

Material declaration for EN11-VNM1BF15

No content here is banned per E.U. RoHS. Average mass of these EN11 encoders is 3.7 grams each
Weights above one milligram rounded to the nearest mg. Values less than 1 mg given in scientific notation.

Sub-component	Material	% of Total Mass	Substance Name	CAS #	Substance Weight (grams)	Special Classification	
Shaft	Al alloy	29.88%	Si	7440-21-3	0.0044	RoHS exempt, Pb in aluminum	
			Fe	7439-89-6	0.0077		
			Cu	7440-50-8	0.0552		
			Mn	7439-96-5	5.52E-04		
			Mg	7439-95-4	0.0055		
			Pb	7439-92-1	0.0022		
			Bi	7440-69-9	0.0022		
			Zn	7440-66-6	0.0033		
			Al	7429-90-5	1.0219		
			Cover	PBT blend	1.65%		PBT polymer
Brominated epoxy resin	68928-70-1	0.0153					
Antimony oxide	1309-64-4	0.0061					
Glass fiber	65997-17-3	0.0183					
Ring button	Steel	3.36%	C	7440-44-0	0.0010		
			Si	7440-21-3	2.48E-04		
			Mn	7439-96-5	5.33E-04		
			P	7723-14-0	1.20E-05		
			S	7704-34-9	1.20E-05		
			Cu	7440-50-8	2.50E-05		
			Fe	7439-89-6	0.1222		
Frame	Steel	25.59%	C	231-153-3	0.0019		
			Mn	231-105-1	0.0019		
			P	231-768-7	3.78E-04		
			S	231-722-6	3.78E-04		
			Si	231-130-8	0.0028		
			Al	231-072-3	4.16E-04		
			Fe	231-096-4	0.9367		
	Oil		0.014%	Calcium sulfonate	61789-86-4		4.80E-04
				Octadecyl 3,5-Di(tert)-butyl-4-hydroxyhydrocinnamate	2082-79-3		2.00E-05
Shaft set	Zn alloy	33.03%	Al	7429-90-5	0.0488	RoHS allowed, Pb below 0.1% threshold	
			Cu	7440-50-8	0.0061		
			Mg	7439-95-4	6.10E-04		
			Fe	7439-89-6	1.22E-04		
			Pb	7439-92-1	1.20E-05		
				Cd	7440-43-9		1.00E-06
				Sn	7440-31-5		1.00E-06
				Zn	7440-66-6		1.1634
Conductor base	POM	1.06%	Acetal polymer	unknown	0.0382		
			Stabilizer	unknown	7.79E-04		
Click	Steel	0.27%	C	7440-44-0	7.00E-06		
			Si	7440-21-3	5.00E-06		
			Mn	7439-96-5	1.14E-04		
			P	7723-14-0	3.00E-06		
			S	7704-34-9	trace		
			Cr	7440-47-3	0.0018		
			Ni	7440-02-0	8.31E-04		
			Fe	7439-89-6	0.0072		
Spacer plate	Steel	0.27%	C	7440-44-0	7.00E-06		
			Si	7440-21-3	5.00E-06		
			Mn	7439-96-5	1.14E-04		
			P	7723-14-0	3.00E-06		
			S	7704-34-9	trace		
			Cr	7440-47-3	0.0018		
			Ni	7440-02-0	8.31E-04		
			Fe	7439-89-6	0.0072		
Conductor	Phosphor bronze	1.27%	Cu	7440-50-8	0.0431		
			Sn	7440-31-5	0.0038		

			Zn	7440-66-6	9.40E-05	
			Pb	7439-92-1	5.00E-06	RoHS exempt, Pb in Cu
			Fe	7439-89-6	1.90E-05	
			P	7723-14-0	2.40E-05	
	Ag plating	0.054%	Ag	506-64-9	2.00E-03	
Slider base	PBT blend	2.22%	PBT polymer	30965-26-5	0.0287	
			Brominated epoxy resin	68928-70-1	0.0205	Halogenated epoxy, contains BPA
			Antimony oxide	1309-64-4	0.0082	Antimony fire retardant
			Glass fiber	65997-17-3	0.0246	
Slider	Phosphor bronze	1.16%	Cu	7440-50-8	0.0394	
			Sn	7440-31-5	0.0034	
			Zn	7440-66-6	8.60E-05	
			Pb	7439-92-1	4.00E-06	RoHS exempt, Pb in Cu
			Fe	7439-89-6	1.70E-05	
			P	7723-14-0	2.20E-05	
	Ag plating	0.054%	Ag	506-64-9	2.00E-03	
Lubricating oil	PAO lubricant	0.054%	Polyisobutylene	9003-27-4	3.60E-04	
			PAO	68037-01-4	0.0016	
			Fumed silica	68611-44-9	4.00E-05	
Shaft oil	PAO lubricant	0.054%	Polyisobutylene	9003-27-4	0.0012	
			PAO	68037-01-4	7.00E-04	
			Fumed silica	68611-44-9	1.00E-04	