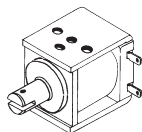


NUMBER 2



NUMBER 2HD

NUMBER 2 AC OR DC

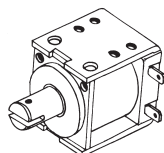
Box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 13 ounces. L=1.54", W=1.57", H=1.62".

Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
2-I-12D	5.8	125 oz. @ 1/16"	5 oz. @ 1"	\$18.12
2-C-12D	14.6	95 oz. @ 1/16"	1 oz. @ 1"	18.12
2-I-24D	22.6	125 oz. @ 1/16"	5 oz. @ 1"	18.12
2-C-24D	71	95 oz. @ 1/16"	1 oz. @ 1"	18.12
2-I-120A	45	54 oz. @ 1/8"	15 oz. @ 3/4"	21.33
2-C-120A	140	20 oz. @ 1/8"	6 oz. @ 3/4"	21.33

NUMBER 2HD AC OR DC

Heavy duty box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 15 ounces. L=1.70", W=1.57", H=1.68".

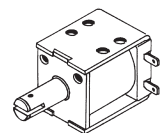
Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
2HD-I-12D	5.8	125 oz. @ 1/16"	5 oz. @ 1"	\$22.59
2HD-C-12D	18.1	100 oz. @ 1/16"	1 oz. @ 1"	22.59
2HD-I-24D	22.6	125 oz. @ 1/16"	5 oz. @ 1"	22.59
2HD-C-24D	71	100 oz. @ 1/16"	1 oz. @ 1"	22.59
2HD-I-120A	42	64 oz. @ 1/8"	20 oz. @ 3/4"	24.06
2HD-C-120A	101	26 oz. @ 1/8"	9 oz. @ 3/4"	24.06



NUMBER 3HD AC OR DC

Heavy duty box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 14 ounces. L=1.74", W=1.57", H=1.62".

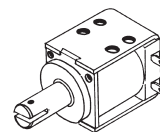
Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
3HD-I-12D	5.45	150 oz. @ 1/16"	5 oz. @ 1"	\$16.79
3HD-C-12D	16.7	115 oz. @ 1/16"	2 oz. @ 1"	16.79
3HD-I-24D	21.1	150 oz. @ 1/16"	5 oz. @ 1"	16.79
3HD-C-24D	65.8	115 oz. @ 1/16"	2 oz. @ 1"	16.79
3HD-I-120A	23	88 oz. @ 1/8"	8 oz. @ 1"	18.35
3HD-C-120A	100	26 oz. @ 1/8"	7 oz. @ 1"	38.85



NUMBER 4 AC OR DC

Box-Frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 16 ounces. L=1.98", W=1.57", H=1.62".

Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
4-I-12D	3.96	140 oz. @ 1/16"	20 oz. @ 1"	\$25.22
4-C-12D	15.8	100 oz. @ 1/16"	1 oz. @ 1"	25.22
4-I-24D	15.8	140 oz. @ 1/16"	20 oz. @ 1"	25.22
4-C-24D	61.3	100 oz. @ 1/16"	1 oz. @ 1"	25.22
4-I-120A	37	38 oz. @ 1/8"	46 oz. @ 1"	24.09
4-C-120A	133	10 oz. @ 1/8"	12 oz. @ 1"	24.09



NUMBER 4HD AC OR DC

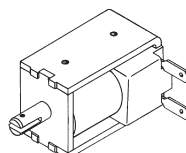
Heavy duty box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 18 ounces. L=2.17", W=1.57", H=1.62".

Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
4HD-I-12D	4.68	165 oz. @ 1/16"	20 oz. @ 1"	\$23.54
4HD-C-12D	14.8	125 oz. @ 1/16"	5 oz. @ 1"	23.54
4HD-I-24D	18.9	165 oz. @ 1/16"	20 oz. @ 1"	23.54
4HD-C-24D	57.5	125 oz. @ 1/16"	5 oz. @ 1"	23.54
4HD-I-110D	1200	165 oz. @ 1/16"	20 oz. @ 1"	23.54
4HD-C-110D	350	125 oz. @ 1/16"	5 oz. @ 1"	23.54
4HD-I-120A	19.3	70 oz. @ 1/8"	66 oz. @ 1"	31.74
4HD-C-120A	73	20 oz. @ 1/8"	24 oz. @ 1"	31.74

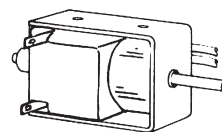
SPRING KITS FOR SOLENOIDS

Kit contains an assortment of springs and replacement plungers, ideal for all aspects of product design and development, as well as modification of manufacturing designs.

Cat. No.	For Model Solenoid:	Net Price
A490-367461-00	2 DC	\$9.98
A490-367461-00	2HD DC	9.98
A490-367461-02	3HD DC	9.98
A490-367461-03	4 DC	9.98
A490-367461-04	4HD DC	9.98
A490-367462-00	2 AC	9.98
A490-367462-00	2HD AC	9.98
A490-367462-01	3HD AC	9.98
A490-367462-02	4 AC	9.98
A490-367462-03	4HD AC	9.98



PULL TYPE



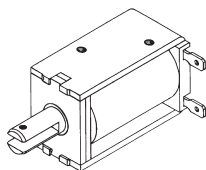
PUSH TYPE

NUMBER 11 AC OR DC

Box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 8 ounces. L=1.84", W=0.94", H=1.19".

Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
PULL TYPE				
11-I-6D	1.88	62 oz. @ 1/16"	5 oz. @ 1"	\$16.02
11-C-6D	4.69	35 oz. @ 1/16"	1 oz. @ 1"	16.02
11-I-12D	7.5	62 oz. @ 1/16"	5 oz. @ 1"	16.02
11-C-12D	18.4	35 oz. @ 1/16"	1 oz. @ 1"	16.02
11-I-24D	29.1	62 oz. @ 1/16"	5 oz. @ 1"	16.02
11-C-24D	93.1	35 oz. @ 1/16"	1 oz. @ 1"	16.02
11-I-24A	3.5	24 oz. @ 1/8"	8 oz. @ 1"	16.33
11-C-24A	9	13 oz. @ 1/8"	4 oz. @ 1"	16.32
11-I-120A	85	24 oz. @ 1/8"	8 oz. @ 1"	16.75
11-C-120A	225	13 oz. @ 1/8"	4 oz. @ 1"	16.75
PUSH TYPE				
11P-I-12D	1.88	62 oz. @ 1/16"	5 oz. @ 1"	17.37
11P-C-12D	4.69	35 oz. @ 1/16"	1 oz. @ 1"	17.37
11P-I-24D	7.5	62 oz. @ 1/16"	5 oz. @ 1"	17.37
11P-C-24D	18.4	35 oz. @ 1/16"	1 oz. @ 1"	17.37
11P-I-120A	85	24 oz. @ 1/8"	8 oz. @ 1"	24.09
11P-C-120A	225	13 oz. @ 1/8"	4 oz. @ 1"	24.09

NOTE: A = AC Volts; D = DC Volts; I = Intermittent Duty;
C = Continuous Duty

**NUMBER 11HD AC OR DC**

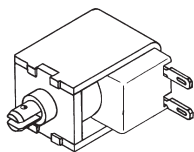
Heavy duty box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 12 ounces. L=2.00", W=0.94", H=1.25".

Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
11HD-I-12D	7.78	110 oz. @ 1/16"	5 oz. @ 1"	\$18.65
11HD-C-12D	19	70 oz. @ 1/16"	1 oz. @ 1"	18.65
11HD-I-24D	29.3	110 oz. @ 1/16"	5 oz. @ 1"	18.65
11HD-C-24D	76.3	70 oz. @ 1/16"	1 oz. @ 1"	18.65
11HD-I-120A	75	24 oz. @ 1/8"	7 oz. @ 1"	24.28
11HD-C-120A	165	12 oz. @ 1/8"	3 oz. @ 1"	24.27

SPRING KITS FOR SOLENOIDS

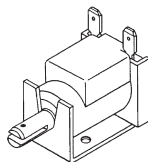
Kit contains an assortment of springs and replacement plungers, ideal for all aspects of product design and development, as well as modification of manufacturing designs.

Cat. No.	For Model Solenoid:	Net Price
A490-367461-05	11 DC	\$9.98
A490-367461-06	11HD DC	9.98
A490-367461-07	22 DC	7.48
A490-367461-08	28 DC	9.98
A490-367462-08	23HD AC	9.98
A490-367461-10	11P	9.98
A490-367461-11	28P	9.98
A490-367462-04	11 AC	9.98
A490-367462-05	11HD AC	9.98
A490-367462-06	22 AC	7.48
A490-367462-07	28 AC	9.98
A490-367461-09	28HD AC	9.98

**NUMBER 22 AC OR DC**

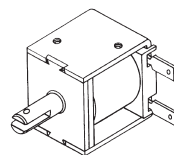
Box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 6 ounces. L=1.13", W=0.75", H=0.75".

Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
22-I-12D	22.6	20 oz. @ 1/16"	1 oz. @ 1/2"	\$10.54
22-C-12D	45.7	13 oz. @ 1/16"	1 oz. @ 1/2"	10.54
22-I-24D	93.2	20 oz. @ 1/16"	1 oz. @ 1/2"	10.54
22-C-24D	182	13 oz. @ 1/16"	1 oz. @ 1/2"	10.54
22-I-120A	576	8 oz. @ 1/16"	2 oz. @ 1/2"	17.46
22-C-120A	970	7 oz. @ 1/16"	2 oz. @ 1/2"	17.46

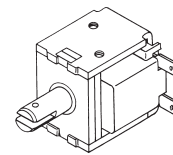
**NUMBER 24 AC OR DC**

Open frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 6 ounces. L=1.23", W=0.91", H=1.11".

Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
24-I-12D	13.8	22 oz. @ 1/16"	1 oz. @ 1/2"	\$15.84
24-C-12D	35.5	15 oz. @ 1/16"	1 oz. @ 1/2"	15.84
24-I-24D	53.9	22 oz. @ 1/16"	1 oz. @ 1/2"	15.84
24-C-24D	137	15 oz. @ 1/16"	1 oz. @ 1/2"	15.84
24-I-120A	310	18 oz. @ 1/16"	2 oz. @ 1/2"	18.01
24-C-120A	500	10 oz. @ 1/16"	2 oz. @ 1/2"	18.01



NUMBER 28



NUMBER 28HD

NUMBER 28 AC OR DC

Box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 9 ounces. L=1.13", W=0.94", H=1.19".

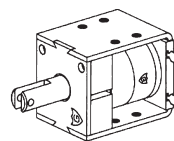
Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
PULL TYPE				
28-I-12D	11.9	32 oz. @ 1/16"	2 oz. @ 1/2"	\$12.73
28-C-12D	29.8	25 oz. @ 1/16"	1 oz. @ 1/2"	12.73
28-I-24D	47.4	32 oz. @ 1/16"	2 oz. @ 1/2"	12.73
28-C-24D	116	25 oz. @ 1/16"	1 oz. @ 1/2"	12.73
28-I-120A	220	18 oz. @ 1/8"	5 oz. @ 1/2"	17.06
28-C-120A	410	11 oz. @ 1/8"	5 oz. @ 1/2"	17.06

PUSH TYPE				
28P-I-12D	11.9	32 oz. @ 1/16"	2 oz. @ 1/2"	15.37
28P-C-12D	29.8	25 oz. @ 1/16"	1 oz. @ 1/2"	15.37
28P-I-24D	47.4	32 oz. @ 1/16"	2 oz. @ 1/2"	15.37
28P-C-24D	116	25 oz. @ 1/16"	1 oz. @ 1/2"	15.37
28P-I-120A	220	18 oz. @ 1/8"	5 oz. @ 1/2"	21.11
28P-C-120A	410	11 oz. @ 1/8"	5 oz. @ 1/2"	21.11

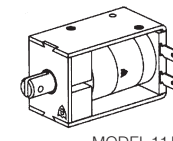
NUMBER 28HD AC OR DC

Heavy duty box-frame solenoid. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. Termination: 0.187" QC. Shipping weight 14 ounces. L=1.23", W=0.94", H=1.25".

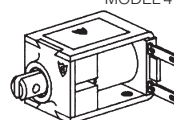
Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
28HD-I-12D	12.2	75 oz. @ 1/16"	5 oz. @ 1/2"	\$21.30
28HD-C-12D	30.1	30 oz. @ 1/16"	1 oz. @ 1/2"	21.30
28HD-I-24D	49	75 oz. @ 1/16"	5 oz. @ 1/2"	21.30
28HD-C-24D	119	30 oz. @ 1/16"	1 oz. @ 1/2"	21.30
28HD-I-120A	173	24 oz. @ 1/8"	5 oz. @ 1/2"	20.63
28HD-C-120A	375	12 oz. @ 1/8"	5 oz. @ 1/2"	20.63



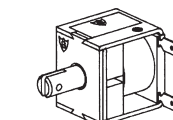
MODEL 4 L



MODEL 11 L



MODEL 22 L



MODEL 28 L

MAGNETIC LATCHING SOLENOIDS

Magnetic latching solenoid hold plunger in seated position without requiring constant power. Insulation material Class "A" (110°C). Coil construction: Uni-Guard II molded bobbin and coil cover. **MODEL 4L:** L=1.98", W=1.44", H=1.62". **MODEL 11L:** L=1.84", W=0.94", H=1.19". **MODEL 22L:** L=1.13", W=0.75", H=0.75". **MODEL 28L:** L=1.13", W=0.94", H=1.19".

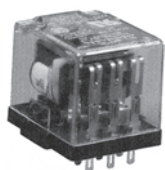
Cat. No.	Ohms	Lifts and Strokes @ 25°C		Net Price
		(Minimum)	(Maximum)	
4L-C-6D	6.4	100 oz. @ 1/16"	1 oz. @ 1"	\$58.21
4L-C-12D	25.5	100 oz. @ 1/16"	1 oz. @ 1"	58.21
4L-C-24D	102	100 oz. @ 1/16"	1 oz. @ 1"	58.21
11L-C-6D	9.1	35 oz. @ 1/16"	1 oz. @ 1"	40.53
11L-C-12D	36.5	35 oz. @ 1/16"	1 oz. @ 1"	40.53
11L-C-24D	146	35 oz. @ 1/16"	1 oz. @ 1"	40.53
22L-C-6D	7.5	24 oz. @ 1/16"	8 oz. @ 1/2"	40.53
22L-C-12D	30	24 oz. @ 1/16"	4 oz. @ 1/2"	40.53
22L-C-24D	120	24 oz. @ 1/16"	8 oz. @ 1/2"	40.53
28L-C-6D	6	45 oz. @ 1/16"	4 oz. @ 1/2"	40.53
28L-C-12D	24	45 oz. @ 1/16"	8 oz. @ 1/2"	40.53
28L-C-24D	96	45 oz. @ 1/16"	4 oz. @ 1/2"	40.53

**NOTE: A = AC Volts; D = DC Volts; I = Intermittent Duty;
C = Continuous Duty**

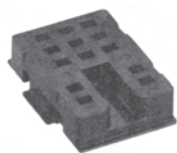
SPRING KITS FOR SOLENOIDS

Kit contains an assortment of springs and replacement plungers, ideal for all aspects of product design and development, as well as modification of manufacturing designs.

Cat. No.	For Model Solenoid:	Net Price
A490-367460-08	T3.5X9	\$7.48
A490-367460-07	T4X7	7.48
A490-367460-06	T4X12	7.48
A490-367460-05	T4X16	7.48
A490-367460-04	T6X12	9.98
A490-367460-03	T8X9	11.22
A490-367460-02	T8X16	13.09
A490-367460-01	T12X13	15.59
A490-367460-00	T12X19	15.59
A490-367460-26	LT3.5X9	7.48
A490-367460-25	LT4X7	7.48
A490-367460-24	LT4X12	7.48
A490-367460-23	LT4X16	7.48
A490-367460-22	LT6X12	9.98
A490-367460-21	LT8X9	11.22
A490-367460-20	LT8X16	13.09
A490-367460-19	LT12X13	15.59
A490-367460-18	LT12X19	15.59
A490-367460-17	TP3.5X9	7.48
A490-367460-16	TP4X7	7.48
A490-367460-15	TP4X12	7.48
A490-367460-14	TP4X16	7.48
A490-367460-13	TP6X12	9.98
A490-367460-12	TP8X9	11.22
A490-367460-11	TP8X16	13.09
A490-367460-10	TP12X13	15.59
A490-367460-09	TP12X19	15.59



RELAYS

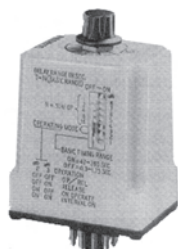


SOCKETS

10 AMP ENCLOSED RELAYS SERIES 1220/1225

Contacts are rated for 10 amps at 120VAC non-inductive. 2 or 3 PDT switch capacity. Contacts are fine silver/gold flash.

Cat. No.	Coil Voltage	Coil Resistance	Contact Combination	Net Price
AC VOLTS				
1220-2C-24A	24VAC	54	DPDT	\$38.18
1220-3C-24A	24VAC	54	3PDT	50.11
1220-2C-120A	120VAC	1110	DPDT	41.50
1220-3C-120A	120VAC	1110	3PDT	53.31
1220-2C-240A	240VAC	5000	DPDT	42.15
1220-3C-240A	240VAC	5000	3PDT	54.09
DC VOLTS				
1225-2C-12D	12VDC	75	DPDT	47.02
1225-3C-12D	12VDC	75	3PDT	59.25
1225-2C-24D	24VDC	300	DPDT	47.97
1225-3C-24D	24VDC	300	3PDT	59.90
1225-2C-110D	110VDC	6500	DPDT	51.47
1225-3C-110D	110VDC	6500	3PDT	63.35



TIME DELAY RELAY PET 1481-B

Drop-in replacement for PET 1481 and PET 1481-A. Standard 11 pin base. Overall height of 4.0".

Cat. No.	Description	Net Price
PET1481-B	Time delay relay (field programmable).	\$175.52



1310



1390

SOCKETS FOR RELAY SERIES 1310/1315/1390

Cat. No.	Description	Net Price
1310/1390HDC	For models 1310 or 1390	\$6.60
1390H-2PC	For model 1390H	2.06
1310-IST	Solder lug base	2.18
1310H-2PC	Printed circuit base fp	2.50

ENCLOSED RELAYS

Contacts are rated for 10 amps at 120VAC non-inductive. 2 or 3 PDT switch capacity. Contacts are fine silver/gold flash.

Cat. No.	Coil Voltage	Coil Resistance	Contact Combination	Net Price
1360PC-2C-120A	120VAC	3500	DPDT	\$65.49
1365PC-2C-12D	12VDC	150	DPDT	50.58
1365PC-2C-24D	24VDC	600	DPDT	50.58
1310H-4C-12A	12VAC	45	4PDT	6.91
1310H-4C-24A	24VAC	170	4PDT	6.91
1310H-4C-120A	120VAC	4500	4PDT	6.91
1310HP-4C-12A	12VAC	45	4PDT	6.91
1310HP-4C-24A	24VAC	170	4PDT	6.91
1310HP-4C-120A	120VAC	4500	4PDT	6.91
1315H-4C-12D	12VDC	160	4PDT	6.58
1315H-4C-24D	24VDC	650	4PDT	6.58
1315H-4C-110D	110VDC	11000	4PDT	6.57
1315HP-4C-12D	12VDC	160	4PDT	6.58
1315HP-4C-24D	24VDC	650	4PDT	6.58
1390H-2C-12A	12VAC	41	DPDT	6.10
1390H-2C-24A	24VAC	180	DPDT	6.10
1390H-2C-120A	120VAC	4500	DPDT	6.10
1390HP-2C-24A	24VAC	180	DPDT	6.10
1390HP-2C-120A	120VAC	4500	DPDT	6.10
1390JPVS-2C-12A	12VAC	41	DPDT	7.08
1390JPVS-2C-24A	24VAC	180	DPDT	7.08
1390JPVS-2C-120A	120VAC	4500	DPDT	7.08
1395H-2C-12D	12VDC	160	DPDT	5.79
1395H-2C-24D	24VDC	650	DPDT	5.79
1395H-2C-110D	110VDC	12000	DPDT	5.79
1395HP-2C-12D	12VDC	160	DPDT	5.79
1395HP-2C-24D	24VDC	650	DPDT	5.79
1395HP-2C-110D	110VDC	12000	DPDT	5.79
1395JPVS-2C-12D	12VDC	160	DPDT	6.77
1395JPVS-2C-24D	24VDC	650	DPDT	6.77
1495ES-2C-5D	5VDC	36	DPDT	3.82
1495ES-2C-6D	5VDC	70	DPDT	3.82
1495ES-2C-12D	12VDC	280	DPDT	3.82
1495ES-2C-24D	24VDC	1050	DPDT	3.82
1505HS-1C-12D	12VDC	400	SPDT	2.21
1505HS-1C-24D	24VDC	1600	SPDT	2.21
1655HS-1C-6D	6VDC	68	SPDT	6.23
1655HS-1C-12D	12VDC	275	SPDT	6.23
1655HS-1C-24D	24VDC	1100	SPDT	6.24
1665HS-2C-6D	6VDC	68	DPDT	7.12
1665HS-2C-12D	12VDC	275	DPDT	7.12
1665HS-2C-24D	24VDC	1100	DPDT	7.12
1715HS-1C-6D	6VDC	80	SPDT	3.68
1715HS-1C-12D	12VDC	320	SPDT	3.68
1715HS-1C-24D	24VDC	1150	SPDT	3.68
1726HS-1C-6D	6VDC	100	SPDT	3.56
1726HS-1C-12D	12VDC	400	SPDT	3.56
1726HS-1C-24D	24VDC	1600	SPDT	3.56

NOTE: A = AC Volts; D = DC Volts; I = Intermittent Duty;
C = Continuous Duty