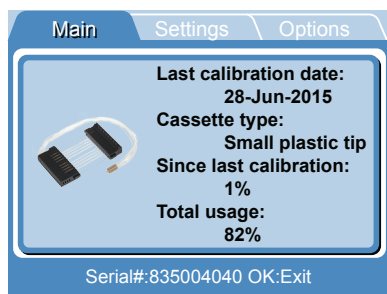


# Thermo Scientific Multidrop Combi SMART Dispenser

*The Thermo Scientific™ Multidrop™ Combi SMART dispenser includes an advanced built-in tracking system, providing easy, reliable traceability for cassette usage.*

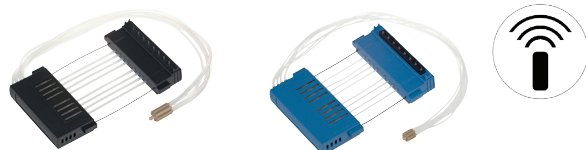
## Cassette life time traceability

The Multidrop Combi SMART dispenser allows users to see 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.



## Increased versatility

The Multidrop Combi SMART dispenser offers the same excellent versatility to meet all bulk reagent dispensing requirements as the Multidrop Combi, with the added feature of dispensing traceability. The graphical user interface makes it easy to select dispensing parameters for all plate formats (96–1,536) including automatic plate height adjustment. The Multidrop Combi SMART instrument's precise dispensing means reproducible results over an unparalleled volume range of 0.5–2,500  $\mu$ l.



Detachable dispensing cassettes



## Controlled dispensing

The Multidrop Combi SMART dispenser recognizes when the correct SMART dispensing cassette is inserted into the instrument. An error signal indicates if the user mistakenly installs the wrong dispensing cassette. The instrument will only allow dispensing when the appropriate cassette is installed, which helps prevent user errors, like dispensing the wrong volume due to incorrect cassette selection.

## Dispensing cassettes equipped with the SMART tag

The instrument utilizes an 8-channel detachable dispensing cassette equipped with an information tag that 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 cassettes—including one standard tube cassette and two versions of small tube cassettes—is available to the user. One cassette of each type is included with the purchase of each instrument.

Maintenance requirements for the SMART dispensing cassette are the same as for the 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.

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## Interchangeable cassettes with other Multidrop Dispensers

The Multidrop Combi SMART dispenser can also accommodate normal dispensing cassettes that are 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 that do not require tracking information.

The Multidrop Combi SMART dispenser can also operate with cassettes that do not have SMART information tags, but cassette lifetime information will not be displayed on the screen or through the menus.

## Thermo Scientific Multidrop Combi SMART Dispenser Technical Information

	Technical features	
<b>Plate types</b>	6-, 12-, 24-, 48-, 96-, 384-, 1,536-well plates (plate height 5–50 mm)	
<b>Dispensing volume range</b>	0.5–2,500 µl	
<b>Dispensing precision (CV%)</b>	Small tube dispensing cassette 0.5 µl: 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%
<b>Dispensing accuracy</b>	Small tube dispensing cassette 2 µl: ± 10% 10 µl: ± 5% > 10 µl: ± 5%	Standard tube dispensing cassette 5 µl: ± 3% 20 µl: ± 2% 100 µl: ± 1% > 100 µl: ± 1%
<b>Dispensing speed</b>	96-well plate: 10 µl in 3 seconds, 20 µl in 4 s., 100 µl in 10 s. 384-well plate: 1 µl in 5 s., 5 µl in 5 s., 10 µl in 6 s., 20 µl in 9 s. 1,536-well plate: 1 µl in 14 s., 5 µl in 26 s.	
<b>Dispensing increments</b>	Small tube dispensing cassette: 0.5 µl increments Stand tube dispensing cassette: 5 µl increments	
<b>Dead volume</b>	< 1 ml vol range 0.5–50 µl < 7 ml vol range > 50 µl	
<b>Interface</b>	Serial RS-232, USB	
<b>Overall dimensions</b>	220(H) x 355(W) x 330(D) mm 8.6(H) x 14(W) x 12.9(D) in.	
<b>Weight</b>	9.1 kg (15.7 lbs.)	
<b>Power requirements</b>	100–240 V AC, 50/60 Hz, nominal	

## Thermo Scientific Multidrop Combi SMART Ordering Information

<b>5840320</b>	Multidrop Combi with SMART 2 option, 100–240 V 50/60 Hz
<b>N15133</b>	SMART 2 small tube plastic tip dispensing cassette, new RFID tag
<b>N15134</b>	SMART 2 small tube plastic tip dispensing cassette 5-pack, new RFID tag
<b>N15135</b>	SMART 2 small tube metal tip dispensing cassette, new RFID tag
<b>N15136</b>	SMART 2 small tube metal tip dispensing cassette 5-pack, new RFID tag
<b>N15137</b>	SMART 2 standard tube dispensing cassette, new RFID tag
<b>N15138</b>	SMART 2 standard tube dispensing cassette 5-pack, new RFID tag
<b>N15139</b>	SMART 2 long standard tube dispensing cassette (length of tubing 50–200 cm in 10 cm increments), new RFID tag

[www.thermoscientific.com/multidrop](http://www.thermoscientific.com/multidrop)

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