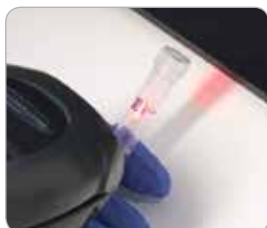


4titude[®] TubeMarker[™] 2

Designed to directly print text, linear barcodes, 2D codes and graphics on tubes



Clear – Flexible – Durable

- Prints directly on the surface of plastic tubes from 0.2 ml to 50 ml
Labels or stickers are not required
- Clearer and more durable marking compared to marker pen
Consistently legible text and barcodes at high resolutions
- Resistant to alcohol, water, liquid nitrogen, DMSO and mechanical abrasion
Long lasting sample identification at competitive “per mark” cost

TubeMarker™ 2

The TubeMarker™ 2 allows printing directly onto the surface of plastic laboratory tubes between 6 mm – 30 mm in diameter.

There is no need for using labels or marker pens. Marking is resistant to ethanol, isopropanol, water, DMSO*, liquid nitrogen and mechanical abrasion. The prints are also stable over a wide temperature range (-196°C to 100°C). Markings do not transfer when touching the tubes.

Several lines of text can be printed, for example: sample name, sampling site, your name, date and time etc. All TrueType fonts available on the connected computer can be printed in a range of different sizes, which determines the maximum printable content. Bold and italic type is also available.

The instrument can also print linear barcodes, datamatrix (2D) codes and graphic files (monochrome .bmp, .gif or .tiff) such as logos. Print orientation can be vertical or horizontal (except for barcodes which print vertically only).

The TubeMarker™ 2 includes an Automatic Printing Delay feature, where the instrument is able to detect the presence of a tube and automatically prints the next label entry in the software. This feature makes printing to the tube surface much easier and faster than marking by hand.

No more smudged, illegible writing on tubes!

No more disappearing labels after each ethanol wash step!

No more fiddling with tiny labels!

Clean, fuss-free and durable labelling of all common tube formats with the TubeMarker™ 2

Features



Instrument Features

- Prints directly on the surface of plastic laboratory tubes – labels and stickers are not required
- Most 0.2 ml – 50 ml volume tubes with a smooth surface can be used
- Both vertical and horizontal markings are producible
- Prints text, linear barcodes, datamatrix (2D) codes and graphic files (monochrome .bmp, .gif or .tiff) such as logos
- Automatic Printing Delay for increased throughput and easier functionality
- Labels printed in seconds
- Easy import of data from Microsoft® Excel such as .xls, .xlsx and .csv files
- Optimised tube settings can be saved for future reference
- Adjustable tube support platform for tubes without a lip / collar or for altering the label position
- Adjustable sled pivot point improves overall print quality for larger labels and tubes



Printing Quality

- Clearer and more durable marking compared to marker pen
- Marking is resistant to ethanol (70%), isopropanol (70%), methanol (>98.5%), DMSO*, pure haematoxylin, liquid nitrogen, water and mechanical abrasion**
- Marking is temperature resistant up to 100°C and down to -196°C (liquid nitrogen)
- Patent pending Thermal Pixel Printing technology



Economic Efficiency

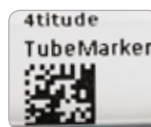
- A 300 m ink ribbon can be used to mark up to 100,000 tubes*** – competitive “per mark” cost

* The blue ribbon is resistant to 70% DMSO, the black and white ribbons are 100% DMSO resistant; ** Marking is not resistant to Xylene and moderately resistant to Acetone; *** Depending on horizontal dimensions of the print. E.g. when printing a 6 x 6 mm 2D code, one ribbon is sufficient for 50,000 prints.



Equipment

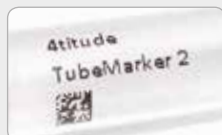
- Black, white and metallic blue ink ribbons are available for clear printing on all tube colours and tubes with dark coloured content
- Changing the ink ribbon is quick and easy
- Multiple adaptors are available to accommodate a wide range of tubes on the market



Exemplary Prints



text + datamatrix code



text + small datamatrix code



text + linear barcode



text + wide linear barcode



graphic + text + linear barcode



2 ml microcentrifuge tube



2 ml cryo tube



0.2 ml tube



Matrix tube



2 ml screw cap tube



5 ml cryo tube



15 ml tube



50 ml tube

Tube Compatibility

The standard TubeMarker™ 2 package contains tube adaptors with hole diameters of 8.5, 11.5 and 12.7 mm. These adaptors are compatible with the most common centrifuge and cryogenic tubes; 1.5 ml/2 ml tubes (4ti-0681, hole diameter 11.5 mm), 0.5 ml tubes (4ti-0682, hole diameter 8.5 mm), 2D cluster tubes (4ti-0683, hole diameter 8.5 mm) and cryogenic tubes (4ti-0684, hole diameter 12.7 mm).

The integrated adjustable tube support platform and magnetic pole attachment, should be used to support tubes without a "lip" or external cap. The applicable tube adaptor should be used for alignment.

Additional tube adaptors are available to support a wider range of tubes available on the market. Most notably, for blood and vacutainer tubes, as well as 15 ml and 50 ml falcon tubes. Custom adaptors are also available on request, please check our website for more details.

The table below shows some exemplary tubes that have been tested for optimal print quality on the TubeMarker™ 2.

Tube Compatibility			
Supplier	Tube	Product Code	Tube Adaptor
4titude®	1.5 ml and 2.0 ml Microcentrifuge Tubes, with safe-lock cap	4ti-0797/4ti-0798	4ti-0681
4titude®	2 ml Cryotube, barcoded, external cap/internal cap	4ti-4010/4ti-4020	4ti-0684
4titude®	5 ml Cryotube, barcoded, external cap/internal cap	4ti-4011/4ti-4021	4ti-0684
Eppendorf	Safe-Lock Tubes, 0.5 mL, Eppendorf Quality™	0030121023	4ti-0682
Matrix	2D barcoded, all volumes, internal/external cap	Diverse	4ti-0685-4
Sarstedt	Screw Cap Micro Tube, 2 ml, with knurls	72.693.465	4ti-0685-1
TPP	15 ml centrifuge tube, external cap	91015	4ti-0685-2
TPP	50 ml centrifuge tube, external cap	91050	4ti-0685-3

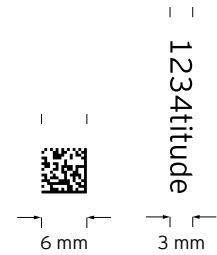
Prints per Ribbon

The maximum number of prints per ribbon depends on the horizontal length of the print.

For example, a horizontal print of 3 mm in width (e.g. one line of vertical text) will allow you to print close to 100,000 tubes (300 m ribbon length / 3 mm print).

With a 6 x 6 mm datamatrix (2D) print, you can print close to 50,000 tubes (300 m ribbon length / 6 mm print).

There is minimal waste between the prints.



Black, white and metallic blue ink ribbons are available



4titude® 1.5 and 2.0 ml microcentrifuge tubes with frosted writing field are perfectly suited for use with the TubeMarker™ 2; the smooth frosting allows for great printing results



Changing the ink ribbon is quick and easy



Learn more about the TubeMarker™ 2 at www.4ti.co.uk

"The 4titude® TubeMarker™ speeds up tube marking and makes it easy and reliable!"

Laboratory assistant test feedback

Ordering Information

Code	Description
4ti-0680-1	TubeMarker™ 2, printer for marking the side of 0.2 to 50 ml tubes Includes: 4 x tube adaptors (4ti-0681, 4ti-0682, 4ti-0683 and 4ti-0684), AC adaptor 18W 18VDC (input 100-240VAC), USB A-B cable, operation manual, TubeMarker™ 2 software (on USB-Stick), 12 months warranty
4ti-0681	Tube Adaptor for 1.5 ml/2 ml tubes, hole diameter 11.5 mm
4ti-0682	Tube Adaptor for 0.5 ml tubes, hole diameter 8.5 mm
4ti-0683	Tube Adaptor for 2D cluster tubes, hole diameter 8.5 mm
4ti-0684	Tube Adaptor for cryo tubes, hole diameter 12.7 mm
4ti-0685-1	Tube Adaptor for 2 ml screw cap tubes, hole diameter 10.4 mm
4ti-0685-2	Tube Adaptor for 15 ml tubes, hole diameter 18 mm
4ti-0685-3	Tube Adaptor for 50 ml tubes, hole diameter 30 mm
4ti-0685-4	Tube Adaptor for Matrix tubes, hole diameter 8.2 mm
4ti-0685-5	Tube Adaptor for 0.2 ml tubes, hole diameter 6.4 mm
4ti-0686	TubeMarker™ Ribbon, metallic blue, 1 roll, 300 M x 40 mm
4ti-0688	TubeMarker™ Ribbon, white, 1 roll, 300 M x 40 mm
4ti-0689	TubeMarker™ Ribbon, black, 1 roll, 300 M x 40 mm
4ti-0797/ 4ti-0798	Microcentrifuge Tubes, 1.5 ml/2.0 ml, graduated, with frosted window and flat, safe-lock cap

Technical Specifications

Parameter	Specification
Dimension (W x L x H)	270 x 280 x 122 mm
Weight	4.8 kg
Printing area height	6 – 40 mm*
Text orientation	Vertical or horizontal
Max. number of printing rows	8*
Power supply	18V 1000mA
Computer interface	USB 2.0

* Dependent on tube size. Prints to straight part of tubes only.

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