

Fully approved to Def 5165 Style SM5D. Hermetically sealed with glass-to-metal seal base. Balanced Rotary armature for excellent performance under severe shock and acceleration. Up to 4 pole changeover actions. Plug-in facilities for which a socket is available.



Type 2

Key Features

- Hermetically sealed.
- Plug-in facilities (Socket available)
- Balanced rotary armature
- Optional Tin Lead terminal base and pins * (see Note on sheet 4)

Specification

Electrical

Operate Time	20ms (typical – depends on contact action)
Release Time	15 ms (typical - depends on contact action)
Maximum Permissible Coil Dissipation	Slow release models are available with 25ms lag (min) Single winding, normal or heavy – 3.5W at 15.6 °C, 2.5W At 85 °C, 2W at 100 °C, Double winding, normal duty - 3.5W at 15.6 °C, 1.7W at 85 °C, 1.5W at 100 °C
Rated (Coil and/or springset to Frame)	300 V ac at 50 Hz.
Dielectric Strength between all parts not electrically connected	1000 V ac at 50 Hz.
Insulation Resistance	500MΩ (min) at 500 V dc

Coil Data

See table on sheet 2

Environmental and Physical

Weight	99.5 gram (3.5 oz) max.
Temperature category	-40 °C to +100 °C
Humidity Classifications H1 to RCS11	6 damp heat cycles (accelerated) Duration 16 hours (per cycle) at 55 °C, R.H. 95-100% 84 days tropical exposure
Vibration	To RCS11 – Velocity 25.4mm (1")/sec. at 10 Hz, to 76.2mm (3")/sec. at 60 Hz, then 3 g at 60 Hz to 6.5 g at 150 Hz.
Acceleration	To Def 5165: 20 g for 8 minutes (except with 1C contacts). 50 g for 8 minutes (with 1C contacts only).
Bump	B3 to RCS11 (with 1 or 2 contact actions) – 4000 bumps at 40 g. B4 to Def 5165 (with 3 or 4 contact actions) – 4000 bumps at 40 g.

Dimensions

See supplementary sheets for dimensional details

Ordering Information

Quote Part Number from Tables on Sheet 3 or 4.

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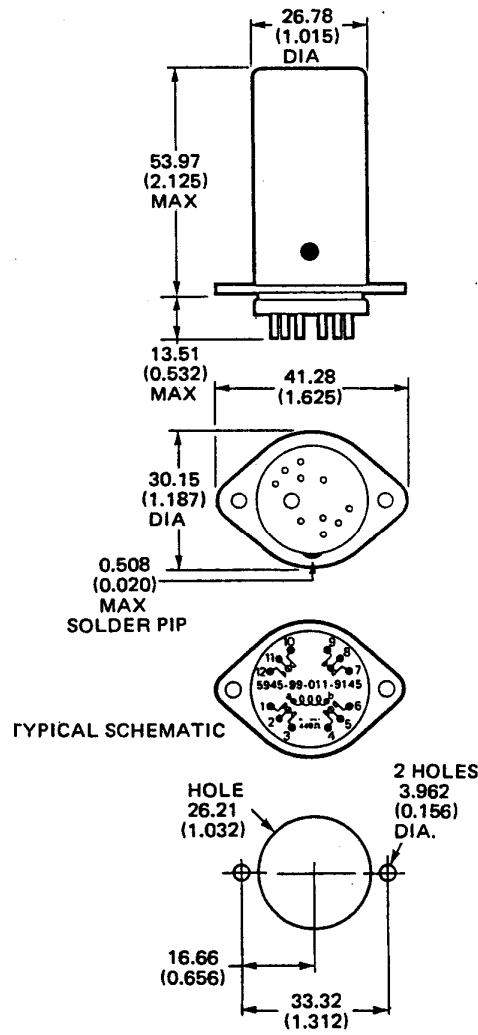
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DATA SHEET

RELAY

Type 2



All dimensions are in millimetres (inches)

Coil Data						
Nominal dc Coil Voltage	Nominal Coil Resistance Ω at 15.6 °C			Limit Circuit Current (mA)		
	a	b	c	a	b	c
1.3	2.4	1.1	-	300	650	-
6	52	28	14.5	67	123	215
12	180	105	80	38	65	75
24	700	440	340	19.5	31	40
48	2000	1650	1000	13	18	26
Constant Current Supply	7500	7500	-	6	8	-

The above are preferred coil values to Def 5165 style SM5D
Other values are available
(a) Relays with 2C or 2M contacts.
(b) Relays with 4C, 2C2K, 2B2M, MB2K, 2M2K or 2B2K contacts.
(c) Relays with 2C normal duty contacts having double wound coils: figures given are per coil.
Coil Resistance tolerances are all $\pm 5\%$ except for 7500 Ω coils which are +15% -10%

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Contact Data

Contact Arrangements Available	Contact Material	Contact Rating (Resistive Load) and Contact Life
2C, 4C, 2C2K	Silver Cadmium / Palladium	100mA at 300 Vdc - 10 ⁵ ops. 1A at 60 Vdc - 5 x 10 ⁵ ops. 1A at 12 Vdc - 10 ⁶ ops.
2M, 2B2M, MB2K, 2M2K, 2B2K	Silver Cadmium	4A at 60 Vdc - 2 x 10 ⁶ ops. 4A at 300 Vac - 10 ⁵ ops.

The contact arrangement given are preferred configurations in Def 5165 style SM5D.

Other arrangements are also available.

Note: For dc loads an adequate spark quench must be fitted.

Part No.	Style Ref.	NATO Stock No.	Coil Volts/Res Ω	Contact		
				Action	Duty	Material
507/1/02518/001	SM5DN64	5945-99-011-9136	1.3/2.4	2C	Normal	AgCdO/Palladium
507/1/02518/002	SM5DN65	5945-99-011-9137	6/52	2C	Normal	AgCdO/Palladium
507/1/02518/003	SM5DN66	5945-99-011-9138	12/180	2C	Normal	AgCdO/Palladium
507/1/02518/004	SM5DN67	5945-99-011-9139	24/700	2C	Normal	AgCdO/Palladium
507/1/02518/005	SM5DN68	5945-99-011-9140	48/2000	2C	Normal	AgCdO/Palladium
507/1/02518/013	SM5DN68a		48/1950	2C	Normal	AgCdO/Palladium
507/1/02518/006	SM5DN69	5945-99-011-9141	CCS/7500	2C	Normal	AgCdO/Palladium
507/1/02521/001	SM5DN70	5945-99-011-9142	1.3/1.1	4C	Normal	AgCdO/Palladium
507/1/02521/002	SM5DN71	5945-99-011-9143	6/28	4C	Normal	AgCdO/Palladium
507/1/02521/003	SM5DN72	5945-99-011-9144	12/105	4C	Normal	AgCdO/Palladium
507/1/02521/004	SM5DN72	5945-99-011-9145	24/440	4C	Normal	AgCdO/Palladium
507/1/02521/011	SM5DN134	5945-99-012-0306	48/1650	4C	Normal	AgCdO/Palladium
507/1/02521/006	SM5DN75	5945-99-011-9147	CCS/7500	4C	Normal	AgCdO/Palladium
507/1/02525/001	SM5DN76	5945-99-011-9148	1.3/1.1	2C2K	Normal	AgCdO/Palladium
507/1/02525/002	SM5DN77	5945-99-011-9149	6/28	2C2K	Normal	AgCdO/Palladium
507/1/02525/003	SM5DN78	5945-99-011-9150	12/105	2C2K	Normal	AgCdO/Palladium
507/1/02525/004	SM5DN79	5945-99-011-9151	24/440	2C2K	Normal	AgCdO/Palladium
507/1/02525/007	SM5DN135	5945-99-012-0307	48/1650	2C2K	Normal	AgCdO/Palladium
507/1/02525/006	SM5DN81	5945-99-012-9153	CCS/7500	2C2K	Normal	AgCdO/Palladium
507/1/02520/002	SM5DN82	5945-99-011-9154	6/14.5+14.5	2C	Normal	AgCdO/Palladium
507/1/02520/003	SM5DN83	5945-99-011-9155	12/80+80	2C	Normal	AgCdO/Palladium
507/1/02520/004	SM5DN84	5945-99-011-9156	24/340+340	2C	Normal	AgCdO/Palladium
507/1/02520/005	SM5DN85	5945-99-011-9157	48/1000+1000	2C	Normal	AgCdO/Palladium
507/1/02529/001	SM5DH40	5945-99-11-9158	1.3/2.4	2M	Heavy	Silver Cad.
507/1/02529/002	SM5DH41	5945-99-11-9159	6/52	2M	Heavy	Silver Cad.
507/1/02529/003	SM5DH42	5945-99-11-9160	12/180	2M	Heavy	Silver Cad.
507/1/02529/004	SM5DH43	5945-99-11-9161	24/700	2M	Heavy	Silver Cad.
507/1/02529/005	SM5DH44	5945-99-11-9162	48/2000	2M	Heavy	Silver Cad.
507/1/02529/006	SM5DH45	5945-99-11-9163	Ccs/7500	2M	Heavy	Silver Cad.
507/1/02531/001	SM5DH52	5945-99-11-9170	1.3/1.1	2B2M	Heavy	Silver Cad.
507/1/02531/002	SM5DH53	5945-99-11-9171	6/28	2B2M	Heavy	Silver Cad.
507/1/02531/003	SM5DH54	5945-99-11-9172	12/105	2B2M	Heavy	Silver Cad.
507/1/02531/004	SM5DH55	5945-99-11-9173	24/440	2B2M	Heavy	Silver Cad.
507/1/02531/008	SM5DH81	5945-99-12-0308	48/1650	2B2M	Heavy	Silver Cad.
507/1/02531/006	SM5DH57	5945-99-11-9175	CCS/7500	2B2M	Heavy	Silver Cad.
507/1/02534/001		5945-99-932-0971	24/440	4C	Heavy	AgCdO/Palladium
507/1/02534/004		5945-99-970-2796	48/1650	4C	Heavy	AgCdO/Palladium
507/1/02534/008		5945-99-950-4667	12/105	4C	Heavy	AgCdO/Palladium

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Part No.	Style Ref.	NATO Stock No.	Coil Volts/Res Ω	Contact		
				Action	Duty	Material
507/1/02535/001	SM5DH58	5945-99-11-9176	1.3/1.1	MB2K	Heavy	Silver Cad.
507/1/02535/002	SM5DH59	5945-99-11-9177	6/28	MB2K	Heavy	Silver Cad.
507/1/02535/003	SM5DH60	5945-99-11-9178	12/105	MB2K	Heavy	Silver Cad.
507/1/02535/004	SM5DH61	5945-99-11-9179	24/440	MB2K	Heavy	Silver Cad.
507/1/02535/007	SM5DH82	5945-99-12-0309	48/1650	MB2K	Heavy	Silver Cad.
507/1/02535/006	SM5DH63	5945-99-11-9181	CCS/7500	MB2K	Heavy	Silver Cad.
507/1/02536/001	SM5DH64	5945-99-011-9182	1.3/1.1	2M2K	Heavy	Silver Cad.
507/1/02536/002	SM5DH65	5945-99-011-9183	6/28	2M2K	Heavy	Silver Cad.
507/1/02536/003	SM5DH66	5945-99-011-9184	12/105	2M2K	Heavy	Silver Cad.
507/1/02536/004	SM5DH67	5945-99-011-9185	24/440	2M2K	Heavy	Silver Cad.
507/1/02536/007	SM5DH83	5945-99-011-0310	48/1650	2M2K	Heavy	Silver Cad.
507/1/02536/006	SM5DH69	5945-99-011-9187	CCS/7500	2M2K	Heavy	Silver Cad.
507/1/02537/001	SM5DH70	5945-99-011-9188	1.3/1.1	2B2K	Heavy	Silver Cad.
507/1/02537/002	SM5DH71	5945-99-011-9189	6/28	2B2K	Heavy	Silver Cad.
507/1/02537/003	SM5DH72	5945-99-011-9190	12/105	2B2K	Heavy	Silver Cad.
507/1/02537/004	SM5DH73	5945-99-011-9191	24/440	2B2K	Heavy	Silver Cad.
507/1/02537/007	SM5DH84	5945-99-012-0311	48/1650	2B2K	Heavy	Silver Cad.
507/1/02537/006	SM5DH75	5945-99-011-9193	CCS/7500	2B2K	Heavy	Silver Cad.
507/1/02517/009		5945-99-519-8103	48/1000	1C	Normal	AgCdO/Palladium
507/1/02517/010		5945-99-519-8104	CCS/7500	1C	Normal	AgCdO/Palladium
507/1/02530/007		5945-99-519-8105	6/52	1M1B	Heavy	Silver Cad.
507/1/02530/008		5945-99-519-8106	24/700	1M1B	Heavy	Silver Cad.
507/1/09442/004		5945-99-532-8021	24 / 340 + 340	2C	Normal	AgCdO/Palladium
507/1/09426/004		5945-99-223-3484	24/440	4C	Special	Gold Plated

*** NOTE:**

ALL OF THE ABOVE RELAYS MAY BE PLATED ELECTRO TIN LEAD ON THE TERMINALBASE AND PINS. THIS VARIANT HAS TLB SUFFIX TO THE PART NUMBER.

FOR EXAMPLE IF YOU REQUIRE TIN LEAD VERSION OF 507/1/02518/004, THEN THE PART NUMBER TO BE QUOTED WILL BE 507/1/02518/004 TLB.

THE TIN LEAD VARIANT IS FOR PROTECTION AGAINST TIN WHISKERS WHEN USING PURE TIN PLATING. (NB! Lead Content is greater than 5%)

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