



Certificate for RoHS Compliant Products

Bourns, Inc. certifies, as of this date, the products listed below (“Products”) are designated as conforming to the requirements of the European Union’s Restrictions on use of Certain Hazardous Substances in Electrical and Electronic Equipment Directive, 2011/65/EU (commonly called “RoHS2”) and amendment of Annex II on March 31, 2015, 2015/863 (“RoHS3”).

The information presented is based on Bourns’ understanding of the directives and Bourns’ knowledge of the materials that are used in the Products as of the date of disclosure, which, in some cases, is based on information provided by third parties.

Magnetic Encoders: EMS22A; EMS22D; EMS22P, EMS22Q

Restricted Substances	RoHS Maximum Concentration Value (MCV) (ppm)*
Cadmium (Cd)	100
Lead (Pb)	1,000
Mercury (Hg)	1,000
Hexavalent Chromium (Cr ⁺⁶)	1,000
Polybrominated biphenyls (PBB)	1,000
Polybrominated diphenyl ethers (PBDE)	1,000
Bis(2-ethylhexyl)phthalate (DEHP)	1,000
Butyl benzyl phthalate (BBP)	1,000
Dibutyl phthalate (DBP)	1,000
Diisobutyl phthalate (DIBP)	1,000

* Maximum limit does not apply to applications covered by RoHS exemptions. MCV is based on homogeneous materials as defined in the RoHS Directive.

Exemptions used (if box is checked):

- 6a. Lead as an alloying element in steel containing up to 0.35% lead by weight
- 6b. Lead as an alloying element in aluminum containing up to 0.4% lead by weight
- 6c. Lead as an alloying element as a copper alloy containing up to 4% lead by weight.
- 7a. Lead in high melting temperature type solders (i.e., lead-based alloys containing more than 85% by weight or more lead).
- 7(c)-I. Electrical & electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors.

Signature

Alain Leon, Product Line Manager Sensors & Controls

Date:

July 12, 2019

EMS

General Information: The information provided herein is to the best of Bourns, Inc. knowledge and belief. To the extent that Bourns is relying on information provided by third parties, Bourns makes no warranty as to the accuracy or completeness of such information.