


MATERIAL DECLARATION SHEET

BOURNS®

Material Number	AMS22B			
Product Line	Analog Magnetic Non-Contacting			
Compliance Date	2012			
RoHS Compliant	yes	MSL	1	

No.	Construction Element (subpart)	Homogeneous Material	Material weight [g]	Homogeneous Material Substances	CASRN if applicable	Materials Mass %	Material Mass % of total unit wt.	Subpart mass of total wt. (%)
1	Housing	PBT	1.974	Poly(butylene terephthalate)	30965-26-5	53.8	7.003	13.016%
				Glass Fiber	65997-17-3	30	3.904	
				Brominated flame retardant	Trade secret	11	1.432	
				Antimony Oxide	1309-64-4	4	0.521	
				Further additives not to declare	Trade secret	1.2	0.156	
2	Bushing	Brass	4.291	Copper	7440-50-8	61	17.260%	28.296%
				Zinc	7440-66-6	35.5	10.045%	
				Lead	7439-92-1	3	0.849%	
		Plating	0.022	Nickel	7440-02-0	0.5	0.141%	0.142%
3	Shaft	Stainless Steel	4.777	Iron	7439-89-6	69.7	21.954%	31.497%
				Chromium	7440-47-3	18	5.670%	
				Nickel	7440-02-0	9	2.835%	
				Manganese	7439-96-5	2	0.630%	
				Silicon	7440-21-3	1	0.315%	
				Molybdenum	7439-98-7	0.6	0.189%	
				Phosphorus	7723-14-0	0.2	0.063%	
				Carbon	7440-44-0	0.15	0.047%	
				Sulfur	7704-34-9	0.15	0.047%	
				Hydrogenated trimer & Tetramer of Decene	68649-12-7	58.8	0.388%	
				Ethylene Propylene Copolymer	9010-79-1	30.8	0.203%	

MATERIAL DECLARATION SHEET



				Amorphous Silica	112945-52-5	5.4	0.036%	
				Polytetra Fluoroethylene	9002-84-0	5	0.033%	
5	Bearing	Bronze	0.995	Copper	7440-50-8	88.9	5.832%	6.561%
				Tin	7440-31-5	10	0.656%	
				Iron	7439-89-6	0.5	0.033%	
				Graphite	7440-66-6	0.1	0.007%	
				Other	----	0.5	0.033%	
6	Washer 2X	Stainless Steel	0.132	Iron	7439-89-6	69.7	0.607%	0.870%
				Chromium	7440-47-3	18	0.157%	
				Nickel	7440-02-0	9	0.078%	
				Manganese	7439-96-5	2	0.017%	
				Silicon	7440-21-3	1	0.009%	
				Molybdenum	7439-98-7	0.6	0.005%	
				Phosphorus	7723-14-0	0.2	0.002%	
				Carbon	7440-44-0	0.15	0.001%	
				Sulfur	7704-34-9	0.15	0.001%	
7	Retaining Ring	Stainless Steel	0.018	Iron	7439-89-6	71.925	0.083%	0.115%
				Chromium	7440-47-3	17	0.020%	
				Nickel	7440-02-0	8	0.009%	
				Manganese	7439-96-5	2	0.002%	
				Silicon	7440-21-3	0.75	0.001%	
				Carbon	7440-44-0	0.15	1.73E-04	
				Nitrogen	7727-37-9	0.1	1.15E-04	
				Phosphorus	7723-14-0	0.045	5.19E-05	
Sulfur	7704-34-9	0.03	3.46E-05					
8	Rotor	Nylon 6/6	0.356	Polyhexamethylene Adipamide	32131-17-2	66	1.549%	2.347%
				Glass fiber	65997-17-3	32	0.751%	
				Molybdenum disulfide	1317-33-5	2	0.047%	
9	Cover	Nylon 9T	1.076	PA 9T	169284-22-4	43	3.051%	7.095%
				Glass Fiber	65997-17-3	34	2.412%	
				Brominated Polystyrene	88497-56-5	23	1.632%	

MATERIAL DECLARATION SHEET



10	PCB Panel	PCB-Copper	0.021	Copper	7440-50-8	100	0.138%	0.138%
		PCB-Laminate	0.383	Glass fiber	65997-17-3	55	1.389%	2.525%
				Phenol	26265-08-7	45	1.136%	
		Solder Resist	0.01	Bisphenol A, epichlorohydrin ploymer	25068-38-6	56.9	0.038%	0.066%
				Quartz	14808-60-7	20	0.013%	
				Barium Sulfate	7727-43-7	13.1	0.009%	
				Tri-2, 1-ethanediyl triacrylate	40220-08-4	2.8	0.002%	
				Talc	14807-96-6	2	0.001%	
				Hexabromo-decachloro-phthalocyaninato	14302-13-7	0.4	2.64E-04%	
				Cyanoguanidine	461-58-5	0.1	6.6E-05%	
				Further Additives	----	4.7	0.003%	
		PCB-Metals	0.00083	Nickel	7440-02-0	96.2	0.005%	0.005%
				Gold	7440-57-5	3.8	0.0002%	
11	Capacitors X 3	Ceramic Body	0.0053	Barium	7440-39-3	48.5	0.017%	0.035%
				Oxygen	7782-44-7	20.2	0.007%	
				Titanium	7440-32-6	16.8	0.006%	
				Nickel	7440-02-0	13.7	0.005%	
				Misc, not to declare	----	0.8	2.80E-04	
		Soldering Termination	0.00068	Copper	7440-50-8	47	0.002%	0.004%
				Tin	7440-31-5	37.4	0.002%	
				Nickel	7440-02-0	12.1	0.001%	
				Misc, not to declare	----	3.5	0.0002%	
		12	ASIC	Leadframe	0.024	Copper	7440-50-8	99.9
Zirconium	7440-67-7					0.1	0.0002%	
Die	0.0026			Silicon	7440-21-3	99.99	0.017%	0.017%
				Misc, not to declare	----	0.001	1.71E-07	
Die Attach Adhesive	0.0011			Silver	7440-22-4	80	0.006%	0.007%
				Epoxy Resin	----	15	0.001%	
		Additives, not to declare	----	5	0.0004%			

MATERIAL DECLARATION SHEET



13	Magnet	Bonding Wire	0.0003	Gold	7440-57-5	99.99	0.002%	0.002%
				Copper	7440-50-8	0.0013	2.57E-08	
				Palladium	7440-05-3	0.0013	2.57E-08	
				Silicon	7440-21-3	0.0012	2.37E-08	
				Bismuth	7440-69-9	0.0005	9.89E-09	
				Lead	7439-92-1	0.0005	9.89E-09	
				Tin	7440-31-5	0.0003	5.93E-09	
				Arsenic	7440-38-2	0.0007	1.38E-08	
				Iron	7439-89-6	0.0005	9.89E-09	
				Magnesium	7439-95-4	0.0008	1.58E-08	
				Manganese	7439-96-5	0.00008	1.58E-09	
				Nickel	7440-02-0	0.00008	1.58E-09	
				Chromium	7440-47-3	0.00007	1.38E-09	
				Lead Finish	0.0014	Tin	7440-31-5	
		Carbon	7440-44-0			0.505	4.66E-05	
		Sulphur	7704-34-9			0.02	1.85E-06	
		Lead	7439-92-1			0.015	1.38E-06	
		Encapsulation	0.0817	Silica, Vitreous	60676-86-0	87.7	0.472%	0.539%
				Epoxy Resin	----	5	0.027%	
				Phenolic Resin	----	5	0.027%	
				Pormaldehyde, Polymer w/ (chloromethyl) oxirane and 2-methylphenol	29690-82-2	2	0.011%	
				Carbon Black	1333-84-4	0.3	0.002%	
		Plating	0.000006	Cobalt	7440-48-4	85	3.36E-05	0.00004%
				Silicon	7440-21-3	6	2.37E-06	
				Iron	7439-89-6	3	1.19E-06	
				Manganese	7439-96-5	4	1.58E-06	
				Molybdenum	7439-98-7	2	7.91E-07	
		NdFeB Sintered Magnet	0.516	Iron	7439-89-6	67.5	2.297%	3.402%
				Neodymium	7440-00-8	31	1.055%	
				Boron	7440-42-8	1	0.034%	

MATERIAL DECLARATION SHEET



		Plating	0.03	Nickel	7440-02-0	0.5	0.001%	0.198%
14	Terminal X 3	Brass C26000	0.261	Copper	7440-50-8	70	1.205%	1.721%
				Zinc	7440-66-6	30	0.516%	
		Plating	0.015	Tin	7440-31-5	1	0.001%	0.099%
15	Solder Paste	Solder	0.01	Tin	7440-31-5	88	0.058%	0.066%
				Silver	7440-22-4	7	0.005%	
				Copper	7440-50-8	5	0.003%	
16	Solder	Solder	0.032	Tin	7440-31-5	88	0.186%	0.211%
				Silver	7440-22-4	7	0.015%	
				Copper	7440-50-8	5	0.011%	
17	Epoxy	Epoxy	0.01	Cycloaliphatic epoxide	trade secret	40	0.026%	0.066%
				Silicon dioxide	67762-90-7	25	0.016%	
				Hydrated alumina	21645-51-2	20	0.013%	
				Polyetherpolyol resins	39072-02-1	15	0.010%	
18	Coating	Conformal Coating	0.02	2-Butanone Oxime	96-29-7	1.85	0.002%	0.132%
				Naphtha	64742-48-9	4.63	0.006%	
				Isoparaffinic Hydrocarbon	90622-57-4	92.59	0.122%	
				Cobalt Octoate	136-52-7	0.93	0.001%	

Total Weight	15.166
---------------------	---------------

This Document was updated on: Sept. 26, 2012

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. Per [Product Update Memo SC2436](#), this MDS is under revision. The updated version will be posted soon.