



Specification for Type ST Plug-in Relay Neutral Relay, Slow Release 4FB-2F-1B Contacts, 194 Ohm

Characteristic		Original Requirements	Contact/Coil Arrangement	
Coils	Nominal V or I	10-12 VDC	<p style="text-align: center;">(Front of Relay)</p>	
	Resistance/Tolerance	194 Ohms ±5% (Single Coil)		
Temperature Range		-40C (-40F) to 85C (185F)		
P.U./W.C.	Voltage	6.8 Volts Maximum		
	Current	35 milliamps Maximum		
	Speed	Pickup		Regular
Dropaway	Voltage	1.78 Volts Minimum		
	Current	9.2 milliamps Minimum		
	Speed	Release		1.0 Second ± 10% Delay @ 10 Volts
Contacts	Arrangement	4FB-2F-1B		<p style="text-align: center;">Relay register (Rear of Relay)</p>
	Rating	4 Amps/30 Volts		
	Material	N.O.	Silver/Carbon	
		N.C.	Silver/Silver	
	Dynamic Gap		.020" Minimum	
	Contact Gap		.050" Minimum	
	Pressure	N.O.	40 Grams Minimum	
		N.C.	21 Grams Minimum	
	Overtravel per Adjustment A		*See Note #1 below	
	Resistance	N.O.	90 milliohms Maximum @ 10 VDC, 1.0 Amps	
N.C.		30 milliohms Maximum @ 10 VDC, 1.0 Amps		
Armature Travel		.087" Minimum		
Retainer Gap Reference		.002" to .004"		
Residual Screw (Adjustable)		.005" Minimum		
Stop Pin (Fixed)		.003" Minimum		

Notes

- #1 N.O. Contacts to make with .032" and break with .041" between armature residual screw and core.
N.C. Contacts to make with .066" and break with .059" between armature residual screw and core.

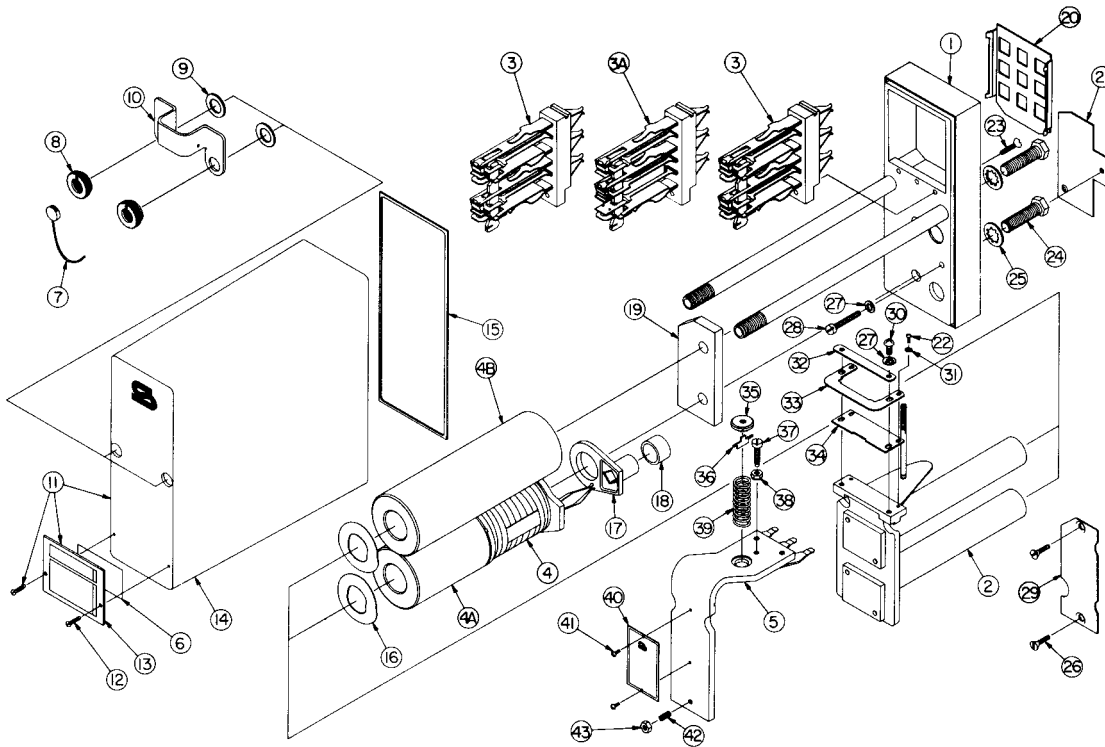
Field Requirements

- Drop Away Value — Not less than 70% of original marking.
Pickup/Working Value — Not greater than 110% of original marking.

Shop Requirements

- Drop Away Value — Not less than 95% of original marking.
Pickup/Working Value — Not greater than 105% of original marking.

Type ST Plug-in Relay Assembly and Replacement Parts Part Number 400211



To order, specify description and part number.

Item No.	Description	Qty. Req'd.	Part Number	Item No.	Description	Qty. Req'd.	Part Number
1	Base Assembly, Plug-in Relay	1	420050-1X	21	Plate, Code	1	420050-501
2	Frame Assembly, Coil	1	420053-7X	22	Machine Screw, Fillister Head, #4-40 X .250"	2	420053-14
3	Stack, 2FB Contact	2	420052-1X	23	Machine Screw, Flat Head, #6-32 X .531"	3	420050-36
3A	Stack, 2F-1B Contact	1	420052-2X	24	Machine Screw, Hex Head, 5/16"-24 X 1.125"	2	420053-12
4	Coil Assembly, 194 Ohm	2	420051-8X	25	Washer, Spring Lock, I, 5/16"	2	420053-13
4A	Slug, Aluminum	1	420051-4	26	Machine Screw, Flat Head, #6-32 X .5"	2	420050-36
4B	Slug, Aluminum	1	420051-5	27	Washer, Spring Lock, I, #8	3	420050-33
5	Armature	1	420053-1X	28	Machine Screw, Fillister Head, #8-32 X .937"	1	420050-32
6	Label, Paper Identification	1	420050-3	29	Plate, Code Pin	1	420050-101X
7	Seal, Lead	1	420050-8	30	Machine Screw, Pan Head, #8-32 X .375"	2	420053-16
8	Nut, Knurl, Locking	2	420050-5	31	Washer, Spring Lock, I, #4	2	420053-15
9	Washer, Flat Rubber	2	420050-7	32	Plate, Retainer	1	420053-3
10	Bracket, Cover	1	420050-4	33	Retainer, Armature	1	420053-2
11	Cover Assembly	1	420050-2X	34	Plate, Hinge	1	420053-1
12	Tap Screw, Round Head, #4 X .375"	2	420050-35	35	Nut, Spring Post	1	420053-6
13	Cover, Nameplate	1	420050-2	36	Key, Spring Retainer	1	420053-5
14	Molded Cover, Clear	1	420050	37	Screw, Tailstop	1	420053-9
15	Gasket, Cover	1	420050-1	38	Nut, Tailstop	1	420053-8
16	Washer, Spring	2	420053-42	39	Spring, Compression	1	420053-4
17	Insulator, Terminal Retainer	1	420051-8	40	Nameplate, Type ST Relay	1	420053-53
18	Seal, Rubber	1	420051-1	41	Phillips Screw, Pan Head, #4-40 X .187"	2	420053-18
19	Plate, Base	1	420053	42	Screw, Residual	1	420053-11
20	Seal, Dust	1	420052	43	Nut, Residual	1	420053-10

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