

Title (en)
Inkjet ink level detection

Title (de)
Tintenstanddetektor für Tintenstrahldrucker

Title (fr)
Détecteur de niveau d'encre pour imprimante à jet d'encre

Publication
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Application
EP 99106827 A 19990406

Priority
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• US 18195398 A 19981028

Abstract (en)
[origin: EP0953450A1] An inkjet printing system (Fig. 4, Fig. 5) includes a permanent or semi-permanent inkjet pen (28, 30, 32, 34) containing small glass beads (58) for ink containment and to provide backpressure to the ink. The inkjet pen walls (50) are transparent, and the printer has an optical sensor (60) that detects changes in reflectivity in the glass heads (58). The glass beads (58) change in reflectivity depending on whether or not they are saturated with ink. The change in reflectivity therefore functions as an effective out-of-ink detector. When an out of ink indication is made, the printer (Fig. 4, Fig. 5) executes a refill of the pen (28, 30, 32, 34). Two embodiments of refill mechanisms are disclosed: a trailing tube design (Fig. 1, Fig. 4), and a take-a-sip design. <IMAGE>

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IPC 8 full level
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Cited by
EP1710084A3; EP1095779A3; CN113692354A; EP3946953A4; WO2008055102A3; US11884063B2; US6402306B1; US11809100B2; US11833813B2; WO2008055102A2; US7210755B2; US7802859B2; US7922274B2; US11890879B2; US12011920B2; US11833847B2

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