



# 4270 Series Electrically Conductive Connector Covers

## Technical Information

BT 0806-1101  
Nov 2001

### Conductive Composite

3M™ 4270 Series Connector Covers feature a new unique Conductive Composite material. The material is made intrinsically conductive by uniformly distributing a conductive matrix of fibers during compounding. The covers are permanently volume conductive and free of carbon black particulate. The 4270 Series Covers do not leave black marks and are more suited to clean situations.

### Noncorrosive

4270 Series Connector Covers are noncorrosive and produce no visible corrosion when tested to Federal Test Method 101C using Kovar test plates.

### Military Application

4270 Series Circular Connectors Covers were designed to meet the requirements and intentions of MS90376, and MIL PRF 5501/31A or 32A. Prominent military contractors have qualified these materials to their own specifications and are encouraging their use.

### Conformability

The material used in the covers were also selected for its resilience. Properly sized, the covers provide a snug, secure fit. This helps keep connectors clean and prevents the cover from accidentally falling off.



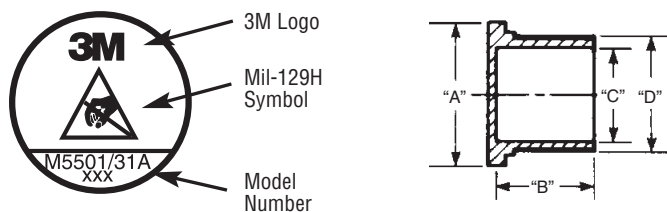
## Material Properties

Property	Test Method	Typical Value
Resistivity	ASTM D991	<10 <sup>5</sup> ohm-cm
Contact Corrosivity Metod 3005 (Kovar plate)	FTM 101C	Pass
Crayoning	3M	Not visible
Elongation	ASTM D638	25%
Tensile	ASTM D638	1,03 N/cm <sup>2</sup>
Vicat Softening	ASTM MD 1525	96° C
Out Gassing	ASTM E595	Pass

## Chemical Susceptibility

Chemical	Reactions
Dilute Acids	Slight Attack
Dilute Alkalines	Slight Attack
Concentrated Acids	Severe Attack
Concentrated Alkalines	Severe Attack
Methanol, Ethanol, and Isopropanol	Resistant
Hydrocarbons	Slight Attack
Ketones	Dissolves
Oil and Gasoline	Severe Attack

## Model 4270 Circular Cover



Dimensions in inches (in) : 1 in = 25,4 mm

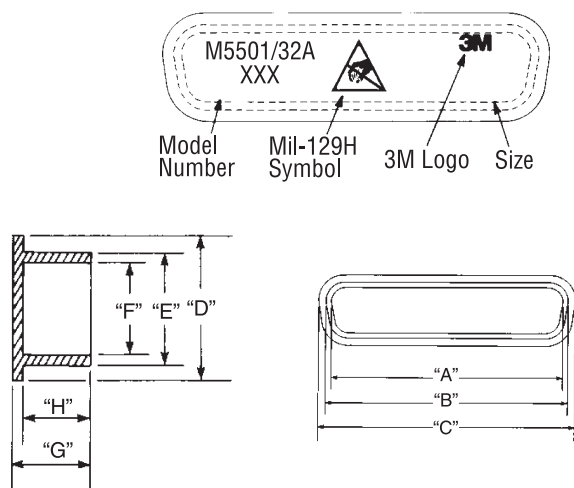
Product Description	Old Prod. Desc.	"A"	"B"	"C"	"D"
<b>Packaged 100/bag; 10 bags/box</b>					
4270 M5501-31A-250	4270-4R	.670	.500	.250	.336
4270 M5501/31A-313	4270-5R	.670	.500	.313	.399
4270 M5501/31A-375	4270-6R	.670	.500	.375	.461
4270 M5501/31A-413	4270-8Y	.670	.625	.413	.483
4270 M5501/31A-480	4270-8R	.740	.500	.480	.540
4270 M5501/31A-500	4270-9R	.750	.500	.500	.586
4270 M5501/31A-530	4270-10Y	.750	.625	.530	.595
4270 M5501/31A-605	4270-10R	.840	.500	.605	.665
4270 M5501/31A-655	4270-12Y	.860	.625	.655	.715
4270 M5501/31A-720	4270-12R	.970	.500	.720	.755
4270 M5501/31A-785	4270-14Y	1.031	.625	.785	.845
4270 M5501/31A-850	4270-14R	1.125	.500	.850	.905
4270 M5501/31A-893	4270-16Y	1.125	.625	.893	.963
4270 M5501/31A-973	4270-16R	1.220	.500	.973	1.035
4270 M5501/31A-1028	4270-18Y	1.250	.625	1.28	1.088
4270 M5501/31A-1093	4270-18R	1.330	.562	1.093	1.155
4270 M5501/31A-1125	4270-19R	1.400	.562	1.125	1.213
<b>Packaged 50/bag; 10 bags/box</b>					
4270 M5501/31A-1150	4270-20Y	1.406	.625	1.150	1.215
4270 M5501/31A-1231	4270-20R	1.465	.562	1.231	1.301
4270 M5501/31A-1270	4270-22Y	1.500	.625	1.270	1.340
4270 M5501/31A-1340	4270-22R	1.590	.562	1.340	1.410
4270 M5501/31A-1390	4270-24Y	1.640	.625	1.390	1.460
4270 M5501/31A-1463	4270-24R	1.700	.562	1.463	1.533
4270 M5501/31A-1540	4270-25Y	1.810	.625	1.540	1.580
4270 M5501/31A-1645	4270-28Y	1.875	.625	1.645	1.718
4270 M5501/31A-1715	4270-28R	1.950	.562	1.715	1.790

## Model 4270 Circular Cover (continued)

Dimensions in inches (in) : 1 in = 25,4 mm

Product Description	Old Prod. Desc.	"A"	"B"	"C"	"D"
<b>Packaged 25/bag; 10 bags/box</b>					
4270 M5501/31A-1890	4270-32Y	2.125	.625	1.890	1.970
4270 M5501/31A-1965	4270-32R	2.220	.562	1.965	2.040
4270 M5501/31A-2140	4270-36Y	2.340	.625	2.140	2.210
4270 M5501/31A-2215	4270-36R	2.435	.600	2.215	2.290
4270 M5501/31A-2380	4270-40Y	2.600	.625	2.380	2.450
4270 M5501/31A-2440	4270-40R	2.660	.600	2.440	2.530
4270 M5501/31A-2630	4270-44Y	2.875	.625	2.630	2.700
4270 M5501/31A-2720	4270-44R	2.960	.600	2.720	2.812
4270 M5501/31A-2880	4270-48Y	3.125	.625	2.880	2.950
4270 M5501/31A-2960	4270-48R	3.225	.600	2.960	3.050

## Model 4272 "D" Type Cover



Dimensions in inches (in) : 1 in = 25,4 mm

Product Description	Old Prod. Desc.	"A"	"B"	"C"	"D"	"E"	"F"	"G"	"H"
<b>Nominal Dimensions Packaged 100/bag; 10 bags/box</b>									
4272 M5501/32A-50P	4272-50P	2.112	2.179	2.279	.636	.536	.469	.280	.240
4272 M5501/32A-50S	4272-50S	2.049	2.116	2.216	.574	.474	.407	.280	.240
4272 M5501/32A-37P	4272-37P	2.216	2.283	2.383	.530	.430	.363	.280	.240
4272 M5501/32A-37S	4272-37S	2.143	2.210	2.310	.462	.362	.295	.280	.240
4272 M5501/32A-25P	4272-25P	1.586	1.635	1.735	.530	.430	.363	.280	.240
4272 M5501/32A-25S	4272-25S	1.495	1.562	1.662	.462	.362	.295	.280	.240
4272 M5501/32A-15P	4272-15P	1.040	1.107	1.177	.512	.436	.369	.280	.240
4272 M5501/32A-15S	4272-15S	.955	1.022	1.122	.462	.362	.295	.280	.240
4272 M5501/32A-9P	4272-9P	.708	.775	.849	.512	.434	.367	.280	.240
4272 M5501/32A-9S	4272-9S	.627	.694	.794	.462	.362	.295	.280	.240



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