


MATERIAL DECLARATION SHEET



Material Number	54 PUSH PULL			
Product Line	Panel Control			
Compliance Date	2010			
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	Primary Housing	PBT	0.653	Glass fiber	65997-17-3	30	1.957	6.522
				TBBPA polycarbonate polymer	trade secret	11	0.717	
				Poly(butylene terephthalate)	30965-26-5	55	3.587	
				Antimony Oxide	1309-64-4	4	0.261	
2	Bushing	Aluminum Alloy	1.765	Silicon	7440-21-3	0.7	0.123	17.629
				Iron	7439-89-6	0.34	0.059	
				Copper	7440-50-8	0.34	0.059	
				Manganese	7439-96-5	0.09	0.015	
				Magnesium	7439-95-4	0.9	0.158	
				Chromium	7440-47-3	0.09	0.015	
				Zinc	7440-66-6	0.05	0.008	
				Titanium	7440-32-6	0.02	0.003	
				Aluminum	7429-90-5	97.47	17.183	
		Plating	0.0146	Nickel	7440-02-0	100	0.145	0.145
3	Rotor	Nylon	0.249	Nylon	32131-17-2	66	1.642	2.487
				Glass fiber	65997-17-3	32	0.795	
				Molybdenum disulfide	1317-33-5	2	0.050	

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4	Contact Spring	Nickel Silver Alloy	0.029	Copper	7440-50-8	65	0.188	0.289
				Nickel	7440-02-0	18	0.052	
				Lead	7439-92-1	1	0.003	
				Zinc	7440-66-6	16	0.046	
5	Substrate	Ceramic	0.277	Aluminum Oxide	1344-28-1	95	2.628	2.766
				Silicon Oxide	14808-60-7	2	0.055	
				Magnesium Oxide	1309-48-4	2	0.055	
				Calcium Oxide	1305-78-8	1	0.027	
6	Conductive Ink	Ink	0.007	Silver	7440-22-4	75	0.052	0.069
				Palladium	7440-05-3	10	0.007	
				Dibismuth-trioxide	1304-76-3	10	0.007	
				Ruthenium(IV)oxide	12036-10-1	1	0.0007	
				Silicon dioxide	7631-86-9	1	0.0007	
				Nickel-monoxide	1313-99-1	1	0.0007	
Lead-monoxide	1317-36-8	1	0.0007					
7	Resistive Ink	Ink	0.007	Ruthenium(IV)oxide	12036-10-1	12.11	0.008	0.068
				Silver	7440-22-4	10.11	0.007	
				Palladium	7440-05-3	12.11	0.008	
				Diboron-trioxide	1303-86-2	1.056	0.0007	
				Aluminum Oxide	1344-28-1	3.056	0.002	
				Lead-monoxide	1317-36-8	19.11	0.13	
				Silicon dioxide	7631-86-9	14.11	0.009	
				Calcium-oxide	1305-78-8	1.056	0.0007	
				Dibismuth-trioxide	1304-76-3	11.11	0.007	
Digadolinium-trioxide	12064-62-9	14.11	0.009					
8	Resistive Ink	Ink	0.007	Phenolic resin	9039-25-2	67	0.046	0.069
				Diallyl isophthalate	1087-21-4	6	0.004	
				Carbon Black	1333-86-4	7	0.004	
				Barium sulfate	7727-43-7	16	0.011	
				Graphite	7782-42-5	4	0.002	

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9	Terminal X 3	Copper	0.12	Copper	7440-50-8	100	1.198	1.198
		Plating	0.0027	Tin	7440-31-5	100	0.027	0.027
10	Primary Cover	PBT	0.198	Glass	65997-17-3	30	0.593	1.978
				Poly(butylene terephthalate)	30965-26-5	55	1.088	
				Antimony Oxide	1309-64-4	4	0.079	
				TBBPA Polycarbonate polymer	trade secret	11	0.218	
11	Shaft	Brass	3.322	Copper	7440-50-8	61.5	20.407	33.182
				Zinc	7440-66-6	35.5	11.779	
				Lead	7439-92-1	3	0.995	
		Nickel plating	0.0097	Nickel	7440-02-0	100	0.096	0.096
12	O-Ring, Shaft	Nitrile Rubber	0.003	Poly-acrylonitrile butadiene	9003-18-3	100	0.029	0.029
13	E-Ring	Stainless Steel	0.01	Aluminum	7429-90-5	1	0.001	0.099
				Carbon	7440-44-0	0.09	0.0001	
				Chromium	7440-47-3	15	0.015	
				Iron	7439-89-6	72.83	0.072	
				Manganese	7439-96-5	1	0.001	
				Molybdenum	7439-98-7	2	0.002	
				Nickel	7440-02-0	7	0.007	
				Phosphorus	7723-14-0	0.04	0.00004	
				Sulfur	7704-34-9	0.04	0.00004	
Silicon	7440-21-3	1	0.001					
14	O-Ring, Switch Module	Nitrile Rubber	0.022	Poly-acrylonitrile butadiene	9003-18-3	100	0.219	0.219
15	Switch Housing	PBT	1.166	Glass	65997-17-3	30	3.494	11.647
				Poly(butylene terephthalate)	30965-26-5	55	6.406	
				Antimony Oxide	1309-64-4	4	0.466	
				TBBPA polycarbonate polymer	trade secret	11	1.281	

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16	Insulator, Terminal Assembly	Nylon	0.241	Polyamide 9T	169284-22-4	45	1.083	2.407
				Glass Fiber	65997-17-3	33	0.794	
				Brominated polystyrene	88497-56-7	22	0.530	
		Phosphor Bronze	0.257	Copper	7440-50-8	91.8	2.356	2.567
				Tin	7440-31-5	8	0.205	
				Phosphorous	7723-14-0	0.2	0.005	
		Under Plate	0.0007	Nickel	7440-02-0	100	0.007	0.007
Over Plate	0.001	Silver	7440-22-4	100	0.010	0.010		
Over Plate	0.0007	Tin	7440-31-5	100	0.007	0.007		
17	Slider	Nylon	0.477	Polyamide 6.6	32131-17-2	77.5	3.692	4.764
				Glass spheres	65997-17-3	20	0.952	
				Carbon black	1333-86-4	2.5	0.118	
18	Contact, Switch X2	Nickel Silver Alloy	0.129	Copper	7440-50-8	55	0.708	1.288
				Nickel	7440-02-0	18	0.231	
				Zinc	7440-66-6	27	0.347	
19	Cover, Detent	PBT	0.241	Glass	65997-17-3	30	0.722	2.407
				Poly(butylene terephthalate)	30965-26-5	55	1.324	
				Antimony Oxide	1309-64-4	4	0.096	
				TBBPA polycarbonate polymer	trade secret	11	0.265	
20	Bracket	Stainless Steel	0.741	Carbon	7440-44-0	0.15	0.011	7.401
				Manganese	7439-96-5	2	0.148	
				Iron	7439-89-6	72.85	5.392	
				Silicon	7440-21-3	1	0.074	
				Nickel	7440-02-0	7	0.518	
Chromium	7440-47-3	17	1.258					
21	Lube, Element	Lube	0.005	Decanoic acid, mixed esters with heptanoic acid, octanoic acid	68130-53-0	54.4	0.027	0.049
				Lithium 12-hydroxystearate	7620-77-1	5.7	0.002	
				Isohexadecyl-isoctadecanoate	52006-45-8	33.7	0.016	
				Polyisobutylene	9003-27-4	6.2	0.003	

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22	Lube, Shaft	Lube	0.002	1-Decene, tetramer, mixed with 1-decene trimer, hydrogenated	68649-12-7	58.8	0.011	0.020
				Ethylene/propylene copolymer	9010-79-1	30.8	0.006	
				Silica, amorphous fumed	112945-52-5	5.4	0.001	
				Polytetrafluoroethylene	9002-84-0	5	0.001	
23	Lube, Contact Switch	Lube	0.002	o-Phenylenediamine	95-54-5	0.01	0.000002	0.020
				non-hazardous grease	N/A	99.99	0.199	
24	Epoxy	Epoxy	0.052	Epoxy resin	25085-99-8	49	0.254	0.519
				Antimony trioxide	1309-64-4	11	0.057	
				Silicon dioxide	7440-21-3	11	0.057	
				Aluminum oxide	1344-28-1	11	0.057	
				Kaolin clay	1332-58-7	9	0.047	
				Magnesium alumino silicate	1302-88-1	9	0.047	
		Total weight	10.011					

This Document was updated on: April 20, 2011

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. RoHS exemptions used: 7(c)-I – Electrical & electronic components containing lead in a glass or ceramic...; 6c – copper alloy containing up to 4% lead by weight.