C222C6		120VDC		
	D100B2	DIN 43650A/ISO 4400	24/60	10	F
	D100P3		120/60, 110/50		
	D100Q3		240/60, 220/50		
	D100C1		12VDC		
	D100C2		24VDC		
	D100C6**		120VDC		
	D200B2	DIN 43650A/ISO 4400	24/60	10	H
	D200P3		120/60, 110/50		
	D200Q3		240/60, 220/50		
	D200C1		12VDC		
	D200C2		24VDC		
	D200C6**		120VDC		

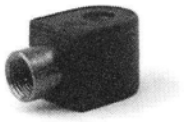
* 1/2" NPT conduit and DIN coils offer NEMA Types 1, 2, 3, 4 and 4X protection with a suitable conduit installation or mating DIN connector and gasket.
** Not in list price book. Minimum order quantities may apply. Consult factory.

Integrated Coil Offering

	Part Number	Type of Termination	Voltage	Wattage	Class
CHART 7 (Continued)					
	L111B2	18" Leads	24/60	10	F
	L111P3		120/60, 110/50		
	L111Q3		240/60, 220/50		
	L111C1		12VDC		
	L111C2		24VDC		
	L111C6*		120VDC		
	L222B2*	18" Leads	24/60	10	H
	L222P3		120/60, 110/50		
	L222Q3		240/60, 220/50		
	L222C1		12VDC		
	L222C2		24VDC		
	L222C6		120VDC		
	T100B2*	1/4" Tab (spade)	24/60	10	F
	T100P3		120/60, 110/50		
	T100Q3		240/60, 220/50		
	T100C1		12VDC		
	T100C2*		24VDC		
	T100C6*		120VDC		
	S100B2*	Screw Terminal	24/60	10	F
	S100P3		120/60, 110/50		
	S100Q3		220/50, 240/60		
	S100C1*		12VDC		
	S100C2		24VDC		
	S100C6		120VDC		
	S200B2	Screw Terminal	24/60	10	H
	S200P3		120/60, 110/50		
	S200Q3*		240/60, 220/50		
	S200C1*		12VDC		
	S200C2*		24VDC		
	S200C6*		120VDC		

* Not in list price book. Minimum order quantities may apply. Consult factory

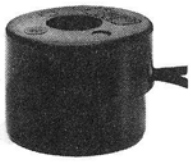
Integrated Coil Offering



Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 7 (Continued)				
H111B2**	UL Hazardous Locations NEMA Type 7/9 w/ 18" Leaded Coil	24/60	10	F
H111P3		120/160, 110/50		
H111Q3		240/60, 220/50		
H111C1		12VDC		
H111C2		24VDC		
H111C6**		120VDC		
H222B2**	UL Hazardous Locations NEMA Type 7/9 w/ 18" Leaded Coil	24/60	10	H
H222P3		120/60, 110/50		
H222Q3		240/60, 220/50		
H222C1**		12VDC		
H222C2		24VDC		
H222C6		120VDC		

* Hazardous location coil approvals: Class I, Div 1 & 2, Groups A, B, C, D; Class II, Div 1 & 2, Groups E,F,G;

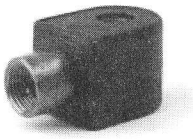
Additional Coil Options for Chart 7 (Below are replacement coils only, no enclosures)



Part Number	Type of Termination	Voltage	Wattage	Class
J111B2	Molded coil w/ 18" Leads	24/60	10	F
J111P3		120/60, 110/50		
J111Q3		240/60, 220/50		
J111C1		12VDC		
J111C2		24VDC		
J111C6**		120VDC		
J222B2**	Molded coil w/ 18" Leads	24/60	10	H
J222P3		120/60, 220/50		
J222Q3**		240/60, 220/50		
J222C1		12VDC		
J222C2**		24VDC		
J222C6**		120VDC		

** Not in list price book. Minimum order quantities may apply. Consult factory.

Integrated Coil Offering

CHART 8	Part Number	Type of Termination*	Voltage	Wattage	Class
	C322B2	1/2" NPT Conduit /18" Leads	24/60	22	H
	C322P3		120/60, 110/50		
	C322Q3		240/60, 220/50		
	C322C1		12VDC		
	C322C2		24VDC		
	C322C6**		120VDC		
	D300B2**	DIN 43650A/ISO 4400	24/60	22	H
	D300P3		120/60, 110/50		
	D300Q3		240/60, 220/50		
	D300C1		12VDC		
	D300C2		24VDC		
	D300C6**		120VDC		
	L322B2**	1/2" NPT Conduit /18" Leads	24/60	22	H
	L322P3		110/50, 120/60		
	L322Q3		220/50, 240/60		
	L322C1		12VDC		
	L322C2		24VDC		
	L322C6**		120VDC		
	S300B2**	Screw Terminal	24/60	22	H
	S300P3		120/60, 110/50		
	S300Q3**		240/60, 220/50		
	S300C1**		12VDC		
	S300C2**		24VDC		
	S300C6**		120VDC		

* 1/2" NPT conduit and DIN coils offer NEMA Types 1, 2, 3, 4 and 4X protection with a suitable conduit installation or mating DIN connector and gasket.
** Not in list price book. Minimum order quantities may apply. Consult factory.

Coil Options for Chart 8 cont. (Below replacement coils only, no enclosures)

Part Number	Type of Termination*	Voltage	Wattage	Class
H322B2	UL Hazardous Locations NEMA Type 7 & 9 w/ 18" Leaded Coil	24/60	22	H
H322P3		120/60, 110/50		
H322Q3		240/60, 220/50		
H322C1		12VDC		
H322C2		24VDC		
H322C6**		120VDC		

* Hazardous location coil approvals: Class I, Din I & 2, Groups A,B,C,D; Class II, Div 1 & 2, Groups E, F, G; Class IV, Div 1

** Not in list price book. Minimum order quantities may apply. Consult factory.

Additional Coil Options for Chart 8 (Below are replacement coils only, no enclosures)

Part Number	Type of Termination	Voltage	Wattage	Class
J322B2**	Molded coil w/ 18" Leads	24/60	22	H
J322P3		120/60, 110/50		
J322Q3**		240/60, 220/50		
J322C1		12VDC		
J322C2		24VDC		
J322C6**		120VDC		

* Hazardous location coil approvals: Class I, Din I & 2, Groups A,B,C,D; Class II, Div 1 & 2, Groups E, F, G; Class IV, Div 1

** Not in list price book. Minimum order quantities may apply. Consult factory.

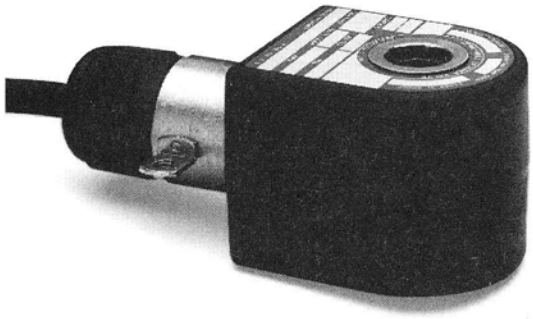
ATEX Explosion Proof Rated Coil Offering

Coil Code*	Wattage/ Cable Length	Protection/Temp. Class	Marking	Certificate of Conformity
HZ04xx	2w/3000mm	Ex mb II T6 tD A21 IP67 T80°C	CE 0344 Ex II 2 G / D	LCIE 02 ATEX 6019 X IECEx LCI 08.0026 X
HZ09xx	10w/3000mm	Ex d mb IIC T4/T5 -40°C +65°C/+40°C tD A21 IP65 T130°C/95 °F	CE 0344 Ex II 2 G / D	LCIE 02 ATEX 6009 X
HZ10xx	10w/3000mm	Ex mb II T4/T5 tD A21 IP65 T130°C / 95°C	CE 0344 Ex II 2 G / D	LCIE 02 ATEX 6020 X IECEx LCI 08.0027 X
HZ11xx	22w/3000mm	Ex mb II T4/T5 tD A21 IP65 T130°C / 95°C	CE 0344 Ex II 2 G / D	LCIE 02 ATEX 6020 X/03 IECEx LCI 08.0027 X
HZ12xx	1.5w/3000mm	Ex mb II T6 tD A21 IP65 T80°C	CE 0344 Ex II 2 G / D	LCIE 02 ATEX 6021 X IECEx LCI 08.0028 X
HZ13xx	0.6w/3000mm	Ex mb II T6 tD A21 IP65 T80°C	CE 0344 Ex II 2 G / D	LCIE 02 ATEX 6021 X IECEx LCI 08.0028 X
VZ03xx (492190)	11w(AC), 9w(DC) / screw terminal	Ex e mb II T3/T4/T5/T6 tD A21 IP66 T195°C / 130°C / 95°C / 80°C	CE 0081 Ex II 2 G / D	LCIE 02 ATEX 6023 X IECEx LCI 06.0011 X
495900 (HZ95xx)	3w/screw terminal	Ex d mb IIC T4 tD A21 IP67 T130°C	CE 0081 Ex II 2 G / D	LCIE 03 ATEX 6451 X IECEx LCI 06.0004X
495905 (HZ96xx)	9w/screw terminal	Ex d mb IIC /T4/T5/T6 tD A21 IP67 T130°C	CE 0081 Ex II 2 G / D	LCIE 03 ATEX 6451 X IECEx LCI 06.0004X
496555	6w/screw terminal	Ex d mb IIC T4 tD A21 IP67 T130°C	CE 0081 Ex II 2 G / D	LCIE 07 ATEX 6075 X IECEx LCI 07.0014 X
496560	9w/screw terminal	Ex d mb IIC T4 tD A21 IP67 T130°C	CE 0081 Ex II 2 G / D	LCIE 07 ATEX 6075 X IECEx LCI 07.0014 X

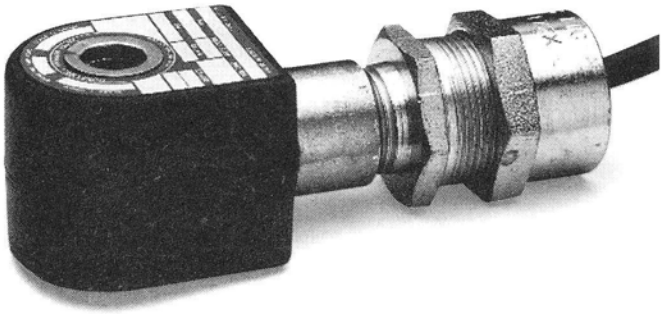
*For 24VDC use code C2 in place of xx.
For 120/60, use code P3 in place of xx.
For 240/60, 220/50 use code Q3 in place of xx.
For 230/50, use code F4 in place of xx.

Flow Factor ~ 216-765-4231

ATEX (IECEx) Coils

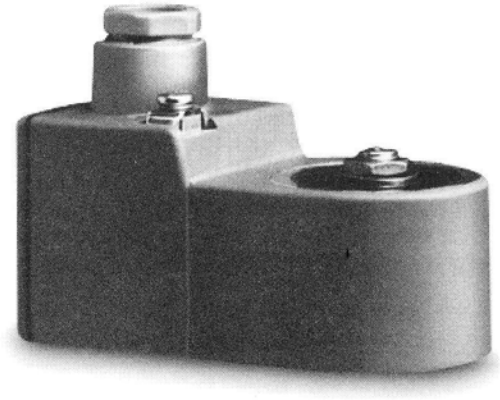


HZ04, HZ10, HZ11, HZ12, HZ13



HZ09

HZ95, HZ96



VZ03, 496555, 496560

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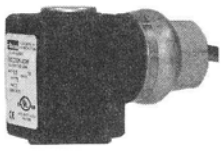
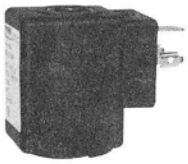
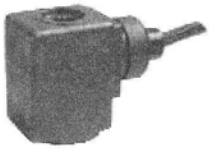
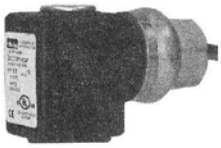
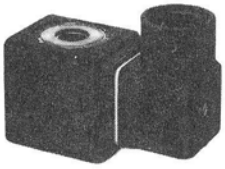
Integrated Coil Offering

	Part Number	Type of Termination*	Voltage	Wattage AC**	Wattage DC	Class
CHART 9						
	C4E	1/2" NPT Conduit w/ 18" Leads	24/60	10	8	F
	C4F		120/60, 110/50			
	C4G		240/60, 220/50			
	C4A		12VDC			
	C4B		24VDC			
	D6E	DIN 43650A/ISO 4400	24/60	10	8	H
	D6F		120/60, 110/50			
	D6G		240/60, 220/50			
	D6A		12VDC			
	D6B		24VDC			
	B4E	18" Leads	24/60	10	8	F
	B4F		120/60, 110/50			
	B4G		240/60, 220/50			
	B4A		12VDC			
	B4B		24VDC			
	C5E	1/2" NPT Conduit w/ 18" Leads	24/60	10	8	H
	C5F		120/60, 110/50			
	C5G		240/60, 220/50			
	C5A		12VDC			
	C5B		24VDC			

* 1/2" NPT conduit and DIN coils offer NEMA Types 1, 2, 3, 4 and 4X protection with a suitable conduit installation or mating DIN connector and gasket.
** 2-Way Normally Closed AC Valves are 8.5 Watts (20CCxx)

Electrical Accessories for Chart 9

Coil Option Picture	Accessory Part #	Coil Option Code	Description	Coil Types	Coil Codes
	ELECD1	D6x*	Cable Gland DIN Plug	DIN	D6E, D6F, D6G, D6A, D6B
	ELECD2	D6x*	1/2" Conduit DIN Plug	DIN	D6E, D6F, D6G, D6A, D6B

* The plug comes complete with gasket.

2-Way/3-Way Miniature and Manifold Mounted Valves Using Coil Chart 9
Part Numbering Information: Reference ONLY.

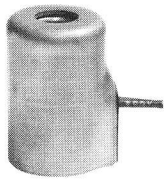
1 Service Type	2 Design Style	3 Body Material	4 Function	5 & 6 Port	7 Orifice Size
2 2 Way	0 Direct Acting	B Brass	C Normally Closed	02 1/8" NPT	A 1/32
3 3 Way		C 303 Stainless	F Normally Open	L5 3/4-24 Manifold Mount Cartridge	E 3/64
		9 Manifold Mount Cartridge	U Universal	04 1/4" NPT	G 1/16
					J 5/64
					L 3/32
					M 7/64
					P 1/8
					Q 5/32

ALERT: Table is for interpreting product specifications only.

Consult Parker Fluid Control Division for avaliable combinations not shown in this catalog.

Viton™ is a Dupont Co. Trademark.
Teflon™ is a Dupont Co. Trademark.

Additional Coil Options for Charts 9 (Coils ordered will be assembled to the pressure vessel)

	Part Number	Type of Termination	Voltage	Wattage AC*	Wattage DC	Class
	B2E	Grommet Housing w/ Taped Coil w/ 18" Leads	24/60	10	8	F
	B2F		120/60, 110/50			
	B2G		240/60, 220/50			
	B2A		12VDC			
	B2B		24VDC			
	L2E	Molded Coil with 18" Leads and Yoke	24/60Hz	10	8	F
	L2F		120/60, 110/50			
	L2G		240/60, 220/50			
	L2A		12VDC			
	L2B		24VDC			
	T2E	Molded Coil with 1/4" Tab and Yoke	24/60	10	8	F
	T2F		120/60, 110/50			
	T2G		240/60, 220/50			
	T2A		12VDC			
	T2B		24VDC			

* Wattage is 8.5 on all 2-Way, Normally Closed (20CCxx) AC valves

Integrated Coil Offering

	Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 10					
	C8GLB2***	1/2" NPT Conduit w/ 18" Leads	24/60	24	H
	C8GLP3		120/60, 110/50		
	C8GLQ3		240/60, 220/50		
	D800B2***	DIN 43650A/ISO 4400	24/60	24	H
	D800P3***		120/60, 110/50		
	D800Q3***		240/60, 220/50		
	H8GLB2	UL Hazardous Locations; NEMA Types 7 & 9 w/ 18" Leads**	24/60	24	H
	H8GLP3		120/60, 110/50		
	H8GLQ3		240/60, 220/50		

LOW POWER COILS

	Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 11					
	H611C2***	UL Hazardous TYPE 7 & 9	24VDC	1.5	F

ULTRA LOW POWER COILS

	Part Number	Type of Termination*	Voltage	Wattage	Class
CHART 12					
	C711C2	1/2" NPT Conduit Type 4X	24VDC	0.6	F
	H711C2	UL Hazardous TYPE 7 & 9	24VDC	0.6	F

* 1/2" NPT conduit and DIN coils offer NEMA Types 1, 2, 3, 4 and 4X protection with a suitable conduit installation or mating DIN connector and gasket.

** Hazardous location coil approvals: Class I, Div 1 & 2, Groups A, B, C, D: Class II, Div 1 & 2, Groups E, F, G: Class III, Div I.

*** Not in list price book. Minimum order quantities may apply. Consult factory.

General Data-Solenoid Coils

Power and Voltage

All coils used in Parker FCD solenoid valves are designed for continuous duty except where noted. On AC, inrush current occurs at the moment the solenoid is energized. The continuous current after inrush is holding current. Typical AC current values are shown to the right. DC solenoids have no inrush. Typical amp ratings for DC are determined by dividing DC watts by DC voltage. All Parker FCD solenoid valves are tested to operate at 15% under-voltage and full pressure ratings. AC and DC voltage ratings (nominal) and normal operating ranges, as shown in the following table, are standard. For special voltages, consult the factory.

AC/DC Voltage Range

All coils used in Parker FCD valves are designed for continuous duty except where noted. They can remain energized continuously without damage from overheating or mechanical failure. AC and DC voltage ratings (nominal) and normal operating ranges, as shown in the following table, are standard.

All coils used in Parker FCD solenoid valves are either Class "F" or Class "H" molded epoxy, and are constructed in accordance with UL, IEEE, NEMA and other accepted standards.

Holding and Inrush Current (Reference coil charts 1-5 in coil section)

Small, Direct-Acting 2-Way, 3-Way and 4-Way Series 20, 30, 35, 38, and 48 (1/8 to 3/8")Watt Rating and Volt Amperage

Standard Coil Insulation Class	AC		
	Watts	VA Holding	VA Inrush
F	6	16	26
F	10.2	23	37
F	11	20	34
F	16	31	50

2-Way, Direct-Acting Series 20 (3/8 to 3/4") Watt Rating and Volt Amperage

Standard Coil Insulation Class	AC		
	Watts	VA Holding	VA Inrush
F	6	16	36
F	11	20	61
F	16	31	88

Pilot 2-Way Series 22, 23, 24, 25, 26, 28, (3/8 to 1-1/2") Watt Rating and Volt Amperage

Standard Coil Insulation Class	AC		
	Watts	VA Holding	VA Inrush
F (Offset Pilot)	6	16	26
F (Center Pilot)	6	16	34
F	11	20	53
F	16	31	76

AC		DC	
Normal Voltage Rating	Normal Operating Range	Normal Voltage Rating	Normal Operating Range
24	20-24	12	10.2-12.6
120	102-120	24	20-25
240	204-240	120	102-126

Current Drain

To determine approximate Holding or Inrush Current for 24/60, 120/60, 240/60 and 480/60 volts in amperes, divide the voltage into the "VA" indicated in the table on this page.

DC Inrush/Holding Current (Amperes)

Coil Type		12 Volt	24 Volt
10 Watt	**Integrated** **Conventional**	**0.81** **0.73**	**0.41** **0.39**
16 Watt	**DIN**	**1.3**	**0.64**
22 Watt	**Integrated**	**1.64** **1.85**	**0.83** **0.86**
8 Watt	**Integrated** **Conventional**	**0.67**	**0.33**
16 Watt	**DIN**	**1.3**	**0.64**

Coil Reference