We report the detection of an X-ray source in JEM-X mosaic images of the field observed during the INTEGRAL public Target of Opportunity on SN2011fe, that took place between 2011 October 7, 18:10 (UTC) and November 6, 5:22 (UTC). The source position is determined at RA, Dec = 219.075, +58.792 deg, with an uncertainty of 1.5 arcmin, at only 33 arcsec from the SIMBAD position for the Seyfert 1.5 galaxy Markarian 817, for which an X-ray luminosity increase in recent years has been reported (Winter et al., 2011, ApJ 728, 28). Though the detection is close to the sensitivity limit of the instruments, the source is clearly visible in independent mosaic images from each unit of the twin JEM-X monitor. Combining the whole 400 ks dataset for both JEM-X units the source is detected at 8 sigma between 3-10 keV with an average flux of 0.7 +/-0.2 mCrab, or 1.5 e-11 erg/cm2/s. There is no firm detection above 10 keV with a 5-sigma upper limit of 0.4 mCrab between 10-25 keV. The source is not detected by the IBIS/ISGRI camera with a flux upper limit of 0.7 mCrab in the 18-40 keV energy range. No significant variability is detected during the above-mentioned time interval. We conclude that both the position and the flux of the source detected by JEM-X are consistent with its identification with Mrk 817.