

MATERIAL DECLARATION SHEET

BOURNS®

Material Number	81/ 82A2X-XXX-EXX/EXXL			
Product Line	Sensor & Controls			
Compliance Date	January 02, 2006			
RoHS Compliant	Yes	MSL	N/A	

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	Hex Nut	Brass C260	1.2500	Copper	7440-50-8	70.00	4.249	6.07
				Zinc	7440-66-6	30.00	1.821	
		Plating	0.0900	Nickel	7440-02-0	100	0.437	0.44
2	Lock washer	Carbon Steel S50CM	0.3100	Carbon	7440-44-0	0.5	0.008	1.51
				Iron	7439-89-6	98.7	1.486	
				Manganese	7439-96-5	0.75	0.011	
				Phosphorus	7723-14-0	0.02	0.0003	
				Sulphur	7704-34-9	0.03	0.0005	
		Plating	0.0001	Nickel	7440-02-0	100	0.0005	0.0005
3	Bushing	Aluminum 2011	1.1470	Aluminum (Metal)	7429-90-5	92.93	5.18	5.57
				Bismuth	7440-69-9	0.4	0.02	
				Copper	7440-50-8	5.5	0.31	
				Iron	7439-89-6	0.345	0.02	
				Lead	7439-92-1	0.4	0.02	
				Silicon	7440-21-3	0.2	0.01	
				Zinc (Metal)	7440-66-6	0.15	0.01	
				Misc, Not to Declare	Proprietary	0.075	0.004	
		Plating	0.0010	Nickel	7440-02-0	100	0.005	0.005

MATERIAL DECLARATION SHEET



4	Body Primary	Resin	1.8600	PBT	26062-94-2	53.7	4.85	9.03
				Glass Fiber	65997-17-3	30	2.71	
				Brominated Epoxy Resin	68928-70-1	10.5	0.95	
				Antimony Trioxide	1309-64-4	3	0.27	
				Pigment Blue 15	147-14-8	0.8	0.07	
				Further Additives, Not to Declare	Proprietary	2	0.18	
5	Shaft	Brass 360	6.5000	Copper	7440-50-8	61.5	19.41	31.57
				Iron	7439-89-6	0.2	0.06	
				Lead	7439-92-1	3	0.95	
				Zinc	7440-66-6	35	11.05	
				Misc, not to Declare	Proprietary	0.3	0.09	
		Plating	0.0010	Nickel	7440-02-0	100	0.005	0.005
6	Rotor	Resin	0.5300	PBT	26062-94-2	53.7	1.38	2.57
				Glass Fiber	65997-17-3	30	0.77	
				Brominated Epoxy Resin	68928-70-1	10.5	0.27	
				Antimony Trioxide	1309-64-4	3	0.08	
				Pigment Blue 15	147-14-8	0.8	0.02	
				Further Additives, Not to Declare	Proprietary	2	0.05	
7	Contact Spring	Strip Laminated	0.01	Copper	7440-50-8	70	0.0002	0.05
				Zinc	7440-66-6	30	0.0002	
		Spacer Strip	0.008	Nickel	7440-02-0	18	0.007	0.04
				Copper	7440-50-8	55	0.021	
				Zinc	7440-66-6	27	0.010	
		Solder Inlay	0.003	Tin	7440-31-5	94.2	0.014	0.01
				Silver	7440-22-4	5	0.0007	
				Bismuth	7440-69-9	0.3	0.00004	
				Impurities	Proprietary	0.5	0.0001	
		Wire	0.026	Copper	7440-50-8	65	0.08	0.13

MATERIAL DECLARATION SHEET



				Nickel	7440-02-0	18	0.02	
				Zinc	7440-66-6	17	0.02	
8	Rotor Driver	Zinc Alloy 3	1.0130	Aluminum (Metal)	7429-90-5	4	0.20	4.92
				Cadmium	7440-43-9	0.002	0.0001	
				Copper	7440-50-8	0.1	0.005	
				Iron	7439-89-6	0.05	0.002	
				Magnesium (Metal)	7439-95-4	0.04	0.002	
				Lead	7439-92-1	0.003	0.0001	
				Tin	7440-31-5	0.002	0.0001	
				Zinc (Metal)	7440-66-6	95.7	4.71	
				Misc, not to Declare	Proprietary	0.1	0.005	
9	Substrate X2	Ceramic	1.9560	Aluminum Oxide	1344-28-1	96	9.12	9.50
				Silicon Oxide	7631-86-9	2	0.19	
				Magnesium Oxide	1309-48-4	1	0.09	
				Calcium Oxide	1305-78-8	1	0.09	
10	Ink (X2)	Ink	0.0100	Silver	7440-22-4	75	0.0364	0.05
				Palladium	7440-05-3	11.5	0.0056	
				Glass w/o Declarables	65997-17-3	6	0.0029	
				Lead in Glass	7439-92-1	0.5	0.0002	
				Dibismuth-Trioxide	1304-76-3	3.2	0.0016	
				Nickel-Monoxide	1313-99-1	0.8	0.0004	
				Zinc Oxide	1314-13-2	0.8	0.0004	
				Ceramic w/o Declarable Substances	66402-68-4	2.1	0.0010	
				Copper	7440-50-8	0.1	0.00005	
11	Ink (X2)	Ink	0.0018	Formaldehyde, Polymer	28470-78-2	31.0	0.003	0.01
				Barium Sulfate	7727-43-7	16.0	0.001	
				Carbon Black	1333-86-4	9.0	0.001	
				DAIP Resin	1087-21-4	19.0	0.002	
				Phenolic Resin	9039-25-2	18.0	0.002	
				Graphite	7782-42-5	5.0	0.0004	

MATERIAL DECLARATION SHEET



				Polydimethylsiloxane	63148-62-9	2.0	0.0002	
12	Ink (X2)	Ink	0.0342	Formaldehyde, Polymer	28470-78-2	29.5	0.049	0.17
				Carbon Black	1333-86-4	14.5	0.024	
				DAIP Resin	1087-21-4	19.0	0.032	
				Phenolic Resin	9039-25-2	19.5	0.032	
				Carbon	7440-44-0	9.5	0.016	
				Graphite	7782-42-5	5.0	0.008	
				Polydimethylsiloxane	63148-62-9	3.0	0.005	
13	Terminal Wire (X6)	Copper	0.5920	Copper	7440-50-8	100	2.87	2.87
		Plating	0.0060	Tin	7440-31-5	100	0.0291	0.0291
14	Body Molded (X2)	Resin	1.1340	PBT	26062-94-2	53.7	2.96	5.51
				Glass Fiber	65997-17-3	30	1.65	
				Brominated Epoxy Resin	68928-70-1	10.5	0.58	
				Antimony Trioxide	1309-64-4	3	0.17	
				Pigment Blue 15	147-14-8	0.8	0.04	
				Further Additives, Not to Declare	N/A	2	0.11	
15	Body Secondary	Resin	1.3310	PBT	26062-94-2	53.7	3.47	6.46
				Glass Fiber	65997-17-3	30	1.94	
				Brominated Epoxy Resin	68928-70-1	10.5	0.68	
				Antimony Trioxide	1309-64-4	3	0.19	
				Pigment Blue 15	147-14-8	0.8	0.05	
				Further Additives, Not to Declare	N/A	2	0.13	
16	Rotor	Resin	0.4510	Polyamide 66	32131-17-2	53	1.16	2.19
				Glass Fibers	65997-17-3	32	0.70	
				Tetrafluoroethylene Polymer	9002-84-0	13	0.28	
				Dimethylsilicone	63148-62-9	2	0.04	
17	Washer	Teflon	0.0160	Polytetrafluoroethylene	9002-84-0	100	0.08	0.08

MATERIAL DECLARATION SHEET



18	Spring Washer	Beryllium Copper	0.031	Beryllium	7440-41-7	1.90	0.0029	0.15
				Nickel	7440-02-0	0.30	0.0005	
				Cobalt	7440-48-4	0.30	0.0005	
				Iron	7439-89-6	0.30	0.0005	
				Aluminum	7429-90-5	0.10	0.0002	
				Silicon	7440-21-3	0.10	0.0002	
				Copper	7440-50-8	96.70	0.1456	
				Silver	7440-22-4	0.05	0.0001	
				Misc, Not to Declare	N/A	0.25	0.0004	
19	Front Cover	Stainless Steel 304	0.694	Carbon	7440-44-0	0.08	0.003	3.37
				Manganese	7439-96-5	2	0.0674	
				Phosphorus	7723-14-0	0.045	0.0015	
				Sulfur	7704-34-9	0.03	0.0010	
				Silicon	7440-21-3	0.75	0.0253	
				Chromium	7440-47-3	18	0.6066	
				Nickel	7440-02-0	8	0.2696	
				Iron	7439-89-6	71.095	2.3960	
20	Rivet X4	Aluminum Wire 2117-H-15	0.605	Aluminum	7429-90-5	95.01	2.791	2.94
				Copper	7440-50-8	2.6	0.076	
				Silicon	7440-21-3	0.8	0.024	
				Chromium	7440-47-3	0.09	0.003	
				Manganese	7439-96-5	0.2	0.006	
				Zinc	7440-66-6	0.25	0.007	
				Iron	7439-89-6	0.7	0.021	
				Magnesium	7439-95-4	0.35	0.010	
21	Rear Cover	Stainless Steel 304	0.949	Carbon	7440-44-0	0.08	0.004	4.61
				Manganese	7439-96-5	2	0.092	
				Phosphorus	7723-14-0	0.045	0.002	
				Sulfur	7704-34-9	0.03	0.001	
				Silicon	7440-21-3	0.75	0.035	
				Chromium	7440-47-3	18	0.830	

MATERIAL DECLARATION SHEET



				Nickel	7440-02-0	8	0.369	
				Iron	7439-89-6	71.095	3.276	
22	Adhesive	Adhesive	0.0001	Acrylic Resin	Proprietary	98.8	0.0005	0.0005
				Misc, not to Declare	Proprietary	1.2	0.00001	
23	Lube X2	Lube	0.0032	Decanoic Acid, Mixed Esters with Heptanoic Acid, Octanoic Acid, Trimethylolpropane	68130-53-0	54.40	0.01	0.016
				Lithium 12-Hydroxystearate	7620-77-1	5.70	0.001	
				Isohexadecyl-Isooctadecanoate	52006-45-8	33.70	0.005	
				Polyisobutylene	9003-27-4	6.20	0.001	
24	Lube	Lube	0.0288	Siloxanes and Silicones, Di-Me, Di-Ph	68083-14-7	68.90	0.096	0.14
				Lithium Stearate	4485-12-5	25.40	0.036	
				Silane, Dichlorodimethyl-Reaction Products with Silica	68611-44-9	4.80	0.007	
				Diphenylamine	122-39-4	0.90	0.001	
		Total weight	20.5922					

This Document was updated on: **02/09/2026**

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.