

L = 1-1/8
W = 55/64
H = 1-17/64
.187 QUICK CONNECT/
SOLDER TERMINALS

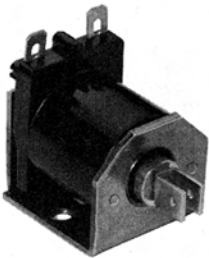
NOTE: Standard intermittent duty cycle at nominal voltage is one (1) minute on and three (3) minutes off.

C-6 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53685-83	24VDC	Cont.	124	4.7W
53686-83	24VDC	Int.	50.8	12W
53687-94	120VAC	Cont.	776	6.8VA
53688-94	120VAC	Int.	327	19.6VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4
DC Cont.	7	3	2	1-1/2
DC Int.	15	8	5	3-1/2
AC Cont.	10	7	5	4
AC Int.	21	13	11	8



L = 1-9/64
W = 1-1/16
H = 1-13/32
.187 QUICK CONNECT/
SOLDER TERMINALS

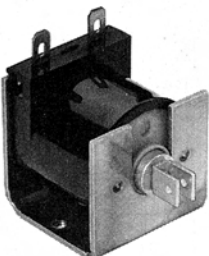
NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

C-7 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53634-83	24VDC	Cont.	118	5W
53635-83	24VDC	Int.	.5	11.5W
53637-94	120VAC	Cont.	509	7.8VA
53638-94	120VAC	Int.	220	21VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4
DC Cont.	19	8	5	3
DC Int.	28	12	8	5
AC Cont.	17	12	10	8
AC Int.	30	22	19	17



L = 1-3/16
W = 1-9/32
H = 1-11/16
.187 QUICK CONNECT/
SOLDER TERMINALS

NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

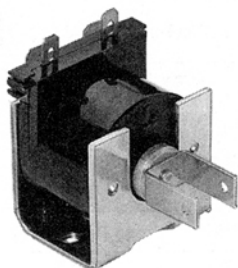
C-8 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53713-82	24VDC	Cont.	93.3	6.5W
53713-88	24VDC	Int.	37.5	16W
53712-84	120VAC	Cont.	346	9.5VA
53712-90	120VAC	Int.	151	25VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4
DC Cont.	20	11	7	5
DC Int.	42	27	19	14
AC Cont.	16	11	10	9
AC Int.	32	24	21	20

ALL DIMENSIONS ARE NOMINAL.



L = 1-1/16
W = 1-3/8
H = 1-13/16
.187 QUICK CONNECT/
SOLDER TERMINALS

NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off. AC intermittent duty cycle is one (1) minute on and four (4) minutes off. Approx. 10 sq. in. heat sink required.

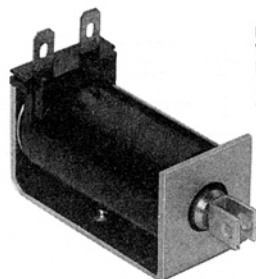
minutes off. Approx. 10 sq. in. heat sink required.

C-9 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53673-94	120VAC	Cont.	240	13.7VA
53674-94	120VAC	Int.	84.1	52VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2
DC Cont.	26	17	12	9	3
DC Int.	42	28	22	16	5
AC Cont.	21	16	15	14	10
AC Int.	54	43	39	37	27



L = 1-3/4
W = 27/32
H = 59/64 (1-25/64 max.)
.187 QUICK CONNECT/
SOLDER TERMINALS

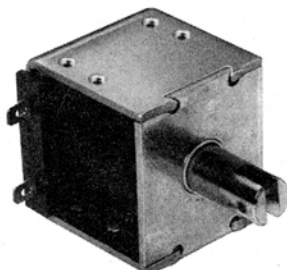
NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off. Approx. 10 sq. in. heat sink required.

C-15 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53682-83	24VDC	Cont.	77.3	7.4W
53683-83	24VDC	Int.	30.6	19W
53679-94	120VAC	Cont.	302	12VA
53680-94	120VAC	Int.	166	26VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	3/8	1/2
DC Cont.	29	16	10	7	4	3
DC Int.	44	30	23	17	10	7
AC Cont.	15	10	9	8	7	7
AC Int.	26	18	15	14	13	12



L = 1-9/16
W = 1-7/16
H = 1-5/8

NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

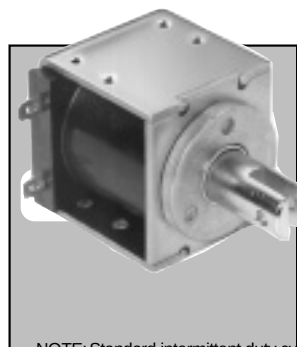
D-2 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53728-81	12VDC	Cont.	13.6	10.5W
53728-82	24VDC	Cont.	54.7	10.5W
53728-87	12VDC	Int.	4.92	29W
53728-88	24VDC	Int.	20.0	29W
53729-84	120VAC	Cont.	139	13VA
53729-90	120VAC	Int.	47.0	44VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2	3/4
DC Cont.	84	50	34	23	8	4
DC Int.	122	97	74	56	21	9
AC Cont.	27	20	17	16	14	5
AC Int.	69	56	50	45	36	15

ALL DIMENSIONS ARE NOMINAL.



L = 1-3/4
W = 1-7/16
H = 1-5/8

NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

D-3HD PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53732-81	12VDC	Cont.	12.8	11.2W
53732-82	24VDC	Cont.	51.5	11.2W
53732-87	12VDC	Int.	5.3	27W
53732-88	24VDC	Int.	21.4	27W
53733-84	120VAC	Cont.	109	20VA
53733-90	120VAC	Int.	27	115VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2	3/4
DC Cont.	110	72	45	31	10	4
DC Int.	150	124	96	72	25	10
AC Cont.	35	26	23	22	21	13
AC Int.	112	88	80	78	68	40



L = 2
W = 1-7/16
H = 1-5/8

NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

D-4 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53717-81	12VDC	Cont.	12.3	11.5W
53717-82	24VDC	Cont.	50.4	11.5W
53717-87	12VDC	Int.	3.0	47.6W
53717-88	24VDC	Int.	12.3	47.6W
53718-84	120VAC	Cont.	133	11.5VA
53718-90	120VAC	Int.	37	60VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2	3/4
DC Cont.	94	66	46	34	14	7
DC Int.	142	122	106	92	52	30
AC Cont.	12	10	9	9	10	13
AC Int.	44	38	34	32	38	46



L = 2-3/16
W = 1-7/16
H = 1-5/8

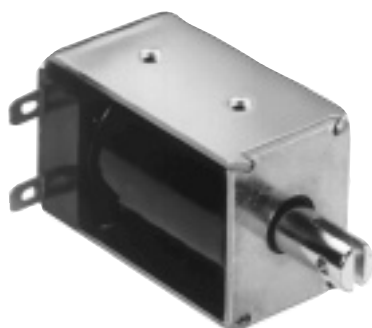
NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

D-4HD PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53719-81	12VDC	Cont.	12.1	11.7W
53719-82	24VDC	Cont.	49.2	11.7W
53719-87	12VDC	Int.	3.8	38W
53719-88	24VDC	Int.	15.2	38W
53720-84	120VAC	Cont.	72.4	32VA
53720-90	120VAC	Int.	19.1	170VA

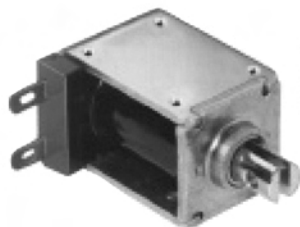
STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2	3/4
DC Cont.	116	85	60	42	16	8
DC Int.	160	136	114	98	46	26
AC Cont.	24	20	19	18	21	24
AC Int.	84	72	64	60	66	76



L = 1-27/32
W = 15/16
H = 1-3/16
.187 QUICK CONNECT/
SOLDER TERMINALS

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53736-81	12VDC	Cont.	18	8W
53736-82	24VDC	Cont.	72	8W
53736-87	12VDC	Int.	8	18W
53736-88	24VDC	Int.	32	18W
53738-84	120VAC	Cont.	200	12VA
53738-90	120VAC	Int.	85	42VA



L = 1-1/4
W = 3/4
H = 3/4
.187 QUICK CONNECT/
SOLDER TERMINALS

NOTE: Standard intermittent duty cycle at nominal voltage is 25% with three (3) minutes max.on and nine (9) minutes min.off in a repetitive cycle. Approx. 10 sp.in. heat sink required.

D-22 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53723-81	12VDC	Cont.	35	4.2W
53723-82	24VDC	Cont.	141	4.2W
53724-84	120VAC	Cont.	1,090	6.5VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	3/8
DC Cont.	9	4	2-1/2	1-3/4	1
DC Int.	20	10	6	4	2
AC Cont.	6	3-1/2	2-3/4	2-1/2	1-3/4
AC Int.	8-1/2	5-1/2	4	3-1/2	2-1/2



L = 1-1/4
W = 1
H = 1-7/32
.187 QUICK CONNECT/
SOLDER TERMINALS

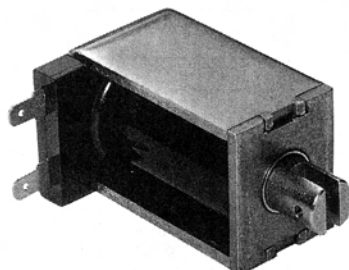
NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

D-28 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53708-81	12VDC	Cont.	27.1	5.5W
53708-82	24VDC	Cont.	108	5.5W
53708-87	12VDC	Int.	12.7	11.5W
53708-88	24VDC	Int.	51	11.5W
53706-84	120VAC	Cont.	420	8VA
53706-90	120VAC	Int.	220	21VA

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2
DC Cont.	20	10	6	4	2
DC Int.	35	19	12	8	3
AC Cont.	16	12	10	8	4
AC Int.	29	20	17	14	6



L = 2
W = 1
H = 1-7/32
.187 QUICK CONNECT/
SOLDER TERMINALS

NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

D-30 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53749-81	12VDC	Cont.	20	7.2W
53749-82	24VDC	Cont.	80	7.2W
53749-87	12VDC	Int.	8	19W
53749-88	24VDC	Int.	30	19W

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2	3/4
DC Cont.	31	20	14	10	3	1
DC Int.	85	70	58	38	12	4
AC Cont.	9	7	5	4	4	3
AC Int.	21	15	13	12	10	6



L = 2-5/8
W = 1-9/16
H = 1-53/64

NOTE: Standard intermittent duty cycle at nominal voltage is three (3) minutes on and nine (9) minutes off.

ALL DIMENSIONS ARE NOMINAL.

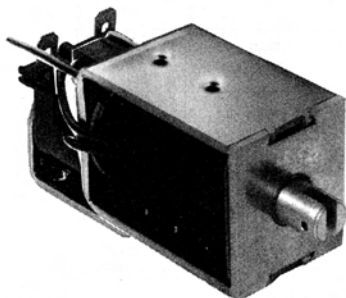
D-70 PULL TYPE

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
50046-81	12VDC	Cont.	11	13W
50046-83	24VDC	Cont.	45	13W
50046-93	115VDC	Cont.	1,020	13W
50031-81	12VDC	Int.	3	48W
50031-83	24VDC	Int.	14	48W
50031-93	115VDC	Int.	333	48W

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2	3/4	1
DC Cont.	135	100	72	50	18	10	5
DC Int.	200	160	135	115	60	36	20

L = 3-3/8
W = 1-9/16
H = 1-53/64



NOTE: Standard intermittent duty cycle at nominal voltage is one (1) minute on and three (3) minutes off.

Power surge for high power applications. Features dual windings. High-surge primary for pull-in; low current draw secondary for hold. Actuated by built-in coil switch.

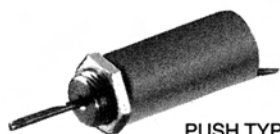
PS-75 PULL TYPE

Stock No.	Volts/Type	Duty	Pull Resist.
51073-81	12VDC	Cont.	0.9
51073-83	24VDC	Cont.	3.7

Stock No.	Pull Power (Max.)	Hold Amps	Hold Resist	Hold Power
51073-81	150	1	12	10
51073-83	150	.5	48	10

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	1/2	3/4	1
DC Cont.	15	14	13	11	6-1/2	4	2-1/2



PUSH TYPE

Dia. = 1/2
L = 1



PULL TYPE

NOTE: Standard intermittent duty cycle is one (1) minute on and three (3) minutes off.

Mounting Thread Size: 3/8 — 32 x 1/4" L.

MED - 8 x 1

Stock No.	Volts/Type	Duty	Coil	
			Resist. (Ohms)	Power
53762-81	12VDC	Cont.-Pull	36	4W
53762-87	12VDC	Int.-Pull	12	12W
53762-82	24VDC	Cont.-Pull	139	4W
53762-88	24VDC	Int.-Pull	48	12W
53766-82	24VDC	Cont.-Push	139	4W
53766-88	24VDC	Int.-Push	48	12W

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4
DC Cont.	4	2	1-1/4	1
DC Int.	7	4	3	2-1/2

PUSH TYPE



Dia. = 1/2
L = 1-1/2

PULL TYPE

NOTE: Standard intermittent duty cycle is one (1) minute on and three (3) minutes off.

Mounting Thread Size: 3/8 — 32 x 1/4" L.

ALL DIMENSIONS ARE NOMINAL.

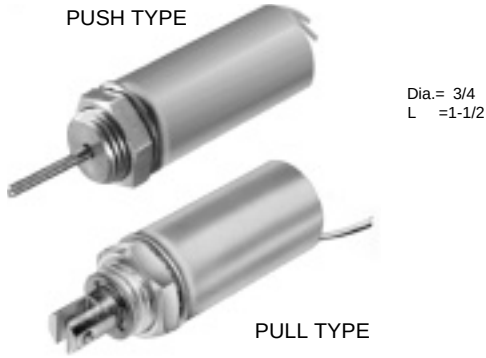
MED - 8 x 1-1/2

Stock No.	Volts/Type	Duty	Coil	
			Resist. (Ohms)	Power
53764-81	12VDC	Cont.-Pull	29	5W
53764-87	12VDC	Int.-Pull	9.6	15W
53764-82	24VDC	Cont.-Pull	115	5W
53764-88	24VDC	Int.-Pull	38.4	15W
53768-82	24VDC	Cont.-Push	115	5W
53768-88	24VDC	Int.-Push	38.4	15W

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	5/16
DC Cont.	4-1/2	2-1/2	2	1-3/4	1-1/2
DC Int.	9	6	4-1/2	4	3-1/2

PUSH TYPE



PULL TYPE

NOTE: Standard intermittent duty cycle is one (1) minute on and three (3) minutes off.

Mounting Thread Size: 9/16 — 18 x 3/8" L.

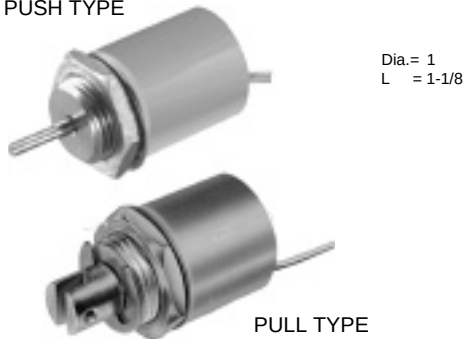
MED - 12 x 1-1/2

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53751-81	12VDC	Cont.-Pull	25	6W
53751-87	12VDC	Int.-Pull	10	15W
53751-82	24VDC	Cont.-Pull	100	6W
53751-88	24VDC	Int.-Pull	40	15W
53761-81	12VDC	Cont.-Push	25	6W
53761-87	12VDC	Int.-Push	10	15W
53761-82	24VDC	Cont.-Push	100	6W
53761-88	24VDC	Int.-Push	40	15W

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	3/8	1/2
DC Cont.	18	10	6-1/2	5	3	2
DC Int.	32	22	15	12	7-1/2	5-1/2

PUSH TYPE



PULL TYPE

NOTE: Standard intermittent duty cycle is one (1) minute on and three (3) minutes off.

Mounting Thread Size: 3/4 — 16 x 3/8" L.

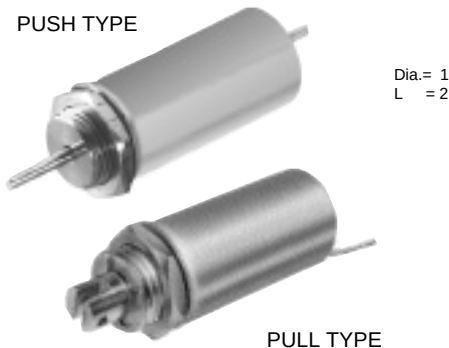
MED - 16 x 1-1/8

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53754-81	12VDC	Cont.-Pull	19	8W
53754-87	12VDC	Int.-Pull	7.5	19W
53754-82	24VDC	Cont.-Pull	75	8W
53754-88	24VDC	Int.-Pull	30	19W
53759-82	24VDC	Cont.-Push	75	8W
53759-88	24VDC	Int.-Push	30	19W

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	3/8
DC Cont.	38	17	10	7	4
DC Int.	77	46	25	16	6

PUSH TYPE



PULL TYPE

NOTE: Standard intermittent duty cycle is one (1) minute on and three (3) minutes off.

Mounting Thread Size: 3/4 — 16 x 3/8" L.

ALL DIMENSIONS ARE NOMINAL.

MED - 16 x 2

Stock No.	Volts/ Type	Duty	Coil	
			Resist. (Ohms)	Power
53753-81	12VDC	Cont.-Pull	15	10W
53753-87	12VDC	Int.-Pull	6	24W
53753-82	24VDC	Cont.-Pull	60	10W
53753-88	24VDC	Int.-Pull	24	24W
53757-81	12VDC	Cont.-Push	15	10W
53757-87	12VDC	Int.-Push	6	24W
53757-82	24VDC	Cont.-Push	60	10W
53757-88	24VDC	Int.-Push	24	24W

STROKE (INCHES) FORCE (OUNCES)

	1/16	1/8	3/16	1/4	3/8	1/2	5/8
DC Cont.	57	35	24	17	11	8	6
DC Int.	80	58	46	37	27	20	15