



MACH4 Label Printer

Made in Germany

Product type overview for MACH4



B with tear-off plate

A minimum label height of 30 mm is required for it to be torn off.

1.1 Printer	MACH4		
Print resolution dpi	203	300	600
Print width up to mm	104	105,6	105,6
Print speed up to mm/s	200	200	100



P with tear-off plate and dispensing function

The label height on dispensing is 20 – 200 mm.

1.2 Printer	MACH4		
Print resolution dpi	203	300	600
Print width up to mm	104	105,6	105,6
Print speed up to mm/s	200	200	100



C with tear-off plate and cutter

Labels or continuous material can be cut at a height of just 12 mm.

1.3 Printer	MACH4		
Print resolution dpi	203	300	600
Print width up to mm	104	105,6	105,6
Print speed up to mm/s	200	200	100

Option:

RFID read/write unit

The label printers can also be equipped with an RFID read/write unit for transponders in Smart labels with 13.56 MHz in line with ISO 15693.

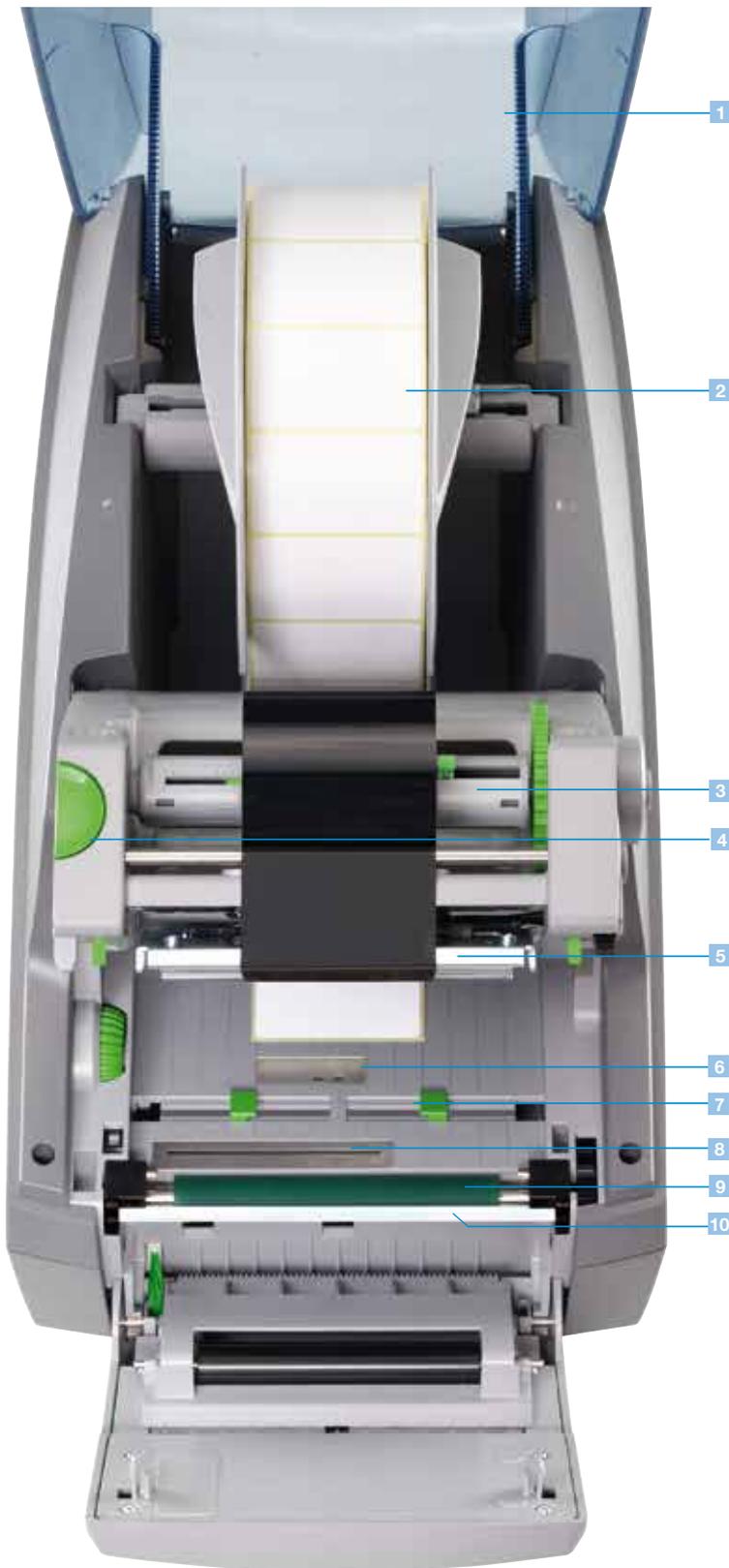


Key features

- MACH4 offers all the features of a high class industrial printer with a wide application range.
- Labels and ribbons can be inserted from the front. The print mechanism and housing are made of premium materials and are perfectly harmonized in their form and function.
- Easy and comfortable handling and high reliability were the requirements during development. The large display with white backlight offers optimum readability.
- The navigation pad with the additional “Enter” button simplifies operation, with only the operated functions being displayed.
- The centered label path eliminates the need for adjustments and avoids wrinkling of the ribbon.
- The high-tech electronic board incorporates all the requisite interfaces as standard and works with all kinds of adapters.



Technical details



- 1 Cover with large window**
Can be opened wide. The integrated cushioning mechanism ensures smooth closing. The label stock is visible at all times.
- 2 Media hub**
The roll is inserted into the media hub and centered automatically. Materials of different widths fit easily within the box.
- 3 Ribbon retainer**
The ribbon can be slid onto a ribbon supply hub with spring mounted brackets. It can be centered with a movable flange and a positioning indicator. The ribbon can be inserted quickly and easily into the print mechanism.
- 4 Print mechanism**
It can be opened at the push of a button and offers easy access.
- 5 Printing with 203, 300 or 600 dpi**
The printheads can switch easily between 203 and 300 dpi. The printer detects the resolution automatically.
- 6 Gap sensor**
To detect the beginning or end of labels, the gap sensor is mounted in the center of the label path. With multi-track labels, the user can switch to another sensor that is shifted 10 mm sideways.
- 7 Label guide**
The adjustment knob can be used to adjust the width of the printing area in order to center the labels.
- 8 Reflex sensor**
The adjustable reflex sensor can be used to identify the start of a label, print marks and cut-outs
- 9 Drive roller**
The drive roller can be easily removed for cleaning or replacement.
- 10 Peel-off plate**
The liner is guided down behind the operation panel. The label is removed from its liner at the peel-off-plate.

Interfaces



- 1 RS232C interface.
- 2 USB 2.0 slave interface.
- 3 Ethernet 10/100 Base T interface with TCP/IP.
- 4 Slot for wireless LAN card.
- 5 Two USB master interfaces for connecting an external operation panel, keyboard, scanner, USB flash drive or service key.
- 6 Slot for CompactFlash Type I memory card.

Options

- 
 - Centronics bi-directional interface acc. to IEEE 1284.
 - RS422/RS485 interface 1,200 to 230,400 Baud/8 Bit.
 - The interfaces are plugged into the PC.
 - Connection to the printer via mini USB connection cable.
- 
 - Label selection – I/O box.
 - Up to 16 different labels can be loaded via PLC from a memory card. Operation of four inputs/outputs via Basic Interpreter.
- 
 - cab WLAN card 802.11 b/g.

Stand-alone operation

Printing without PC

Stand-alone operation is the ability to print labels even if the printer is not connected to the host system. The label layout is designed with the label software cablabel S3 or direct programming via PC. Label formats, fonts, font-, text- and graphics data as well as data base contents are saved on the USB stick or read on the internal data memory IFFS. Only variable data to be printed is sent to the printer via keyboard or scanner.



Technical data

■ Standard □ Option

Label printer		MACH4		
Print head				
Printing method	Thermal transfer	■	■	■
	Thermal direct	■	■	–
Print resolution	dpi	203	300	600
Print width	mm	104	105,6	105,6
Print speed up to	mm/s	200	200	100
Material¹⁾				
Labels, continuous rolls or fan-folded		Paper, cardboard, textile, plastics such as PET, PE, PP, PVC, PU, acrylate, PI		
Thickness mm / Weight g/m ²		0,055–0,8/60–200		
Width	Labels	mm	6 - 116	
	Liner or continuous rolls	mm	25 - 120 / from 0,4 mm material thickness 5 - 120	
Label height		mm	5 - 4500	
	when dispensing from	mm	20	
Material height	when cutting from	mm	12	
		mm	205	
Media roll	total diameter	mm	38–100	
	core diameter	mm	outside or inside	
	winding direction			
Ribbon				
Ink			outside or inside	
Roll diameter up to	mm		72	
Core diameter	mm		25	
Ribbon length up to	m		360	
Width ²⁾ up to	mm		114	
Dimensions				
Height x Depth x Width	mm		312 x 435 x 240	
Weight	kg		6	
Label sensor				
Gap sensor			For label edge or punching mark and end of material centered or shifted 10 mm to the left	
Position				
Reflective sensor from below ³⁾			For label edge, punching or centered printing mark adjustable 56 mm to the left /10 mm to the right	
Position				
Electronics				
Processor High Speed 32 Bit Coldfire / clock rate MHz			266	
RAM MB			64	
Memory IFFS MB Flash			8	
Slot for CompactFlash Type I memory card			■	
Slot für wireless LAN card			■	
Battery buffer for real-time clock, printout of time and date, data storage on shut-down			■	
Warning signal acoustic signal in case of error			■	
Interfaces				
Centronics bidirectional acc. IEEE 1284			□	
RS232 C 1.200 up to 230.400 Baud / 8 Bit			■	
USB 2.0 full speed Device for PC connection			■	
Ethernet 10/100 Base T, LPD, RawIP-Printing, ftp-Printing, DHCP, HTTP, FTP, SMTP, SNMP, TIME, Zeroconf, mDNS, SOAP			■	
RS422, RS485 1.200 up to 230.400 Baud / 8 Bit			□	
WLAN card 802.11b/g WEP / WPA PSK (TKIP)			□	
2 x USB Host for external operation panel, keyboard, scanner, service key, USB flash drive			■	
Operating data				
Power supply			100 - 240 VAC 50/60 Hz, PFC	
Energy consumption			max. 300 W	
Temperature/Humidity	Operation:		+ 5 - 40°C / 10 - 85% not condensing	
	Stock:		+ 0 - 60°C / 20 - 80% not condensing	
	Transport:		– 25 - 60°C / 20 - 80% not condensing	
Approvals			CE, FCC class A, CB, CCC, UL	

¹⁾ Limitations may apply to small labels, thin materials or strong adhesives. Critical materials or applications must be tested and approved.

²⁾ The ribbon should be roughly the same width as the label in order to avoid folding.

³⁾ Reflective sensor with RFID not available.

Operation panel	
Buttons/LED display	Pause, Feed, Cancel, Menu, Enter, 4 x Cursor
LCD graphic display	Width 60, Height 40 mm, Text 4 lines, approx. 20 characters per line
Settings	
Digital or analog clock	Time
System settings	Date
Print parameters	Interfaces
25 language settings	Security
On the Display	
Data reception	Clock
WLAN field intensity	Date sheet
Ethernet status	abc Debug
Used memory	Input buffer
Temperature printhead	Remaining ribbon
Access to memory card	
Monitoring	
Stop printing if	End of ribbon End of labels Printhead open Final position not reached
Test routines	
System diagnosis	When switched on, including printhead testing
Short status, status print	Font list, device list, WLAN Status, label profile, test grid, monitor mode, PPP status
Status reports	Status printout with information about settings, e.g. print length counter, runtime counter, etc. Request of status via software command. Status messages on the display, e.g. network error - no link, barcode error, etc.
Fonts	
Font types	5 Bitmap fonts, incl. OCR-A, OCR-B and 3 Vector Fonts Swiss 721, Swiss 721 Bold and Monospace 821 internally available, loadable TrueType fonts. Thai and Chinese (simplified Chinese) available as option.
Character sets	Windows 1250 up to 1257, DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869, EBC DIC 500, ISO 8859-1 up to -10 and -13 up to -16, WinOEM 720, UTF-8, Macintosh Roman, DEC MCS, K018-R. All West and East European Latin, Cyrillic, Greek, Hebrew and Arabic characters are supported. Thai and Chinese available as option.
Bitmap fonts	Size of width and height 1 – 3 mm Zoom 2 – 10 Orientation 0°, 90°, 180°, 270°
Vector- / TrueType fonts	Size of width and height 0,9 – 128 mm Variable zoom, Orientation 360° in steps of 1°
Font formats	Bold, Italic, underlined, outline, inverse, depending on character fonts
Font width	Variable

Graphics			
Graphic elements	Line, arrow, box, circle, ellipse, filled and filled with fading		
Graphic formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG		
Barcodes			
Linear barcodes	Code 39, Code 93 Code 39 Full ASCII Code 128 A, B, C EAN 8, 13 EAN / UCC 128 EAN / UPC Appendix 2 EAN / UPC Appendix 5 FIM HIBC	Interleaved 2 / 5 Ident- and lead code of Deutsche Post AG Codabar JAN 8, 13 MSI Plessey Postnet RSS 14 UPC A, E, E0	
2D codes	Aztec, Codablock F, Data Matrix, PDF 417, Micro PDF 417, UPS Maxicode, QR-Code, RSS 14 truncated, limited, stacked and stacked omnidirectional, EAN-Datamatrix, GS1 Data Bar All codes are variable in height, module width and ratio. Orientation 0°, 90°, 180°, 270°. Optionally with check digit, printed characters and start/stop code depending on type of code.		
Software			
Programming	J-Script direct programming abc-Basic Compiler Database Connector SAP Replace method	■ ■ ■ ■	
System diagnosis/administration	Printer monitoring with Intra- and Internet with web interface Network Manager	■ ■	
Label software	cablabel® S3 Lite cablabel® S3 Viewer cablabel® S3 Pro	■ ■ □	
Windows driver 32 / 64 bit certified for	Windows XP Windows Vista Windows 7 Windows 8 Windows 8.1	Server 2003 Server 2008 Server 2008 R2 Server 2012 Server 2012 R2	■
Mac- driver	OS X printer driver from version 10.6	■	
Linux driver	32/64 Bit from CUPS 1.2	■	
Stand-alone-operation		■	

Accessories

Accessories		MACH4
2.1	External rewinder ER4	<input type="checkbox"/>
2.2	Media hub	<input type="checkbox"/>
2.3	Ribbon holder	<input type="checkbox"/>
2.4	Memory card	<input type="checkbox"/>
2.5	Standard keyboard	<input type="checkbox"/>
Interfaces		
3.1	Interface Centronics	<input type="checkbox"/>
3.2	Interface RS422/RS485	<input type="checkbox"/>
3.3	Label selection box	<input type="checkbox"/>
3.4	WLAN card 802.11 b/g	<input type="checkbox"/>
Connecting cables		
4.1	Connecting cable RS232 C 9/9 pin, length 3 m	<input type="checkbox"/>
4.2	Patch cable CAT 5e, length 3 m grey	<input type="checkbox"/>
Software		
11.4	Database Connector	■
11.6	Network Manager	■
11.9	cablabel® S3	■
	Lite	■
	Pro	<input type="checkbox"/>
11.10	Programming manual	<input type="checkbox"/>

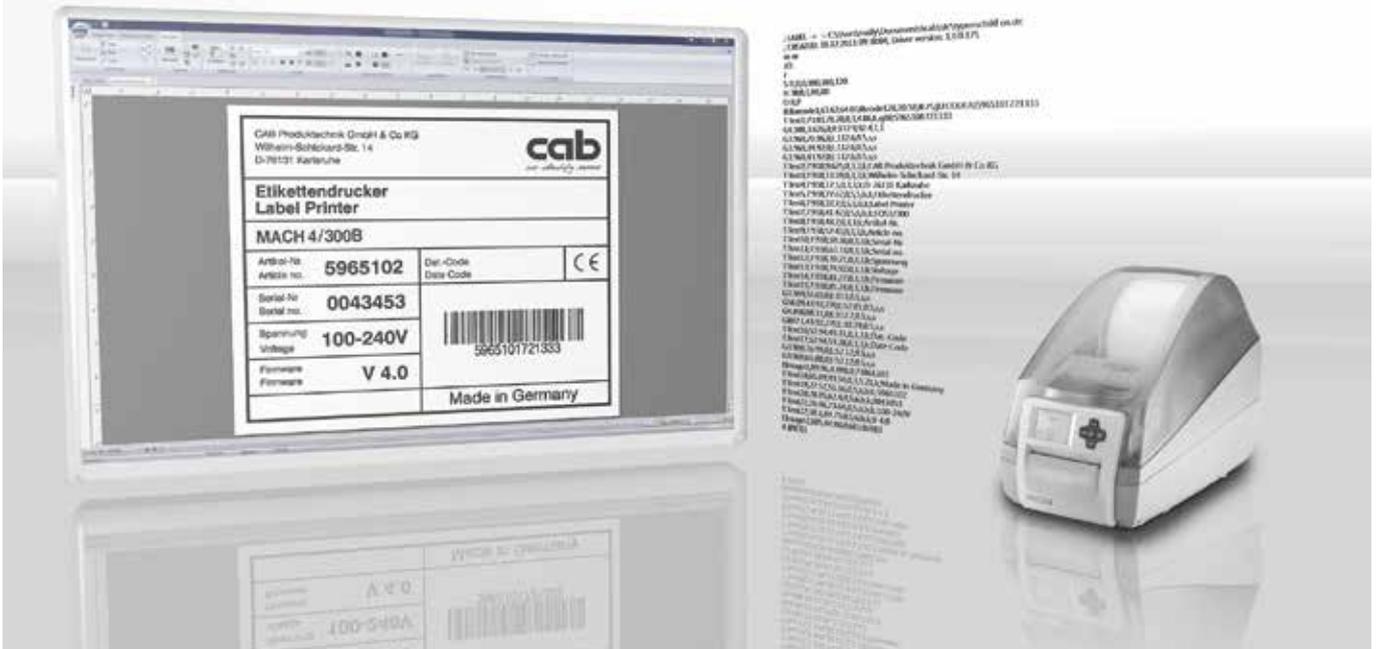
Accessories	Product
2.1 	External rewinder ER4 1 Roll diameter mm: max. 210 2 Operating voltage: 100 - 240 V~ 3 Core diameter mm: 40 / 76
2.2 	Media hub Labels can be provided in additional holders for quick replacement.
2.3 	Ribbon holder Ribbons can be provided in additional holders for quick replacement.
2.4 	Memory card CompactFlash Type I Label formats, fonts, texts and graphics can be saved. Accessible from the printer or from the PC.
2.5 	Standard keyboard Connection: USB No. of keys: 115
Interfaces	Product
3.1 	Interface Centronics bi-directional acc. to IEEE 1284
3.2 	Interface RS422/RS485 1.200 up to 230.00 Baud/8 Bit
3.3 	Label selection box - I/O-Box From a higher-level control, like a PLC, up to 16 different labels can be selected from the memory card.
3.4 	WLAN card 802.11 b/g
Connecting cables	Product
4.1 	Connecting cable RS232 C 9 / 9 pin, length 3 m
4.2 	Patch cable CAT 5e 3 m grey

Operation and compliance with CE standards is only warranted by using materials provided or recommended by cab.

Label software cablabel® S3

11.9

NEW



In cablabel® S3 cab concentrates label design, print control and monitoring of all cab marking systems and synchronizes the development of devices and software.

Highlights

cablabel® S3 opens full potential of cab devices like no other available software does: the software provides JScript instruction set to the full extend. The Pro product imports already existing JScript files, so you can switch over to the new software without wasting time. With the new layer technology the user designs a label with the data for all established devices and resolutions. The intelligent print control evaluates onto which device and with which resolution the label has to be printed and sends adequate data. This reduces possible sources of error.

Simultaneously cablabel® S3 maximizes the integration database connections via Database Connector. After designing, the software provides all files that are stored within the printer for data base connections. And, if you want your marking system to print independently from a host system in the stand alone mode, cablabel® S3 supports this in the same way. Additionally, the software creates interfaces that are easy to handle for the connection to SAP or other devices like SPC, scales or bar code tester.

Products

Companies structure label printing differently. For example, creation and production are executed by different employees. To adopt the software package to your company cab offers different products.

cablabel® S3 Lite is delivered free of costs with every cab printer and allows you to create and print labels.

With cost-saving cablabel® S3 Pro you create label designs for professional technical solutions.

cablabel® S3 Viewer shows the preview of a label in the Windows Explorer and is delivered free of costs with every cab-label® S3. The Viewer may support you for example in approval processes or supplier requirements.

cablabel® S3 Print is provided for users in production or warehousing. The user interface is simplified and makes only those functions available which are required for label printing.

Other products like cablabel® S3 Pro Laser, Print Laser und Print Server are in preparation.

Integration



No printer is isolated – in a productive environment it is connected to other equipment or networks for control and monitoring. cab offers various possibilities to integrate the printer into your environment.

Control

Every cab printer can be directly coded with the simple programming language *JScript* and an extensive instruction set. The label software *cablabel*® S3 supports optimally *JScript*, but a *JScript* program may also be created with any text editor.

As an integrated element of the firmware, the *abc Basic compiler* enables the printer to process data via BASIC programming before it is sent for print editing. That way, you replace external printer languages or integrate data from other systems, e.g. balance or a PLC.

11.4 In the stand-alone mode with additional network connection, the *Database Connector* enables printers to access data directly from a central ODBC-, OLEDB compatible database and to print it as a label.

In cooperation with SAP* cab developed the so-called *replace method* to control cab printers quickly and easily from SAPScript using SAP R/3. Using the replace method the host computer only sends the *JScript* variable, respectively changed data to the printer. As a Silver Level partner in SAP's Printer Vendor Program, cab has access to the SAP development area for optimum printer support in SAP environments.

*SAP and R/3 are registered trademarks of SAP AG.

11.10 The *Programmer's guide* explains and describes commands for different printer models via direct programming with *JScript* and *abc* and additionally the connection of the printer to databases via *Database Connector*.

For the printer control via PC accredited drivers are available for established Windows operating systems and additionally CUPS-based drivers for Mac OS X and Linux. The drivers ensure optimal stability on your operating system.

Monitoring

Using standard programs such as the web browser or FTP clients, the integrated HTTP and FTP server enables print monitoring, configuration, firmware updates and memory card administration. Status, warning and error messages are sent to administrators or users as e-mails or SNMP datagrams via SNMP and SMTP clients. A time server is used to synchronize time and date.

11.6 The cab Network Manager enables the user to control a number of printers across a network simultaneously. It supports monitoring, configuration, firmware updates, memory card administration, file synchronization and PIN administration centrally.

Delivery program

	Part no.	Hardware	dpi
1.1		5541082	With tear-off plate Label printer MACH4 / 200B
	5541083	Label printer MACH4 / 300B	
	5541086	Label printer MACH4 / 600B	
1.2		5541092	With tear-off plate and dispensing function Label printer MACH4 / 200P
	5541093	Label printer MACH4 / 300P	
	5541096	Label printer MACH4 / 600P	
1.3		5541102	With cutter Label printer MACH4 / 200C
	5541103	Label printer MACH4 / 300C	
	5541106	Label printer MACH4 / 600C	
		5541xxx.102	Label printer MACH4 / xxxx with RFID read/write unit 13.56 MHz
Scope of delivery			
<p>Label printer, Power cable type E+F, length 1.8 m, Connecting cable USB, length 1.8 m, Operating manual de/en</p> <p>DVD: Quick Start guide in 17 languages, Operating manual de/en/fr, Configuration manual de/en/fr, Service manual de/en, Spare parts list de/en, Programming manual en, Windows printer driver 32/64 bit in 19 languages for Windows XP Server 2003 Windows Vista Server 2008 Windows 7 Server 2008 R2 Windows 8 Server 2012 Windows 8.1 Server 2012 R2 Label software cablabel® S3 Lite and Viewer Mac OS X driver de/en/fr, Linux driver de/en/fr</p>			
Part no.		Spare parts	
	5541074.001	Printhead 4 / 203	
	5541073.001	Printhead 4 / 300	
	5541077.001	Printhead 4 / 600	
	5540896.001	Print roller DR4	
Part no.		Accessories	
2.1		5540750	External rewinder ER4 / 210
2.2		5540867.001	Media hub

	Part no.	Accessories
2.3	 5540866.001	Ribbon holder
2.4	 5561043	Memory card CompactFlash Type I
2.5	 on request	Standard PC keyboard USB German version
Part no.		Interfaces
3.1	 5954200	Centronics interface
3.2	 5954201	RS422/RS485 interface
3.3	 5954191	Label selection – I/O box
3.4	 5561041	WLAN card 802.11 b/g
Part no.		Connecting cable
4.1	 5550818	Cable RS232 C 9/9 pin, length 3 m
4.2	 5918008	Patch cable KAT 5e, 3 m gray
Part no.		Software
11.9	 5588000	Label software cablabel® S3 Lite
	5588001	cablabel® S3 Pro 1 WS
	5588100	cablabel® S3 Pro 5 WS
	5588101	cablabel® S3 Pro 10 WS
	5588150	cablabel® S3 Pro 1 additional licence
	5588151	cablabel® S3 Pro 4 additional licences
	5588152	cablabel® S3 Pro 9 additional licences
	5588002	cablabel® S3 Print 1 WS
	5588105	cablabel® S3 Print 5 WS
	5588106	cablabel® S3 Print 10 WS
	5588155	cablabel® S3 Print 1 additional licence
5588156	cablabel® S3 Print 4 additional licences	
5588157	cablabel® S3 Print 9 additional licences	
	from the 4th quarter 2015	cablabel® S3 Print Server
11.10	9008486	Programming manual english, printed copy

cab delivery program

Label printer EOS1

The compact one for label rolls up to 155 mm diameter



Label printer EOS4

The cost-effective one for label rolls up to 210 mm diameter



Label printer EOS mobile

Both EOS sizes with battery pack for mobile print



Label printers A+ series

The universal ones



Label printer A4+M

With centered material positioning



Label printer A4+T

With centered material positioning also for textile materials



Label printer XD4T

Double-sided printing



Label printers XC series

Two-color printing



Label dispenser HS

Precise and easy horizontal dispensing up to 180 mm width



Label dispenser VS

Precise and easy vertical dispensing up to 180 mm width



Print and apply system Hermes+

For automation



Print modules PX series

For integration into automatic labeling systems



Consumables

Precise printing with cab labels and ribbons



Label software cablabel S3

Standard and optional



Laser marking system FL+ series

Precise and fast



Laser safety housing

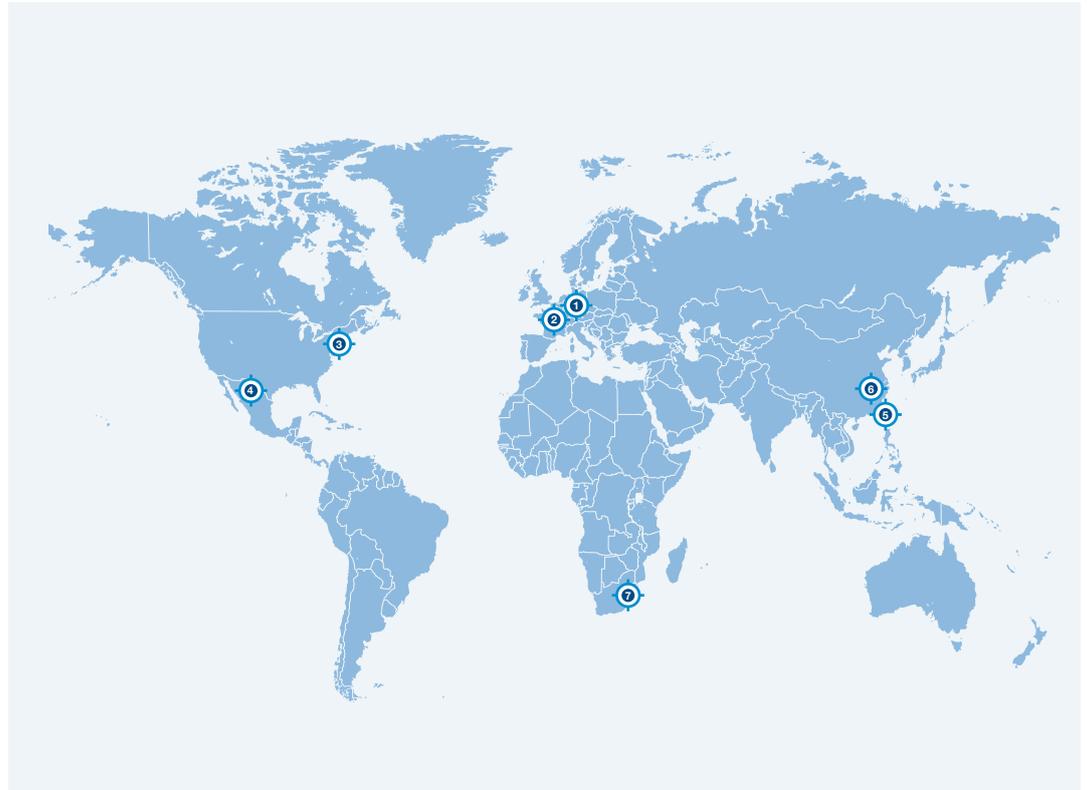
The industrial solution



 Headquarter and fabrication in Germany

 to  International subsidiaries

There are furthermore 820 distribution partners in more than 80 countries.



Germany

cab Produkttechnik GmbH & Co KG
Wilhelm-Schickard-Str. 14
76131 Karlsruhe
phone +49 721 6626 0
fax +49 721 6626 129
info@cab.de
www.cab.de

cab Produkttechnik Sömmerda GmbH
Am Unterwege 18-20
99610 Sömmerda
phone +49 3634 6860 0
fax +49 3634 6860 129
info@cab.de
www.cab.de

France

cab Technologies S.à.r.l.
2a Rue de la Moder
Z.A. Nord du Val de Moder
67350 Niedermodern
phone +33 388 722501
fax +33 388 722502
info.fr@cab.de
www.cab.de/fr

USA

cab Technology, Inc.
87 Progress Avenue Unit 1
Tyngsboro, MA 01879
phone +1 978 649 0293
fax +1 978 649 0294
info.us@cab.de
www.cab.de/us

Latin America

Alejandro Balmaceda
Hacienda Jurica Pte 1615
Colonial de Valle
32553 Ciudad Juárez
phone +52 656 682 3745
fax +52 656 682 4301
a.balmaceda@cab.de
www.cab.de/es

South Africa

cab Technology (Pty) Ltd.
14 Republic Street
Bordeaux
2125 Randburg
phone +27 11 886 3580
fax +27 11 789 3913
info.za@cab.de
www.cab.de/za

Taiwan

cab Technology Co., Ltd.
希愛比科技股份有限公司
16F-1, No. 700, Jhong Jheng Rd
Junghe, Taipei 23552
phone +886 (02) 8227 3966
fax +886 (02) 8227 3566
info.asia@cab.de
www.cab.de/tw

China

cab (Shanghai) Trading Co., Ltd
铠博(上海)贸易有限公司
A507, No. 268, Tong Xie Rd
Shanghai 200335
phone +86 (021) 6236 3161
fax +86 (021) 6236 3162
info.cn@cab.de
www.cab.de/cn