Edition 3.3

Label printer *eOS* series

Made in Germany

Overview types label printer EOS

One concept - two sizes

The new EOS series combines all the functions of a solid label printer with the highest ease of operation.

eos1 the compact for small work space. For label rolls up to 155 mm diameter.

1.1	Label printer	EOS1	
	Print resolution dpi	203	300
	Print width up to mm	108	105.7
	Print speed up to mm/s	125	125
	Label roll Ø up to mm	155	155
	Power supply	100 - 240 VAC 50/60 Hz	

eos4 for label rolls up to 210 mm diameter. Further technical data are identical with EOS1.

1.2	Label printer	EOS4	
	Print resolution dpi	203	300
	Print width up to mm	108	105.7
	Print speed up to mm/s	125	125
	Label roll Ø up to mm	210	210
	Power supply	100 - 240 VAC 50/60 Hz	

Mobile printing

In production, warehousing or agriculture, wherever labels are required and and there is no access to a power source. An input voltage of 24 V enables the printer to be power supplied with any powerful rechargeable battery.
The EOS battery pack 2 allows the printing of more than 500 labels per charge for a label size of 100 x 68 mm at colour coverage of 15%. With battery pack 4 the capacity is doubled.

eos1 mobile with 24 V power supply. For label rolls up to 155 mm diameter.

1.3	Label printer	EOS1 mobile
	Print resolution dpi	300*
	Print width up to mm	105.7
	Print speed up to mm/s	125
	Label roll Ø up to mm	155
	Power supply	16.5 - 25 VDC

*203 dpi on request

eos4 mobile for label rolls up to 210 mm diameter. All further technical data are identical with EOS1 mobile.

1.4	Label printer	EOS4 mobile
	Print resolution dpi	300*
	Print width up to mm	105.7
	Print speed up to mm/s	125
	Label roll Ø up to mm	210
	Power supply	16.5 - 25 VDC

*203 dpi on request

Common details

1 Touchscreen – LCD display
Clearly designed for highest ease of use.

2 USB interfaces
2 USB interfaces on the operation panel, 1 USB interface on the back for memory stick, service key, WLAN, bluetooth, keyboard and scanner.

3 Roll holder
The label roll is inserted and centered automatically when Margin Stop is pressed on and locked.

4 Ribbon retainer
The stop is adjustable to the foil width.

5 Gap or reflective sensor
The sensor position is adjustable by the red knob via a spindle. The set position is displayed with a LED.

6 Label guide
The guides are adjusted to the material width with a knob.

7 Printhead 203 or 300 dpi
The printhead can be easily removed by hand for cleaning or replacement.

8 Drive roller
It can be removed for cleaning or replacement without tools.
As small labels may cause friction between printhead and print roller it is recommended to use in this case narrow print rollers with a width of 25, respectively 50 mm ensuring a better print image and extending the life of the printhead.

Technical data

■ Standard ☐ Option

			1.1		1.2		1.3	1.4
Label printer			**EOS1**		**EOS4**		**EOS1 mobile**	**EOS4 mobile**
Print head								
Print method			Thermal transfer / Thermal direct					
Print resolution		dpi	203	300	203	300	300	300
Print width up to		mm	108	105.7	108	105.7	105.7	105.7
Print speed		mm/s	30, 40, 50, 75, 100, 125					
Material[1]								
Labels – continuous material			Paper, cardboard, textile, plastics such as PET, PE, PP, PVC, PU, acrylate, PI					
	on rolls		■		■		■	■
	fanfolded		☐		☐		–	–
Thickness mm / Weight g/m²			0.055 – 0.7 / 60 – 240					
Width	Labels	mm	single lane: 10 – 116, multi lane: 5 – 116					
	Liner	mm	25 – 120					
	continuous material	mm	5 – 120					
	flat pressed tubes	mm	5 - 85					
Label height	without back-feed	mm	5 - 1000					
Media roll	Outside diameter up to	mm	152		203		152	203
	Core diameter	mm	38 – 76					
	Winding		Outside or inside, when cutting preferably outside					
Ribbon								
Ink			Outside or inside					
Roll diameter up to		mm	72					
Core diameter		mm	25.4					
Ribbon length up to		m	360					
Width		mm	50 – 114					
Dimensions printer								
Height x Depth x Width		mm	189 x 322 x 253		245 x 412 x 264		189 x 322 x 253	245 x 412 x 264
Weight		kg	4		5		4	5
Label sensor								
Gap sensor			For leading edge or punching marks and end of material					
Reflective sensor from the bottom			For print marks					
Distance from the center to the left		mm	0 - 58					
Electronics								
Processor High Speed 32 Bit clock rate MHz			400					
RAM MB			64					
Memory IFFS MB Flash			16					
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								
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			■					
Periphery connection			■					
2 x USB Host on operation panel, connection up to 100 mA for memory stick, service key, WLAN or bluetooth			■					
1 x USB Host on the back, connection up to 500 mA for keyboard, scanner, WLAN or bluetooth			■					
Operation panel								
Display			Touchscreen 160 x 255 pixel with back light					
Screen diagonals		mm	96					
Operating data								
Power supply			100 – 240 VAC, 50/60 Hz				16,5 – 25 VDC	
Power consumption			Energy saving mode 1,8 W/typical 45 W/max. 100 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] All materials are approximate values. Small labels, very thin, narrow, thick or stiff materials as well as labels with strong adhesives need to be tested first.

■ Standard ☐ Option

Settings		
	Digital or analog clock System settings Print parameters 25 language settings	Time Date Interfaces Security
On the display		
	Data reception WLAN field strength Ethernet state Temperature printhead Cutter	Clock Date sheet Bluetooth Ribbon capacity
Monitoring		
Stop printing if	End of ribbon End of labels Printhead open Final position of cutter not reached cutter pivoted	
Test routines		
System diagnosis	When switched on incl. printhead testing	
Short status, status print	Font list, device list, WLAN status, profile of label, monitor mode, PPP status	
Status reports	Printout informing about settings and print length counter, runtime counter. Status request via software commands. Status messages on the display such as 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 available internally, loadable TrueType fonts. Thai and Chinese (simplified Chinese)	
Character sets	Windows 1250 up to 1257, DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869, EBC DIC 500, ISO 8859-1 to -10 and -13 up to -16, WinOEM 720, UTF-8, Macintosh Roman, DEC MCS, K0I8-R. All West and East European Latin, Cyrillic, Greek, Hebrew, Arabic, Thai and Simplified Chinese characters are supported.	
Bitmap fonts	Size of width and height 1–3 mm, Zoom 2–10 Orientation 0°, 90°, 180°, 270°	
TrueType fonts	Size of width and height 0.9–128 mm, continuous zoom, orientation 360° in steps of 1°	
Font formats	Bold, italic, underlined, outline, negative, 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 UPC A, E, E0	Interleaved 2/5 Ident- and lead code of Deutsche Post AG Codabar JAN 8, 13 MSI Plessey Postnet RSS 14
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 variable in height, module width and ratio. Orientation 0°, 90°, 180°, 270°. Optionally with check digit, printed characters and start/stop code, depending on code type.	

Software		
Programming	J-Script direct programming Direct programming with ZPL abc Basic Compiler Database Connector SAP Replace method	■ ■ ■ ■ ■
Monitoring/ administration	Printer monitoring with Intra- and Internet with web interface	■
Label software	cablabel® S3 Lite cablabel® S3 Viewer cablabel® S3 Pro	■ ■ ☐
Windows driver 32/64 bit certified for	Windows XP Server 2003 Windows Vista Server 2008 Windows 7 Server 2008 R2 Windows 8 Server 2012 Windows 8.1 Server 2012 R2	■
Mac driver	OS X printer driver starting with Version 10.6	■
Linux driver	CUPS-based starting with Version 1.2	■
Stand alone mode		■

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.

Accessories – overview

			1.1	1.2	1.3	1.4
	Extras		**EOS1**	**EOS4**	**EOS1 mobile**	**EOS4 mobile**
2.1	Print roller DR4-25		☐	☐	☐	☐
	Print roller DR4-50		☐	☐	☐	☐
2.2	Standard keyboard German		☐	☐	☐	☐
2.3	USB Memory stick		☐	☐	☐	☐
2.4	WLAN USB stick		☐	☐	☐	☐
2.5	Nano Bluetooth USB adapter		☐	☐	☐	☐
2.6	Label selection – I/O box		☐	☐	☐	☐
2.7	Patch cable CAT5e		☐	☐	☐	☐
2.8	Cutter		☐	☐	☐	☐
2.9	External unwinder		☐	☐	☐*	☐*
2.10	Brake for fanfold labels		☐	☐	☐*	☐*
2.11	Battery pack		—	—	☐	☐
	Software					
11.4	Database Connector		■	■	■	■
11.7	cablabel® S3	Lite	■	■	■	■
		Pro	☐	☐	☐	☐
11.10	Programming manual		☐	☐	☐	☐

■ Standard ☐ Option * not with battery pack

Extras	Product
2.1 	**Print roller DR4-25** For small and thin materials up to a width of 25 mm.
	**Print roller DR4-50** For very thin materials from a width of 20 up to 50 mm.
2.2 	**Standard keyboard** for data input in stand-alone operation Connection: USB, no. of keys: 115, German keyboard
2.3 	**USB Memory stick** for data input
2.4 	**WLAN USB stick** for data input / 54 Mbps
2.5 	**Nano Bluetooth USB adapter** V2.1 for data input
2.6 	**Label selection – I/O box** From a higher-level control, like a PLC, up to 16 different labels can be selected from the memory card. The I/O box via abc programming enables to realize easy PLC programming with four in- and outputs each.
2.7 	**Patch cable CAT5e** 3 m, grey

Accessories

2.8

Cutter

The cutter is used to cut all printable materials. An additional perforation cutter, e.g. for continuous materials like heat shrink tubes or textile ribbons is available on demand.

Cutter	
Cutting height from mm	10
Cuts/min. up to	200
Winding	preferably outside
Monitoring	cutter pivoted, final position not reached

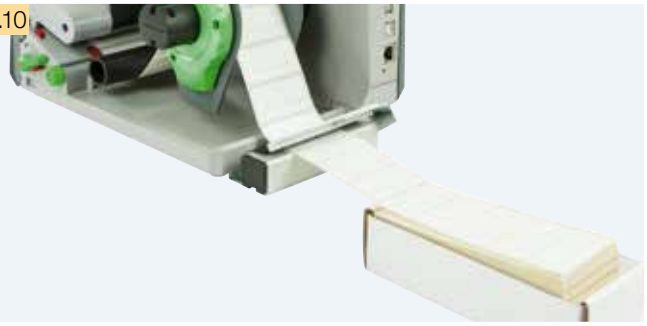
2.9

External unwinder

When feeding, the material rolls are automatically centre-aligned. The external unwinder can not be installed with EOS mobile.

External unwinder	
Roll diameter up to	390 mm
Core diameter starting with	38 mm
Winding	outside or inside
Roll weight max.	4 kg

2.10



Brake for fanfold labels

The brake is used to tightly guide and precisely print fanfold material
The brake for fanfold labels can not be installed with EOS mobile.

2.11

Battery Pack with integrated charger

The battery pack is installed underneath the EOS mobile. Data input is made in the stand-alone operation. Data transfer is made via WLAN or Bluetooth.

For EOS mobile	Battery Pack 2	Battery Pack 4
Nominal voltage	18 V	
Capacity / power	2,1 Ah / 36 Wh	4,2 Ah / 72 Wh
Print capacity	for labels 110 x 68 mm / 15% colour coverage	
continuously	up to 5.000 labels	up to 10.000 labels
1 label per minute	up to 500 labels/8 h	up to 1.000 labels/16 h
Charging time max.	2 h	4 h
Charging voltage	100 -240 VAC 50/60 Hz	

Label software cablabel® S3

11.7

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 cablabel® 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. Alternatively, direct programming with ZPL is possible. 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. scale 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.

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.

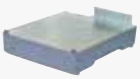
For the printer control via PC accredited drivers are available for established Windows operating systems and additionally CUPS-based drivers for Mac OS X and Linux. The drivers ensure optimal stability on your operating system.

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.

Delivery program

		Part no.	Hardware dpi
1.1		**5965101** **5965102**	**EOS1** with tear-off edge Label printer EOS1/200 Label printer EOS1/300
1.2		**5965103** **5965104**	**EOS4** with tear-off edge Label printer EOS4/200 Label printer EOS4/300
1.3		**5965102.600**	**EOS1 mobile** with tear-off edge Label printer EOS1 mobile/300
1.4		**5965104.600**	**EOS4 mobile** with tear-off edge Label printer EOS4 mobile/300
		Scope of delivery	
		Label printer, Power cable type E+F, length 1.8 m, Connecting cable USB, length 1.8 m, Operating manual de/en **DVD:** Operating manual 22 languages, Configuration manual de/en/fr, Service manual / Spare parts 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	

For videos, upcoming trade shows, documentation and software please refer to www.cab.de/en/eos

		Part no.	Spare parts
		**5966096.001** **5965580.001**	Printhead 203 Printhead 300
		**5965488.001**	Print roller DR4
		Part no.	**Accessories**
2.1		**5966218.001**	Print roller DR4-25
		**5966219.001**	Print roller DR4-50
2.2		**5901626**	Standard keyboard USB German
2.3		**5906179**	USB Memory stick
2.4		**5906225**	WLAN USB stick 54 Mbps
2.5		**5906226**	Nano Bluetooth USB Adapter V2.1
2.6		**5954191**	Label selection – I/O box
2.7		**5918008**	Patch cable CAT 5e, 3 m, grey
2.8		**5965520** **5966730**	Cutter EOS1 Cutter EOS4
2.9		**5965586**	External unwinder EOS
2.10		**5953753**	Brake for fanfold labels EOS
2.11		**5542640** **5542660** **5542605** **5542615**	Battery pack 2 EOS1 Battery pack 2 EOS4 Battery pack 4 EOS1 Battery pack 4 EOS4
		Part no.	**Software**
11.9		**5588000** **5588001** **5588100** **5588101** **5588150** **5588151** **5588152** **5588002** **5588105** **5588106** **5588155** **5588156** **5588157** from the 4th quarter 2015 In preparation	Label software cablabel® S3 Lite cablabel® S3 Pro 1 WS cablabel® S3 Pro 5 WS cablabel® S3 Pro 10 WS cablabel® S3 Pro 1 add. licence cablabel® S3 Pro 4 add. licences cablabel® S3 Pro 9 add. licences cablabel® S3 Print 1 WS cablabel® S3 Print 5 WS cablabel® S3 Print 10 WS cablabel® S3 Print 1 add. licence cablabel® S3 Print 4 add. licences cablabel® S3 Print 9 add. licences cablabel® S3 Print Server cablabel® S3 Pro Laser cablabel® S3 Print Laser
11.10		**9008486**	Programming manual English, as printed copy

cab product range at a glance

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 dispensers HS/VS
Precise horizontal or vertical dispensing up to 180 mm width

Print & apply system Hermes+
For automation

Print & apply system Hermes C
For two-color printing and applying

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

① Headquarter and fabrication in Germany

② to ⑦ International subsidiaries

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

Europe

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

America

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

Asia

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

cab (Shanghai) Trading Co., Ltd.
铠博(上海)贸易有限公司
Room 39, 10F, 8 Lin He Zhong Rd
Tian He District, Guangzhou 510610
phone +86 (020) 2831 7358
info.cn@cab.de
www.cab.de/cn

Africa

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