


MATERIAL DECLARATION SHEET



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|-----------------|-----------------|-----|-----|---|
| Material Number | PEC12R | | |  |
| Product Line | Encoder | | | |
| Compliance Date | Since Inception | | | |
| RoHS Compliant | Yes | MSL | N/A | |

| No. | Construction Element (subpart) | Homogeneous Material | Material weight [g] | Homogeneous Materials/ Substances | CASRN If applicable | Materials Mass % | Material Mass % of total unit wt. | Subpart mass of total wt. [%] |
|-----|--------------------------------|----------------------|---------------------|-----------------------------------|---------------------|------------------|-----------------------------------|-------------------------------|
| 1 | Bracket | SPCC-SB | 0.923 | Carbon | 7440-44-0 | 1 | 0.355 | 35.5 |
| | | | | Manganese | 7439-96-5 | 5 | 1.775 | |
| | | | | Phosphorus | 7723-14-0 | 5 | 1.775 | |
| | | | | Iron | 7439-89-6 | 88 | 31.24 | |
| | | | | Silicon | 7440-21-3 | 1 | 0.355 | |
| | | Plating | 0.01 | Tin | 7440-31-5 | 99.9 | 0.384 | 0.385 |
| | | | | Copper | 7440-50-8 | 0.0004 | 0.0000015 | |
| | | | | Antimony | 1309-64-4 | 0.0136 | 0.000052 | |
| | | | | Aluminum | 1344-28-1 | 0.00034 | 0.0000013 | |
| | | | | Iron | 7439-89-6 | 0.0034 | 0.000013 | |
| 2 | Shaft | PC | 0.425 | Polycarbonate | 25037-45-0 | 100 | 16.35 | 16.35 |
| 3 | Rotor | PC | 0.108 | Polycarbonate | 25037-45-0 | 100 | 4.15 | 4.15 |
| 4 | Switch Insulation Adopter | PBT | 0.034 | Glass | 65997-17-3 | 20 | 0.26 | 1.31 |
| | | | | Poly(butylene terephthalate) | 30965-26-5 | 65 | 0.85 | |
| | | | | Antimony Oxide | 1309-64-4 | 4 | 0.052 | |
| | | | | Flame Retardant | 68928-70-1 | 10 | 0.13 | |
| | | | | Additives | | 1 | 0.013 | |

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|-----|--------------------------------|--------------------------|---------------------|-----------------------------------|---------------------|------------------|-----------------------------------|-------------------------------|
| 5 | Detent Spring | Bronze (Without plating) | 0.127 | Copper | 7440-50-8 | 91.44 | 4.47 | 4.855 |
| | | | | Tin | 7440-31-5 | 8.45 | 0.41 | |
| | | | | Phosphorus | 7723-14-0 | 0.09 | 0.004 | |
| | | | | Lead | 7439-92-1 | 0.003 | 0.0001 | |
| | | | | Zinc | 7440-66-6 | 0.004 | 0.0002 | |
| | | | | Iron | 7439-89-6 | 0.002 | 0.000098 | |
| 6 | Switch Dome | Bronze | 0.05 | Copper | 7440-50-8 | 91.44 | 1.76 | 1.922 |
| | | | | Tin | 7440-31-5 | 8.45 | 0.16 | |
| | | | | Phosphorus | 7723-14-0 | 0.09 | 0.002 | |
| | | | | Lead | 7439-92-1 | 0.003 | 0.00006 | |
| | | | | Zinc | 7440-66-6 | 0.004 | 0.000077 | |
| | | | | Iron | 7439-89-6 | 0.002 | 0.000038 | |
| | | Plating | 0.005 | Silver | 7440-22-4 | 100 | 0.19 | 0.19 |
| 7 | Wipers | Copper-Nickel-Zinc Alloy | 0.0258 | Copper | 7440-50-8 | 62 | 0.62 | 0.99 |
| | | | | Nickel | 7440-02-0 | 19.15 | 0.19 | |
| | | | | Manganese | 7439-96-5 | 0.5 | 0.005 | |
| | | | | Phosphorus | 7723-14-0 | 0.1 | 0.00099 | |
| | | | | Zinc | 7440-66-6 | 18 | 0.18 | |
| | | | | Iron | 7439-89-6 | 0.25 | 0.0024 | |

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|---------|--------------------------------|----------------------|---------------------|-----------------------------------|---------------------|------------------|-----------------------------------|-------------------------------|
| 8 | Switch Element & Terminals | PBT | 0.185 | Glass | 65997-17-3 | 20 | 1.423 | 7.111 |
| | | | | Poly(butylene terephthalate) | 30965-26-5 | 65 | 4.625 | |
| | | | | Antimony Oxide | 1309-64-4 | 4 | 0.28 | |
| | | | | Flame Retardant | 68928-70-1 | 10 | 0.712 | |
| | | | | Additives | | 1 | 0.071 | |
| | | Brass | 0.205 | Copper | 7440-50-8 | 61.5 | 4.85 | 7.86 |
| | | | | Zinc | 7440-66-6 | 35.5 | 2.799 | |
| | | | | Lead | 7439-92-1 | 3 | 0.237 | |
| Plating | 0.02 | Silver | 7440-22-4 | 100 | 0.77 | 0.77 | | |
| 9 | Code Element & Terminals | PBT | 0.315 | Glass | 65997-17-3 | 20 | 2.423 | 12.07 |
| | | | | Poly(butylene terephthalate) | 30965-26-5 | 65 | 7.875 | |
| | | | | Antimony Oxide | 1309-64-4 | 4 | 0.485 | |
| | | | | Flame Retardant | 68928-70-1 | 10 | 1.215 | |
| | | | | Additives | | 1 | 0.121 | |
| | | Brass | 0.155 | Copper | 7440-50-8 | 61.5 | 3.667 | 5.942 |
| | | | | Zinc | 7440-66-6 | 35.5 | 2.116 | |
| | | | | Lead | 7439-92-1 | 3 | 0.179 | |
| Plating | 0.015 | Silver | 7440-22-4 | 100 | 0.58 | 0.58 | | |
| 10 | Lube | Polysiloxane | 0.00056 | Polysiloxane | 9011-19-2 | 100 | 0.015 | 0.015 |
| | | Total weight | 2.60336 | | | | | |

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This Document was updated on: March 17, 2015

Important remarks:

1. It is the responsibility of the user to verify they are accessing the latest version.
2. Please see RoHS Certificate of Compliance for exemptions used, if any.