



WEIGHT / COST-SAVING

Dummy Contact Sealing Plugs (DCSP)

For reliable sealing of unused contact cavities—without the use of electrical contacts

The use of color-coded M27488 type plastic sealing plugs in unused contact cavities is a requirement in all environmental interconnect applications (IAW NA01-1A-505-1, WP 007 00 or 020 00). Conventional sealing plugs, combined with the connector grommet seal, provide reliable dust and moisture ingress protection. But common contact sealing plugs still require that a properly-sized electrical contact be first inserted into the cavity, followed by the plastic plug. Glenair innovative Dummy Contact Sealing Plugs (DCSP) eliminate the need to use expensive electrical contacts as part of the sealing regimen. Fast and easy-to-install, these longer form-factor Dummy Contact Sealing Plugs (DCSP) are a one-piece solution to contact cavity sealing that results in significant weight reduction, material cost reduction, and assembly labor. Available in Size #23 to Size #8, for connector series D38999, Glenair Dummy Contact Sealing Plugs reduce weight as much as 90% compared to conventional contact/sealing plug configurations.

- Powerful tool in Electrical Wire Interconnect System weight reduction
- Eliminates use of expensive electrical contacts for sealing-only applications
- Leverages connector contact clip for secure retention of the sealing plug—no possibility of FOD
- Easy-to-install single piece design
- Visible quality control / confirmation of cavity fill from back of connector
- EWIS compliant test report available, ref. GT 15-106

SuperNine® Weight/cost-saving MIL-DTL-38999 Series III Type Dummy contact sealing plugs (DCSP)



CONTACTS AND TOOLS

Dummy Contact Sealing Plug (DCSP) Weight Savings: Size #20 Contact Arrangements

MIL-DTL-38999 Insert Arrangement					Spare Socket Cavity Components				Spare Pin Cavity Components				Mated Pair
Shell Size	Arrangement	Available Cavities	Filled Cavities	Percent Fill	Socket Contact M39029/56-351	Sealing Plug MS27488-20-2	Dummy Contact 680-116-20	Weight Savings	Pin Contact M39029/58-363	Sealing Plug MS27488-20-2	Dummy Contact 680-116-20	Weight Savings	Weight Savings
					(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)
9	98	3	2	67	0.50	0.08	0.06	0.52	0.14	0.08	0.06	0.15	0.67
11	98	6	4	67	1.00	0.16	0.12	1.04	0.27	0.16	0.12	0.31	1.34
13	98	10	8	80	1.00	0.16	0.12	1.04	0.27	0.16	0.12	0.31	1.34
15	19	19	14	74	2.50	0.39	0.30	2.59	0.68	0.39	0.30	0.77	3.36
17	26	26	20	77	3.00	0.47	0.36	3.11	0.82	0.47	0.36	0.92	4.03
19	32	32	24	75	4.00	0.62	0.48	4.14	1.09	0.62	0.48	1.23	5.38
21	41	41	32	78	4.50	0.70	0.54	4.66	1.22	0.70	0.54	1.39	6.05
23	55	55	44	80	5.50	0.86	0.66	5.70	1.50	0.86	0.66	1.69	7.39
25	61	61	48	79	6.50	1.01	0.78	6.73	1.77	1.01	0.78	2.00	8.74

Weight Savings per 1,000 Dummy Contact Sealing Plugs (DCSP)

Number of Spare Contact Cavities Sealed	Spare Socket Cavity Components				Spare Pin Cavity Components				Mated Pair	
	Socket Contact M39029/56-351	Sealing Plug MS27488-20-2	Dummy Contact 680-116-20	Weight Savings	Pin Contact M39029/58-363	Sealing Plug MS27488-20-2	Dummy Contact 680-116-20	Weight Savings	Weight Savings	
	(grams)	(grams)	(grams)	(grams) (lbs)	(grams)	(grams)	(grams)	(grams) (lbs)	(grams)	(lbs)
1000	500.0	78.0	60.0	518.0 1.14	136.0	78.0	60.0	154.0 0.34	672.0	1.48

Dummy Contact Sealing Plug (DCSP) Weight Savings: Size #22 Contact Arrangements

MIL-DTL-38999 Insert Arrangement					Spare Socket Cavity Components				Spare Pin Cavity Components				Mated Pair
Shell Size	Arrangement	Available Cavities	Filled Cavities	Percent Fill	Socket Contact M39029/56-348	Sealing Plug MS27488-22-2	Dummy Contact 680-116-22	Weight Savings	Pin Contact M39029/58-360	Sealing Plug MS27488-22-2	Dummy Contact 680-116-22	Weight Savings	Weight Savings
					(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)	(grams)
9	35	6	4	67	0.50	0.06	0.07	0.49	0.14	0.06	0.07	0.13	0.62
11	35	13	10	77	0.75	0.09	0.11	0.73	0.22	0.09	0.11	0.20	0.93
13	35	22	16	73	1.49	0.18	0.22	1.46	0.43	0.18	0.22	0.40	1.85
15	35	37	28	76	2.24	0.27	0.32	2.19	0.65	0.27	0.32	0.59	2.78
17	35	55	44	80	2.74	0.33	0.40	2.67	0.79	0.33	0.40	0.73	3.40
19	35	66	52	79	3.49	0.42	0.50	3.40	1.01	0.42	0.50	0.92	4.33
21	35	79	62	78	4.23	0.51	0.61	4.13	1.22	0.51	0.61	1.12	5.25
23	35	100	80	80	4.98	0.60	0.72	4.86	1.44	0.60	0.72	1.32	6.18
25	35	128	102	80	6.47	0.78	0.94	6.32	1.87	0.78	0.94	1.72	8.03

Weight Savings per 1,000 Dummy Contact Sealing Plugs (DCSP)

Number of Spare Contact Cavities Sealed	Spare Socket Cavity Components				Spare Pin Cavity Components				Mated Pair	
	Socket Contact M39029/56-348	Sealing Plug MS27488-22-2	Dummy Contact 687-116-22	Weight Savings	Pin Contact M39029/58-360	Sealing Plug MS27488-22-2	Dummy Contact 680-116-22	Weight Savings	Weight Savings	
	(grams)	(grams)	(grams)	(grams) (lbs)	(grams)	(grams)	(grams)	(grams) (lbs)	(grams)	(lbs)
1000	249.0	30.0	36.0	243.0 0.54	72.0	30.0	36.0	66.0 0.15	309.0	0.68

Reference Weights

Component	Weight (g)	Component	Weight (g)
MS27488-22-2	0.030	MS27488-16-3	0.140
M39029/58-360	0.072	M39029/58-364	0.333
M39029/56-348	0.249	M39029/56-352	0.769
Glenair DCSP 660-116-22	0.036	Glenair DCSP 660-116-16	0.140
MS27488-20-2	0.078	MS27488-12-3	0.260
M39029/58-363	0.136	M39029/58-365	0.681
M39029/56-351	0.500	M39029/56-353	1.600
Glenair DCSP 660-116-20	0.060	Glenair DCSP 687-116-12	0.280
		Glenair DCSP 687-821-8	1.800

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680-116 DUMMY CONTACT SEALING PLUG FOR D38999

Part Number Development			
Sample Part Number		680-116	-8 B
Series	680-116 = Dummy contact sealing plug		
Dash No.	See Table I		
Boot Option	B = Boot supplied with assembly (dash -8 only) Omit for none		

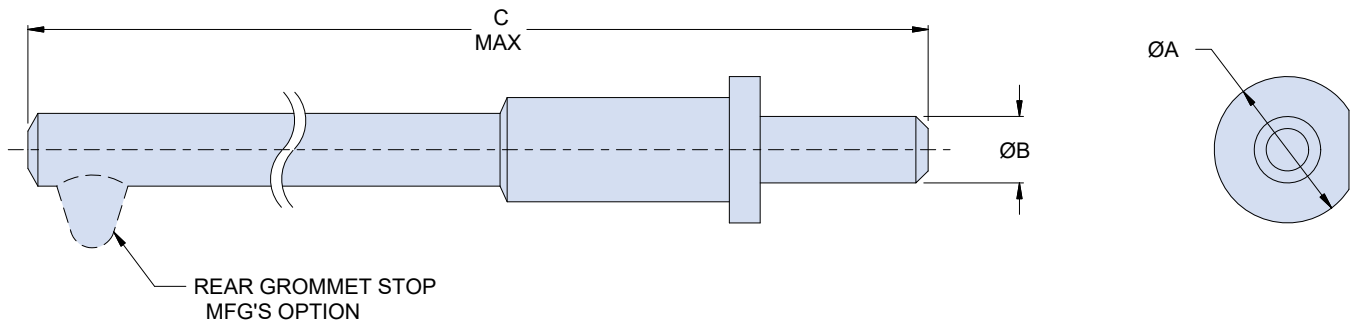


Table I									
Contact Cavity Size/Dash Number	Color Code	ØA		ØB		C Max		Extraction Tool	Standard Pkg. Size
		in.	mm	in.	mm	in.	mm		
-8	Green	.315	8.00	.218	5.54	1.51	38.4	M81969/14-06	100
-12	Orange	.181	4.60	.094	2.39	1.18	30.0	M81969/14-04	100
-16	Violet	.128	3.25	.062	1.57	1.18	30.0	M81969/14-03	500
-20	Red	.093	2.36	.040	1.02	1.18	30.0	M81969/14-10	1000
-22	Black	.061	1.55	.030	.76	1.18	30.0	M81969/14-01	1000
-23	White	.054	1.37	.027	.69	1.18	30.0	M81969/1-05	1000

- Molded plastic material, 200° minimum temperature limit
- Designed to seal the unused contact cavities of the MIL-DTL-38999 Ser. I, II, III, IV
- Size 8 dummy contact requires a boot (ref P/N 859-165-02) to seal the cavity of the grommet, supplied by selecting option "B" in the part number
- Use 859-106 size 8 sealing plug if any of the following conditions are true:
 - mating connector already has quadax, differentail twinax, coax (pin)
 - or
 - it is uncertain whether such contacts are already installed or will be installed in the contact cavity

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Connector Series / Size / Color Code / Part Number Selection							
Connector Series	Crimp Removable Contact Cavity Size						
	23	22	20	16	12	8	8 w/ Boot
D38999 Series I, III, IV	680-116-23	680-116-22	680-116-20	680-116-16	680-116-12	680-116-8	680A116-8B



INSTALLATION OF DUMMY CONTACTS

1. Insert Dummy Contacts into unused contact cavities.
A. Dummy Contacts may be installed using contact insertion tool, needle nose pliers or by hand (space permitting).
B. Isopropyl alcohol may be used to facilitate insertion of Dummy Contacts.
2. Push Dummy Contact into cavity until flange locks into contact retention clip.
3. Attempt to pull Dummy Contact from connector body to ensure full retention.

Important note: Size #22 and #23 Dummy Contacts In 38999 socket cavities

4. Dummy Contact shall only be inserted into cavity far enough to engage retention clip.
5. Pull Contact back for maximum tail exposure.

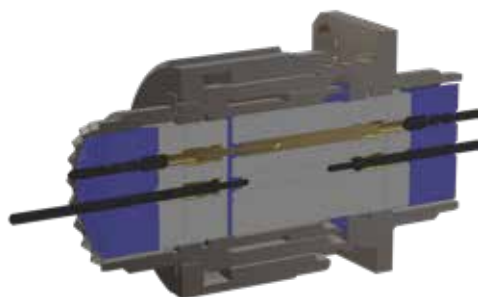
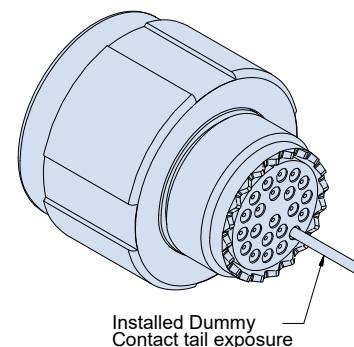
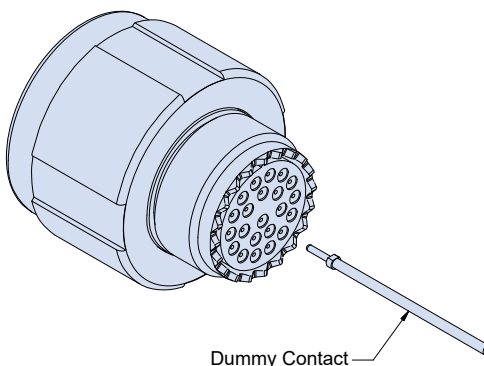


Illustration shows conventional sealing plug / contact configuration (top) and long form-factor Dummy Contact Sealing Plugs (bottom).

