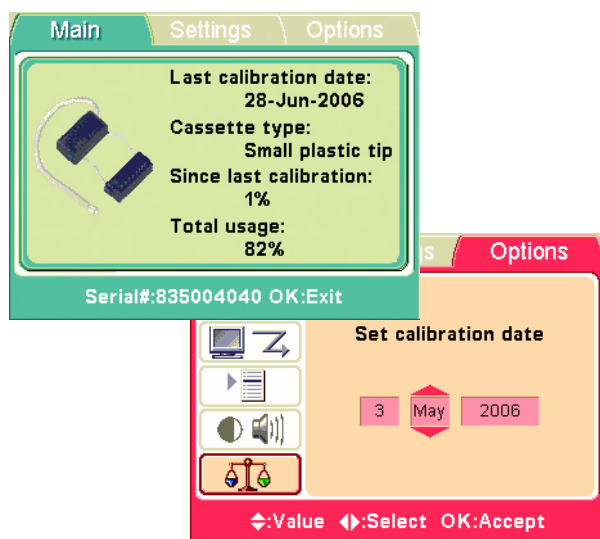


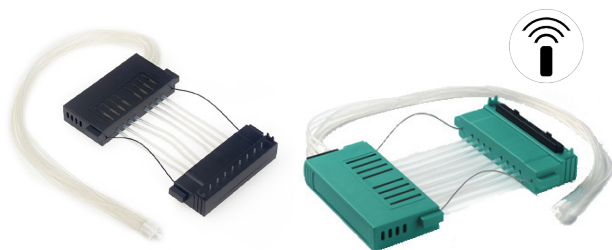
Thermo Scientific Multidrop Combi SMART is a new addition to the extensive range of Thermo Scientific Multidrop bulk reagent dispensers. This instrument adds an advanced built-in tracking system to the Multidrop Combi.

Thermo Scientific Multidrop Combi SMART

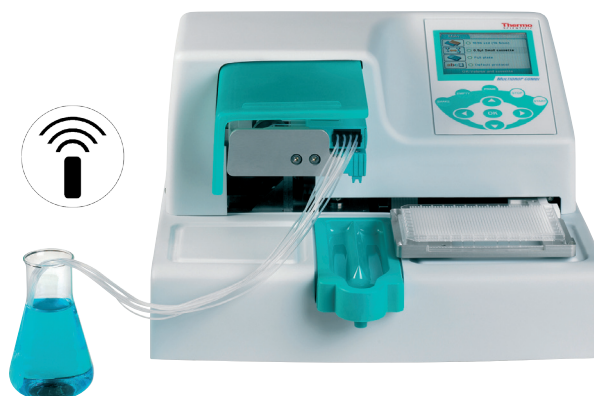


Cassette lifetime traceability

Multidrop Combi SMART shows the exact lifetime status of the dispensing cassette. The dispensing action is continuously monitored and the user can immediately verify cassette status from the instrument display. This provides improved reliability and traceability as well as instantaneous identification of cassette type, last calibration date and total usage, greatly enhancing the user's efficiency and reporting capability.



Detachable dispensing cassettes



Increased versatility

Multidrop Combi SMART offers the same excellent versatility to meet all bulk reagent dispensing requirements as the Multidrop Combi with the added feature of dispensing traceability. The modern graphical user interface makes it easy to select dispensing parameters for all plate formats (96–1536) including automatic plate height adjustment. Multidrop Combi SMART's precise dispensing means reproducible results over an unparalleled volume range of 0.5–2500 μ l.

Controlled dispensing

The Multidrop Combi equipped with the SMART feature recognizes that the correct SMART dispensing cassette is inserted into the instrument. An error signal indicates if the user mistakenly installs the wrong dispensing cassette. The Multidrop Combi SMART will only allow dispensing when the appropriate dispense cassette is installed. The possibility of dispensing the wrong volume by using an incorrect dispensing cassette is thus eliminated further enhancing the reliable performance of the Multidrop Combi SMART.

Dispensing cassettes equipped with the SMART tag

The instrument utilizes an 8-channel detachable dispensing cassette equipped with an information tag which contains the cassette usage data. The dispensing cassettes are the same as those normally used with the Multidrop Combi, only a memory tag containing the cassette information is added. The cassettes are easily identifiable by an antenna tag inserted in every cassette package as well as on the cassette itself. Thus the same selection of the cassettes, including one standard tube cassette and two versions of small tube cassette, is available for the user. One cassette of each type is included with the purchase of each instrument. Maintenance of the SMART dispensing cassette is equal to standard dispensing cassettes. They can be autoclaved and used for assays where dispensing in sterile conditions is required. The SMART dispensing cassettes can be calibrated and the new calibration date can be inserted into the memory tag through the instrument keypad.

Interchangeable cassettes with other Multidrops

The Multidrop Combi SMART can also accommodate normal dispensing cassettes, not equipped with a SMART tag. This allows the end-user the option of utilizing dispense cassettes that may already be available in the laboratory and provides flexibility for assays where tracking information is not necessary.

The Multidrop Combi SMART operates like the Multidrop Combi when a dispensing cassette without the information tag is inserted into the Multidrop Combi. No cassette lifetime information is displayed on the screen or through the menus.

Upgradeable SMART feature

The existing Multidrop Combi instruments can be easily upgraded with the SMART feature. Instruments above serial number 60 can be serviced with the SMART feature. After upgrade the new dispensing cassette lifetime tracking feature is available for your assays.

Thermo Scientific Multidrop Combi SMART Technical Information

	Technical feature	
Plate types	6-, 12-, 24-, 48-, 96-, 384-, 1536-well plates (plate height 5-50 mm)	
Dispensing volume range	0.5- 2500 µl	
Dispensing precision (CV%)	Small tube dispensing cassette 0.5µl: CV≤10% 2 µl: CV≤ 5% 10 µl: CV≤ 3% >10 µl: CV≤ 3%	Standard tube dispensing cassette 5 µl: CV≤ 10% 20 µl: CV≤ 1.5% 100 µl: CV≤ 1% >100 µl: CV≤ 1%
Dispensing accuracy	Small tube dispensing cassette 2 µl: ± 10% (typical), 10 µl: ± 5% (typical), > 10 µl: ± 5% (typical)	Standard tube dispensing cassette 5 µl: ± 3% (typical), 20 µl: ± 2% (typical), 100 µl: ± 1% (typical), > 100 µl: ± 1% (typical)
Dispensing speed	96-well plate: 10µl in 3 seconds, 20µl in 4 s., 100µl in 10 s. 384-well plate: 1µl in 5 s., 5µl in 5 s., 10µl in 6 s., 20µl in 9 s. 1536-well plate: 1µl in 14 s., 5µl in 26 s.	
Dispensing increments	Small tube dispensing cassette: 0.5µl increments Stand tube dispensing cassette: 5µl increments	
Dead volume	< 1 ml vol range 0.5-50 µl < 7 ml vol range > 50 µl	
Interface	Serial RS-232, USB	
Overall dimensions	220(H) x 355(W) x 330(D) mm 8.6(H) x 14(W) x 12.9(D) in.	
Weight	9.1 kg (15.7 lbs.)	
Power requirements	100-240 Vac, 50/60 Hz, nominal	

Thermo Scientific Multidrop Combi SMART Ordering Information

5840310	Multidrop Combi with SMART option, 100-240V 50/60 Hz
24073292	SMART Small tube plastic tip dispensing cassette
24073297	SMART Small tube metal tip dispensing cassette
24072675	SMART Standard tube dispensing cassette
2807250	Multidrop Combi SMART upgrade kit

North America: +1 866 984 3766

Europe: Austria +43 1 801 40 0, Belgium +32 2 482 30 30, Finland +358 9 329 100,
France +33 2 28 03 20 00, Germany +49 800 153 6376, Italy +39 02 95059 1, Netherlands
+31 76 571 4440, Russia/CIS +7 095 225 11 15, Spain/Portugal +34 93 223 3154,
Switzerland +41 44 454 12 12, UK/Ireland +44 870 609 9203
Asia: India +91 22 5542 9494, Japan +81 45 453 9220, China +86 21 6865 4588 or +86 10
5850 3588, Other Asian countries +852 2885 4613
Countries not listed: +49 6184 90 6940 or +33 2 28 03 20 00

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