

Central Bureau for Astronomical Telegrams
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V. Chiorny, Kharkiv Observatory; P. Pravec, Ondrejov Observatory; D. Romeuf, Lyon University; R. Montaignut, A. Leroy, and C. Gillier, OPERA Observatory, France; V. Benishek, Belgrade Astronomical Observatory; A. Marchini, R. Papini, and F. Salvaggio, Dipartimento di Scienze Fisiche, Della Terra e Dell'Ambiente, University of Siena; and J. Oey, Blue Mountains Observatory, Leura, NSW, Australia, report that photometric observations taken with a 0.70-m telescope at the Chuguev station of the Kharkiv Observatory in Ukraine, a 0.36-m telescope at Pommier Observatory in France, a 0.20-m telescope at the OPERA Observatory, a 0.35-m telescope at the Sopot Observatory in Serbia, a 0.30-m telescope at the Astronomical Observatory of the University of Siena, and a 0.61-m telescope at the Blue Mountains Observatory during 2016 Oct. 25 to Nov. 1 reveal that minor planet (5112) is a binary system with an orbital period of 20.74 ± 0.01 hr. The primary shows a period of 2.7995 ± 0.0001 hr and has a lightcurve amplitude of 0.12 mag at solar phases 4-8 degrees, suggesting a nearly spheroidal shape. Mutual eclipse/occultation events that are 0.10- to 0.17-magnitude deep indicate a secondary-to-primary mean-diameter ratio of 0.31 ± 0.02 . The secondary's rotation appears synchronous with the orbital motion and it has a lightcurve amplitude of 0.02-0.03 mag in the combined primary-plus-secondary lightcurve, suggesting a moderately elongated secondary shape with the equatorial axis ratio being about 1.3.

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