

Status: 12/2020



Products need labeling
Tube labeling system

AXON 1
Made in Germany

Reliable tube labeling

AXON 1 is in preparation for the first quarter of 2021.



In order to evaluate analyses reliably and quickly, tubes must be labeled uniquely.

In practice, 2D codes or linear barcodes are printed on self-adhesive labels and the labels are applied on the tubes.

Print resolutions of 300 or 600 dpi, a sharp-edge print image and high contrast enable even tiny 2D codes to be verified. Thermal direct and thermal transfer printing are possible.

AXON 1 suits for tube labeling one by one by hand or automatically in a sample processing system.

Tubes of diameters 10 to 26 mm (on request up to 35 mm) can be processed, capped or uncapped. Printing and labeling take less than two seconds.

Self-explanatory symbols enable the device to be operated intuitively. Label rolls and the ribbon are easy to remove. If it comes to cleaning or in cases of wear, print rollers and transport rollers can be replaced easily by the operator with the help of a tool attached.

AXON 1 may be integrated in a Laboratory Information Management System (LIMS). Data transfer from a PC is possible via interfaces such as RS232, USB, Ethernet, or via WLAN.

In stand-alone operation, when no PC is connected, variable data are set with a keyboard or a scanner.

Power is supplied by 110 to 240 VAC voltage or 18 to 60 VDC. 24 VDC voltage may be possible on request.

Details on tube labeling



For further information see
www.cab.de/en/squix



1 Ribbon holder

Three-part tightening axles enable the material to be replaced quickly and easily.

2 Transport rollers

They apply the labels on the tubes.

3 Wipe-down rollers

During labeling, they press the tubes to the transport rollers.

4 Operation panel

Operating the device is intuitive and simple with the help of self-explanatory symbols.

5 Internal rewinder

With the help of the rewinder, liner material is wound. Three-part tightening axles enable the material to be replaced quickly and easily.

6 Label pre-warning

In case a roll has reached a set diameter, a pre-warning is issued.

7 Coated print rollers

synthetic rubber for highly accurate print images

8 Peel-off function

Labels are guided over a deflection roller to be applied reliably on the tubes.

9 Scanner to detect linear barcodes and 2D codes

Verification and contents are checked by a camera during labeling.

10 Rugged metal chassis

made of cast aluminum; basis to assemble all units

Technical data

Tube labeling system		Typ	AXON 1	
Material guide			left-aligned	
Printing method	Thermal transfer		●	●
	Thermal direct		●	–
Printable resolution	dpi		300	600
Print speed	mm/s		100	100
Print width	up to mm		56.9	54.1
Material				
Tubes	Diameter	mm	10 - 26	
		on request mm	35	
	Length	mm	32 - 130	
	Conicity (change of diameter)	up to %	0.8	
	Label distance from bottom	mm	8 - 38	
Labels	Material	Paper, plastics such as PP, PC		
	Width	mm	10 - 56	
	Height	from mm	12	
	Roll diameter	up to mm	205	
	Core diameter	mm	76	
		on request mm	38,1	
	Winding		outside	
Liner width	mm	25 - 60		
Ribbon	Ink side		outside or inside	
	Roll diameter	up to mm	80	
	Core diameter	mm	25	
	Variable length	up to m	450	
	Width	mm	25 - 60	
Printer sizes and weight				
Width x Height x Depth		mm	270 x 195 x 560	
Weight		approx. kg	12	
Interfaces				
RS232C		1,200 to 230,400 baud/8 bit		
USB 2.0		Hi-speed device to connect a PC		
Ethernet		10/100 Mbit/s		
1x USB host on the operation panel	for	Service Key, USB memory stick		
2x USB host on the back of the device	for	keyboard, barcode scanner, USB Bluetooth adapter, USB WLAN stick		
Digital I/O interface		8 inputs and outputs are an option		<input type="checkbox"/>
Operating data				
Power supply		100 - 240 VAC, 50/60 Hz, PFC		■
		18 - 60 VDC, 24 VDC on request		<input type="checkbox"/>
Power consumption		Standby < 10 W / typical 100 W		
Temperature / humidity	Operation	+5 - 40°C / 10 - 85 %, not condensing		
	Stock	0 - 60°C / 20 - 85 %, not condensing		
	Transport	-25 - 60°C / 20 - 85 %, not condensing		
Approvals		CE, FCC Class A, ICES-3		
	from end of April 2021	cULus, CB		
Operation panel				
Colored LCD touch display	Screen diagonal	"	4.3	
	Resolution W x H	px	272 x 480	
Monitoring				
Printer	Ribbon winding	Print head voltage		
	Ribbon pre-warning	Print head temperature		
	Ribbon ending	Print head open		
	Label pre-warning <input type="checkbox"/>	Pinch roller open		
	End of labels	Peripheral error		
	Tube diameter	Code Checker <input type="checkbox"/>		
Tube ready				
Fonts				
Font types internally provided	5 bitmap fonts:	7 vector fonts:		
	12 x 12 dots 16 x 16 dots 16 x 32 dots OCR-A OCR-B	AR Heiti Medium GB-Mono CG Triumvirate Condensed Bold Garuda HanWangHeiLight Monospace 821 Swiss 721 Swiss 721 Bold		
to be stored	TrueType fonts			

● typical ■ standard □ option

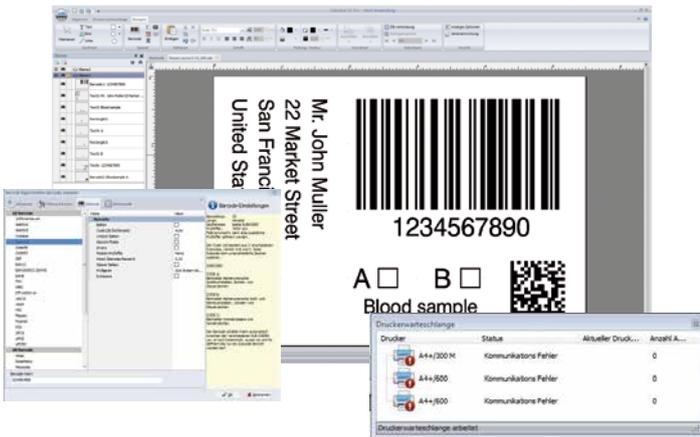
Fonts			
Character sets	Windows-1250 to -1257 DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869 EBDIC 500 ISO 8859-1 to -10 and -13 to -16 WinOEM 720 UTF-8 Macintosh Roman DEC MCS KOI8-R		
	Western European	Cyrillic	
	Eastern European	Greek	
	Chinese simplified	Latin	
	Chinese traditional	Hebrew	
	Thai	Arabic	
Bitmap fonts	Widths and heights 1 - 3 mm Zoom factors 2 to 10 Orientations 0°, 90°, 180°, 270°		
Vector / TrueType fonts	Widths and heights 0,9 - 128 mm Variable zoom Orientation 360° in steps of 1°		
Font styles	bold, italic, underlined, outline, inverse - depending from the font types		
Character spacing	variable or monospace		
Graphics			
Graphic elements	Lines, arrows, rectangles, circles, ellipses - filled or filled with fading		
Graphic formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG		
Barcodes			
Linear	Code 39, Code 93	Interleaved 2/5	
	Code 39 Full ASCII	Ident and routing code of Deutsche Post	
	Code 128 A, B, C	Codabar	
	EAN 8, 13	JAN 8, 13	
	EAN/UCC 128/GS1-128	MSI	
	EAN/UPC Appendix 2	Plessey	
	EAN/UPC Appendix 5	Postnet	
	FIM	RSS 14	
	HIBC	UPC A, E, E0	
2D and stacked	DataMatrix	Micro PDF 417	
	DataMatrix Rect. Extension	UPS MaxiCode	
	QR-Code	GS1 DataBar	
	Micro QR-Code	Aztec	
	GS1 QR-Code	Codablock F	
	GS1 DataMatrix	Dotcode	
	PDF 417	RSS 14 truncated, limited, stacked/omnidirectional	
	All codes are variable in terms of height, modular width and ratio; orientations 0°, 90°, 180°, 270° check digit, plain text printout and start / stop code are options depending from the type of code		
Software			
Label software	cablabel S3 Lite	cablabel S3 Viewer	■
	cablabel S3 Pro	cablabel S3 Print	<input type="checkbox"/>
Also running with	CODESOFT, NiceLabel, BarTender		
Stand-alone operation	<input type="checkbox"/>		
Windows printer drivers WHQL certified for	Windows Vista	Server 2008	■
	Windows 7	Server 2008 R2	
	Windows 8	Server 2012	
	Windows 8.1	Server 2012 R2	
	Windows 10	Server 2016 Server 2019	
Apple Mac OS X printer drivers	from version 10.6	■	
Linux printer drivers	from CUPS 1.2	■	
Programming	JScript printer language	abc Basic Compiler	■
	ZPL II (Datastream to be tested in advance)		<input type="checkbox"/>
Integration	SAP	Database Connector	■
Administration	Printer control	■	
	Configuration in Intranet and Internet	■	
	Network Manager (in preparation)	■	

cab uses free and Open Source Software in its products.
For information see www.cab.de/opensource

Label software

cablabel S3 - design, print, administrate

cablabel S3 opens up the full potential of cab devices. At first, a label must be defined. Its modular design enables cablabel S3 adapt to requirements step by step. Embedded plug-ins like the JScript Viewer support features such as native JScript programming. The designer user interface synchronizes in real time, so are JScripts codes. Integrating the Database Connector or a barcode verifier are options.



For further information see
www.cab.de/en/cablabe

Stand-alone printing

Deciding for this operating mode enables a printer to select and print labels even when there is no host system connected. Labels can be designed using software such as cablabel S3 or programmed in a text editor directly on a PC. Data such as label formats, texts, graphics, as well as contents from a database can be stored on a memory card, a USB memory stick or in the printer's internal IFFS memory. Only variable data are sent by a keyboard, a barcode scanner, a scale or any other host system to a printer to be printed. It may also be recalled by the Database Connector from the host and printed.



Printer control



Drivers

cab provides 32 / 64 bit drivers to control a printer with software other than cablabel S3.



To run the drivers, operating systems need to be at least Windows Vista, Mac OS 10.6 and Linux CUPS 1.2.



Drivers are provided on a DVD included in the scope of delivery of a printer, and for free download on www.cab.de/en/support

Programming



JScript

cab printers embed the JScript programming language. Free manual download on www.cab.de/en/programming



abc Basic Compiler

abc in addition to JScript and as an integral firmware component enables advanced printer programming before data are edited for printout. For example, external printer languages can be replaced without intervening in the print application in progress. Data may be imported as well from other systems such as scales, barcode scanners or a PLC.

Integration



Printer Vendor Program

cab as a partner in this program developed a replace method to control cab printers from SAP2) R/3 using SAPScript. Only variable data are sent by a host system to a printer. They unite on the printer with the images and fonts that have been stored in the local memory (IFFS, memory card, etc.).

Printer administration



Configuration in the Intranet and Internet

cab printers integrate a HTTP and FTP server. By this, a printer can be controlled and configured, firmware updated and memory cards managed using standard applications such as web browsers or FTP clients. Using SNMP/SMTTP clients, the attention of administrators or operators is drawn to warnings and errors via email or SNMP datagrams. Time and date are synchronized using a time server.



Network Manager in preparation

Several printers can be managed simultaneously in a network, controlled and configured from one place. So are firmware updates, memory card management, data synchronization and PIN administration.



Database Connector

Printers connected to a network may access data directly from a central ODBC or OLEDB database and print it on a label. While printing, data can be rewritten to the database.

¹⁾ Windows is a registered trademark of Microsoft Corporation

²⁾ SAP and all corresponding logos are trademarks or registered trademarks of SAP SE

Delivery program

Pos.		Part no.	Tube labeling system
1.1		5979600	Tube labeling system AXON 1/300 100-240 VAC
		5979740	Tube labeling system AXON 1/600 100-240 VAC
		5977767	Code-Checker I/O interface
		5570200	Scanner CC200
		5979765	Label pre-warning
Scope of delivery			
DVD:	Tube labeling system Power cable Type E+F, length 1.8 m Connecting cable USB, length 1.8 m Instructions DE/EN Instructions Configuration manual DE/EN/FR Service manual DE/EN Spare parts list DE/EN Programming manual EN WHQL certified Windows printer drivers for Windows Vista Server 2008 Windows 7 Server 2008 R2 Windows 8 Server 2012 Windows 8.1 Server 2012 R2 Windows 10 Server 2016 Server 2019 Apple Mac OS X printer drivers DE/EN/FR Linux printer drivers DE/EN/FR Label software cablabel S3 Lite cablabel S3 Viewer Database Connector		

Pos.		Part no.	Accessories
2.7		5977370	SD memory card 8 GB
2.8		5977730	USB memory stick 8 GB
2.9		5978912.001	USB WLAN stick 2.4 GHz 802.11b/g/n
2.10		5977731	USB WLAN stick with a rod antenna 2.4 GHz 802.11b/g/n + 5 GHz a/n/ac
2.11		5977732	USB Bluetooth adapter
3.2		5917651	I/O interface connector SUB-D 25 pins
3.4		5955710	Hand switch TR2
4.1		5550818	Connecting cable RS232C 9/9 pins, length 3 m

Check list tube labeling system AXON 1

Send the completed form to your cab contact person
or email to info@cab.de

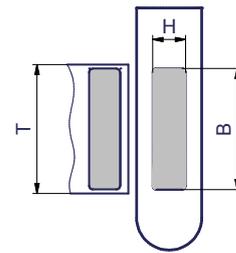


Checklist download:
www.cab.de/en/axon1-conf

Customer / no. _____
 Person in charge _____
 Phone _____
 Street _____
 Zip code / City _____
 Email _____

Date of issue _____
 Target date _____
 Project owner _____
 Project controlling _____
 Configurator no. _____
 (filled in by cab)

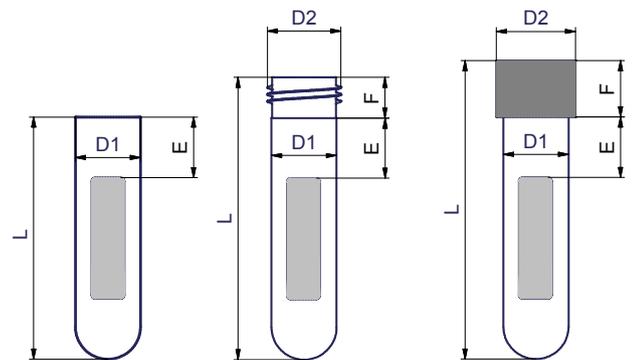
1. **Label** Width B _____ mm
 Height H _____ mm
 Type of material _____
 Width of liner tape T _____ mm



2. **Printing method** 2.1 Thermal direct
 2.2 with a ribbon

3. **Ribbon** Width _____ mm
 Type of material _____
 Winding inside outside

4. **Tubes** 1 Diameter D1 _____ mm
 2 Diameter D2 _____ mm
 3 Length L _____ mm
 4 Distance E _____ mm
 5 Distance F _____ mm



5. **Tube labeling system**

- 5.1 5979600 Tube labeling system AXON 1/300 100 - 240 VAC
- 5.2 5979740 Tube labeling system AXON 1/600 100 - 240 VAC
- 5.3 5977767 Digital I/O interface
- 5.4 5570200 Code-Checker CC200
- 5.5 5570200 Label pre-warning

Filled in by cab:

practicable yes no

Name _____
 Phone _____
 Email _____
 Part no. _____ Name _____
 Date _____ Signature _____

Customer approval required after practicability check:

yes no

Name _____
 Phone _____
 Email _____
 Date _____ Signature _____

System adjustment and check:

To do this, we need to have approx. 100 tubes
 1 label roll
 1 ribbon roll

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