

Status: 01/2024



Labeling systems  
for tubes and vials

**AXON**  
Made in Germany

## Reliable tube and vial labeling using AXON

### Tubes



### Vials



## Samples identified in real time

Unique labeling enables samples be assigned quick and reliably in labs.

In practice, self-adhesive labels are applied individually to tubes or vials. 1D or 2D encoding enables samples be processed fully automated in transport and filing.

AXON has been designed for direct thermal and thermal transfer label printing. 300 dpi or 600 dpi print resolutions favor sharp-edge and high-contrast print images. The smallest codes and fonts can be verified reliably.

A labeling cycle takes less than two seconds.

Tubes and vials with or without a closure cap can be inserted by hand or automated by a handling system.

Symbols on the control panel support AXON be operated intuitively. Replacing a label roll or a ribbon is no big deal. In cases of cleaning or wear, print rollers and transport rollers are easy to remove using a tool attached.

RS232, USB, Ethernet, WLAN and Bluetooth ensure data be transferred. AXON integrates to Laboratory Information Management Systems (LIMS).

If no PC is plugged, variable data can be entered on a control panel, with the help of a keyboard or a scanner.

110 VAC to 240 VAC input voltage at 50 / 60 Hz, 36 VDC to 60 VDC are options



See further information on  
[www.cab.de/axon1](http://www.cab.de/axon1)



See further information on  
[www.cab.de/axon2](http://www.cab.de/axon2)

| AXON 1  |                                | AXON 2  |  |
|---|--------------------------------|---|--|
| Modules of a SQUIX 2P label printer and modules of the tube applicator are united in one chassis. | <b>Printer</b>                 | Standard SQUIX 4MP label printer providing an AXON 2 applicator                 |  |
| no more than 56 mm  | <b>Label widths</b>            | no more than 110 mm   |  |
| vertical  | <b>Tube / vial orientation</b> | horizontal  |  |
| Once tubes or vials have been inserted to the retainer, they can be filled and sealed.            | <b>Particularity</b>           | Identified tubes and vials can be ejected automatically, for example to a tray. |  |
| 7 mm to 26 mm,<br>16 mm to 38 mm if options are provided  | <b>Tube / vial diameters</b>   | 10 mm to 22 mm,<br>7 mm to 12 mm if options are provided                        |  |
| 20 mm to 130 mm   | <b>Tube / vial lengths</b>     | 25 mm to 120 mm   |  |
| Warning on a label roll ending<br>Codes be verified   | <b>Options</b>                 | -   |  |

# AXON 1 tube labeling systems



## 1 Ribbon retainer

Materials are easy to remove with the help of a three-part tightening axle.

## 2 Antistatic brush

Electrostatic charge dissipates after printing, in particular if plastic materials are in use.

## 3 Transport roller

Labels are applied to tubes or vials. Height setting according to the length of a tube or vial

## 4 Control panel

Intuitive operation using self-explanatory symbols  
Rotation in steps of 90° by software command

## 5 Internal liner rewind unit

Materials are easy to remove with the help of a three-part tightening axle.

## 6 Print roller

Synthetic rubber favors highly accurate print images.

## 7 Peel-off plate, extended

It promotes labels be applied reliably to tubes or vials.

## 8 Pinch roller

Tubes or vials are pressed against the transport roller as labels are applied.

## 9 Solid cast aluminum chassis

Base of all components

## 10 Base plate

Height setting enables labels be located accurately to target positions on tubes or vials.



**processing labels 5 mm to 25.4 mm wide**

Small tubes or vials can be inserted more easily.



## 36 VDC - 60 VDC input voltage

Instead of standard power supply, a 36 VDC to 60 VDC module can be installed. A mating plug is provided on delivery.

# Options provided for AXON 1 tube labeling systems

3.1



## Cast aluminum cover

It prevents from contamination.  
A large inspection window is provided.

3.2



## CC200-AXON code verifier

1D\* codes are checked by a camera.  
One code per label can be verified in terms of readability (GOODBAD). Results are compared with the print data (VERIFY).

\*2D codes in preparation

3.3



**Warning on a label roll ending**, in preparation  
Remaining roll diameters are detected by a sensor.  
The I/O interface indicates predefined minimum values.  
Diameters may be requested or displayed also using data interfaces.

3.4



**K Type peel-off plate**, customer-specific  
If closure caps interfere with a peel-off plate, adaption is required.

3.6



**Digital 24 VDC I/O interface**  
SUB-D socket connector, 25 pins





# AXON 2 tube applicator



## 1 Peel-off plate

Adapted specifically to tubes and vials

## 2 TRV 14 transport roller (Ø 14 mm)

Labels are applied to tubes or vials of diameters 10 mm to 22 mm. By moving the roller along the shaft to specified positions, closure caps or protruding threads remain located beside the roller.

Operations require labels no more than 56 mm wide and a Type 56 peel-off plate. In cases of smaller diameters or wider labels, adapted transport rollers are provided as options.

## 3 Pinch rollers

Aligned according to the length of a tube or vial  
Tubes or vials are pressed against the transport roller as labels are applied.

## 4 Swivel arms providing a stop

Axial setting according to the length of a tube or vial and the label position

## 5 Material replacement

Pivoting the applicator simplifies labels or ribbons be replaced.

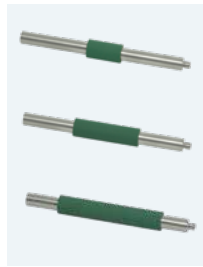
## 6 Tray

Tubes or vials ejected automatically after printing are collected.



See information  
on SQUIX 4MP label printers  
[www.cab.de/en/squix](http://www.cab.de/en/squix)

## Options provided for SQUIX 4MP label printers



### Slim DR4-M print rollers

If narrow labels are in use, accurate print images require adapted print rollers. Enhanced roller wear and contaminated print heads are avoided, so are errors during label feed.

DR4-M30 - labels no more than 25.4 mm wide

DR4-M60 - labels no more than 56.0 mm wide

DR4-M80 - labels no more than 76.0 mm wide



### Peel-off plates

Feeding below a pulley promotes labels be dispensed reliably.

Type 56.1 - labels no more than 56 mm wide (Ø14 mm)\*

Type 56.2 - labels no more than 56 mm wide (Ø18 mm)

two pressure rollers Ø19 mm are included

Type 110 - labels no more than 110 mm wide (Ø14 mm)

K Type - customer-specific, if closures of tubes or vials interfere with a standard peel-off plate

\*Included in scope of delivery



### 24 VDC digital I/O interface

SUB-D socket connector, 25 pins

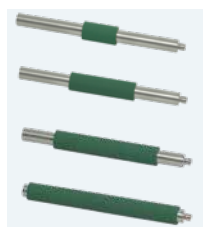
## Options provided for the AXON 2 tube applicator



**TRV 18 transport roller** (Ø 18 mm) for labels as wide as 56 mm

Labels are applied to tubes or vials of diameters 7 mm to 12 mm. By moving the roller along the shaft to specified positions, closure caps or protruding threads remain beside.

A type 56.2 peel-off plate is required for operation.



### Transport rollers

If tubes with diameters 10 mm to 22 mm are in use

| Type    | maximum label width | peel-off plate |
|---------|---------------------|----------------|
| DR4-M30 | 25.4 mm             | 56 mm          |
| DR4-M60 | 56.0 mm             | 56 mm          |
| DR4-M80 | 76.0 mm             | 110 mm         |
| DR4     | 110 mm              | 110 mm         |



**TRK transport roller**, customer-specific

If tube or vial dimensions do not coincide with specified transport rollers

Type 56, type 110 or K Type peel-off plates are required.







# Control panel

## Intuitive operation

Settings are easy to configure using self-explanatory symbols.

- 1 **LED:** Power ON
- 2 **Status bar:** Receive data, record datastream, warning on a ribbon ending, SD memory card / USB stick plugged, Bluetooth, WLAN, Ethernet, USB slave, Time
- 3 **Printer status:** Ready, pause, number of labels printed on a print job, label in peel-off position, awaiting external start signal
- 4 **USB slot** to plug a service key or a memory stick, to store data in the internal IFFS printer memory

## 5 Operation

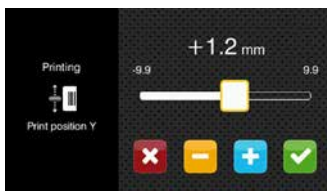
-  Print and apply labels step by step
-  Jump to menu
-  Reprint the last label
-  Interrupt and continue a print job
-  Stop and delete all print jobs
-  Label feed



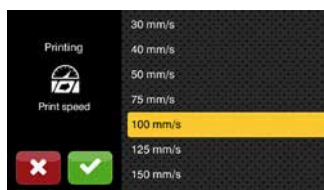
Setup options



Print parameters



Print positions Y



Print speeds

## Landscape or portrait display depending on the orientation of assembly

AXON 1 tube labeling system



- 1
- 4

## Rotation in steps of 90° by software command

SQUIX label printer representing AXON 2



Video tutorials



See AXON 1 videos on  
[www.cab.de/en/axon1-videos](http://www.cab.de/en/axon1-videos)



See AXON 2 videos on  
[www.cab.de/en/axon2-videos](http://www.cab.de/en/axon2-videos)



# Interfaces

- 1 Slot to plug a **SD memory card**
- 2 **2 USB hosts** to plug a service key, a USB stick, a keyboard, a barcode scanner, an USB Bluetooth adapter, an USB WLAN stick or an external control panel
- 3 **USB 2.0 Hi-speed** to plug a PC
- 4 **Ethernet 10/100 Mbit/s**
- 5 **RS232-C** 1,200 to 230,400 Baud / 8 Bit

Options

- 6 **Digital I/O interface**  
SUB-D socket connector, 25 pins  
compliant with IEC/EN 61131-2, Type 1+3  
Inputs and outputs are galvanically isolated and protect from reverse polarity. Outputs are short-circuit proof.

## PNP inputs

Start printing / applying a label  
Print initial label  
Reprint  
Delete print job  
Label removed  
Stop printing / applying a label  
Label feed  
Pause  
Reset

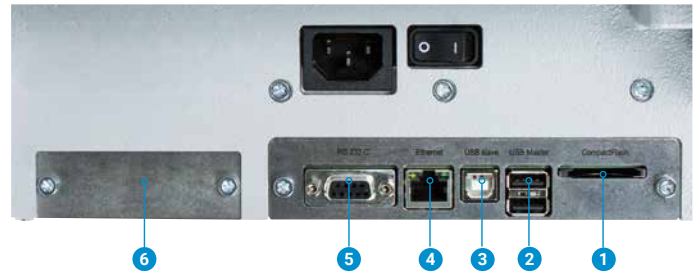
## PNP, NPN outputs

Device ready  
Print data available  
Initial position / upper end limit  
Paper feed ON  
Label in peel-off position  
Labeling position / lower end limit  
Warning on a ribbon ending  
Warning on a label roll ending\*  
Ribbon / Label roll ending  
Collective error

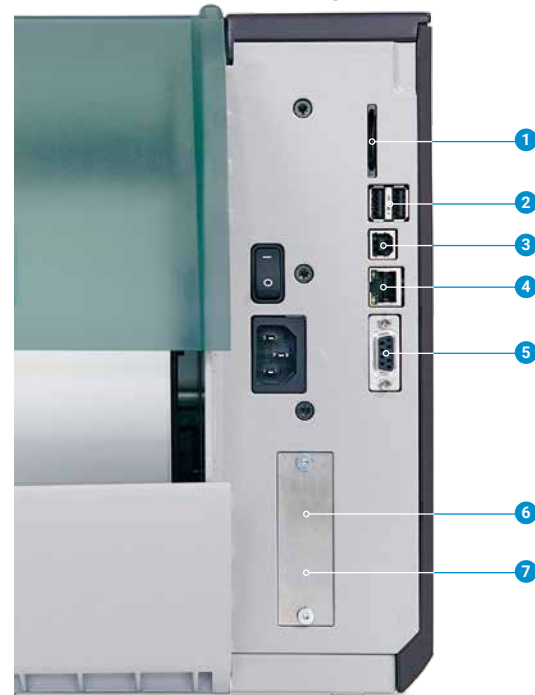
\*AXON 1 only



AXON 1 tube labeling system








SQUIX label printer representing AXON 2



# Accessories

They are plugged or screwed to a printer by the customer.

|      |   |   |
|------|---|---|
| 2.7  |  | <b>SD memory card</b>   |
| 2.8  |  | <b>USB stick</b>  |
| 2.9  |  | <b>USB WLAN stick</b><br>2.4 GHz 802.11b/g/n<br>Hotspot or infrastructure mode  |
| 2.10 |  | <b>USB WLAN stick with a rod antenna</b><br>2.4 GHz 802.11b/g/n + 5 GHz 802.11a/n/ac<br>Hotspot or infrastructure mode<br>Extended range of operation |
| 2.11 |  | <b>USB Bluetooth adapter</b>  |
| 2.12 |  | <b>I/O interface plug</b><br>SUB-D, 25 pins<br>All control signals can be attached to the I/O interface using clamping screws.                        |

|      |  |   |
|------|--|---|
| 2.13 |  | <b>External operation panel</b><br>If the operation panel of a printer cannot be accessed, an additional external one can be plugged.<br><br>Same functionality as on the printer<br>Landscape or portrait mode<br><br>Operability as desired on the external operation panel or on the printer |
|      |  | Printer connectivity:<br>USB 2.0 Hi-Speed device<br><br>cab provides specified <b>connecting USB cables</b> for power supply.<br>Lengths are 1.8 m to 16 m.   |
| 2.14 |  | <b>TR2 hand switch</b><br>A digital I/O interface is required   |
| 4.1  |  | <b>Connecting RS232-C cable</b><br>9/9 pins, 3 m  |

# Technical data

● typical ○ possible ■ standard □ option

| Tube labeling system  |                                | Type                           | AXON 1.1  |      | AXON 1.2 |      | Label printers providing AXON 2  |           |           |
|---|--------------------------------|--------------------------------|---|------|----------|------|--|-----------|-----------|
|   |                                |                                |   |      |          |      | SQUIX 4.3MP  | SQUIX 4MP | SQUIX 4MP |
| Print head  |                                |                                |   |      |          |      |  |           |           |
| Print method  | Thermal transfer               |                                | ●   | ●    | ●        | ●    | ●  | ●         | ●         |
|   | Direct thermal                 |                                | ●   | –    | ●        | –    | ●  | ○         | –         |
| Print resolution  |                                | dpi                            | 300   | 600  | 300      | 600  | 300  |           | 600       |
| Print speed   |                                | mm/s                           | 100   | 100  | 100      | 100  | 150  |           | 150       |
| Print width   |                                | mm max.                        | 25.4  | 25.4 | 56.9     | 54.1 | 108.4  | 105.7     | 105.7     |
| Material  |                                |                                |   |      |          |      |  |           |           |
| Tubes / Vials Orientation at the time of a label be applied |                                |                                | vertical  |      |          |      | horizontal   |           |           |
| Labels <sup>1)</sup>  | Diameter                       | mm                             | 7 - 26,<br>16 - 38 if options are provided  |      |          |      | 10 - 22,<br>7 - 12 if options are provided   |           |           |
|   | Length, closure cap included   | mm                             | 20 - 130  |      |          |      | 25 - 120   |           |           |
|   | Conicity (change in diameter)  | % max.                         | 0.8   |      |          |      | 0.8  |           |           |
|   | Material                       |                                | Paper, plastics such as PET, PP   |      |          |      | Paper, plastics such as PET, PP  |           |           |
|   | Width                          | mm                             | 5 - 25.4  |      | 5 - 56   |      | 5 - 56,<br>5 - 110 if options are provided   |           |           |
|   | Height                         | mm at least                    | 12  |      |          |      | 12   |           |           |
|   | Thickness                      | mm at least                    | 0.05  |      |          |      | 0.05   |           |           |
|   | Roll diameter                  | mm max.                        | 205   |      |          |      | 205  |           |           |
|   | Core diameter                  | mm                             | 76  |      |          |      | 38 - 76  |           |           |
|   | Winding                        |                                | outside   |      |          |      | outside  |           |           |
| Liner   | Width                          | mm                             | 16 - 30   |      | 24 - 60  |      | 9 - 60,<br>9 - 114 if options are provided   |           |           |
|   | Thickness <sup>2)</sup>        | mm                             | 0.045 - 0.05  |      |          |      | 0.045 - 0.05   |           |           |
| Ribbon  | Coating                        |                                | outside or inside   |      |          |      | outside or inside  |           |           |
|   | Roll diameter                  | mm max.                        | 80  |      |          |      | 80   |           |           |
|   | Core diameter                  | mm                             | 25  |      |          |      | 25   |           |           |
|   | Length                         | m max.                         | 600   |      |          |      | 600  |           |           |
|   | Width                          | mm                             | 25 - 38.1   |      | 25 - 60  |      | 25 - 114   |           |           |
| Printer dimensions and weights                              |                                |                                |   |      |          |      |  |           |           |
| Width x Height x Depth                                      |                                | mm                             | 270 x 195 x 560   |      |          |      | 252 x 288 x 520  |           |           |
| Weight  |                                | kg approx.                     | 12  |      |          |      | 12   |           |           |
| Label sensors / Position indicators                         |                                |                                |   |      |          |      |  |           |           |
| Transmissive sensor   |                                | to detect                      | labels or punch marks and materials ending, print marks on transparent materials  |      |          |      |  |           |           |
| Reflective sensor   |                                | bottom or top reflex to detect | labels and materials ending, print marks on non-transparent materials   |      |          |      |  |           |           |
| Sensor  | to the contact edge            | left-aligned                   | mm  | 8    | 5 - 12   |      | -  |           |           |
| distance  | center to the contact edge     | centered                       | mm  | -    | -        |      | 0 - 55   |           |           |
| Interfaces  |                                |                                |   |      |          |      |  |           |           |
| RS232-C 1,200 to 230,400 Baud / 8 Bit                       |                                |                                | ■   |      |          |      |  |           |           |
| USB 2.0 Hi-speed to plug a PC                               |                                |                                | ■   |      |          |      |  |           |           |
| Ethernet 10/100 Mbit/s                                      |                                |                                | LPD, RawIP printing, SOAP web service, OPC UA, WebDAV<br>DHCP, HTTP / HTTPS, FTP / FTPS, TIME, NTP, Zeroconf, SNMP, SMTP, VNC |      |          |      |  |           |           |
| 1 USB host on the control panel                             |                                | to plug a                      | service key, USB stick  |      |          |      |  |           |           |
| 2 USB hosts on the back of the device                       |                                | to plug a                      | keyboard, barcode scanner, USB Bluetooth adapter, USB WLAN stick  |      |          |      |  |           |           |
| Digital 24 VDC I/O interface                                |                                |                                | □   |      |          |      |  |           |           |
| Operational data  |                                |                                |   |      |          |      |  |           |           |
| Voltage   |                                | 100 - 240 VAC, 50 / 60 Hz, PFC | ■   |      |          |      |  |           |           |
|   |                                | 36 - 60 VDC                    | □   |      |          |      | -  |           |           |
| Power input   |                                |                                | <10 W in standby / 80 W are typical / max. 200 W  |      |          |      |  |           |           |
| Temperature / Humidity                                      |                                | In operation                   | +5 - 40°C / 10 - 85 %, not condensing   |      |          |      |  |           |           |
|   |                                | On stock                       | 0 - 60°C / 20 - 85 %, not condensing  |      |          |      |  |           |           |
|   |                                | In transport                   | -25 - 60°C / 20 - 85 %, not condensing  |      |          |      |  |           |           |
| Approvals   |                                |                                | CE (In-vitro), FCC Class A, ICES-3, cULus, CB<br>further approvals on request   |      |          |      | CE (In-vitro), FCC Class A, ICES-3, cULus, CB<br>CCC, BIS, BSMI, KC-Mark, CoC Mexico |           |           |
| Control panel   |                                |                                |   |      |          |      |  |           |           |
| LCD color touchscreen                                       | Screen diagonal                | "                              | 4.3   |      |          |      |  |           |           |
|   | Resolution - Width x Height px |                                | 272 x 480   |      |          |      |  |           |           |

<sup>1)</sup> Limitations may apply when using small labels, thin materials or strong adhesive. Critical applications need testing.

<sup>2)</sup> Peeling labels off a liner requires liner materials not thicker than the labels.

# Technical data

■ standard □ option

| Setup options                               |  |  |
|---|--|--|
|   | Print Labels<br>Ribbon<br>Label peel-off<br>Apply labels<br>Interfaces<br>Error  | Region:<br>- Language<br>- Country<br>- Keyboard<br>- Time zone<br>Time<br>Display:<br>- Brightness<br>- Low-power mode<br>- Orientation<br>Interpreter  |
| Status bar                                  |  |  |
|   | Receive data<br>Record datastream<br>Warning on a ribbon ending<br>SD memory card plugged<br>USB stick plugged   | Bluetooth<br>WLAN<br>Ethernet<br>USB slave<br>Time   |
| Technical control                           |  |  |
|   | Ribbon winding<br>Warning on a ribbon ending<br>Ribbon ending<br>Label roll ending<br>Tube / Vial diameter<br>Tube / Vial available<br><br>Warning on a label roll ending<br>Cover closed*   | Print head voltage<br>Print head temperature<br>Print head open<br><br>Pinch roller open<br>Peripheral error<br><br>Code verifier*                       |
|   | *AXON 1 only   |  |
| Test routines                               |  |  |
| System check                                | when turning on the device<br>print heads are also detected  |  |
| Info display,<br>test printout,<br>analysis | Status printout<br>Fonts list<br>List of devices<br>WLAN status  | Test grid<br>Label profile<br>List of events<br>Monitor mode   |
| Status notifications                        | - Printout of device figures, such as<br>print durations or hours of operation<br>- Device status request by software command<br>- Indication of errors related to a network,<br>barcode or periphery, missing links, etc.   |  |
| Fonts                                       |  |  |
| Internal                                    | 5 bitmap fonts:<br>12 x 12 dots<br>16 x 16 dots<br>16 x 32 dots<br>OCR-A<br>OCR-B  | 7 vector fonts:<br>AR Heiti Medium GB-Mono<br>CG Triumvirate Condensed Bold<br>Garuda<br>HanWangHeiLight<br>Monospace 821<br>Swiss 721<br>Swiss 721 Bold |
| To store                                    | TrueType fonts   |  |
| Character sets                              | Windows-1250 to -1257<br>DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869<br>EBCDIC 500<br>ISO 8859-1 to -10 and -13 to -16<br>WinOEM 720<br>UTF-8<br>MacRoman<br>DEC MCS<br>KOI8-R<br><br>Western European<br>Eastern European<br>Chinese, traditional<br>Chinese, simplified<br>Thai | Cyrillic<br>Greek<br>Latin<br>Hebrew<br>Arabian  |
| Bitmap                                      | Widths and heights 1 - 3 mm<br>Zoom factors 2 - 10<br>0°, 90°, 180°, 270° orientations   |  |
| Vector / TrueType                           | Widths and heights 0.9 - 128 mm<br>Continuous zoom<br>360° orientation in steps of 1°  |  |
| Font styles                                 | Bold, italic, underlined, outline, inverse<br>- depending on the font type   |  |
| Character pitch                             | Variable or monospace  |  |

| Graphics                       |  |                  |
|--------------------------------|--|------------------|
| Elements                       | Lines, arrows, rectangles, circles, ellipses<br>- filled and gradient  |                  |
| Formats                        | PCX, IMG, BMP, TIF, MAC, GIF, PNG  |                  |
| Codes                          |  |                  |
| 1D barcodes<br>(linear)        | Code 39, Code 93<br>Code 39 Full ASCII<br>Code 128 A, B, C<br>EAN 8, 13<br>Interleaved 2/5   |                  |
| 2D and<br>stacked codes        | DataMatrix<br>DataMatrix Rectangle Extension<br>QR code<br>Micro QR code<br>UPS MaxiCode<br>Codablock F<br><br>Request for further codes.          |                  |
|                                | Codes be verified by a CC200 verifier requires approval<br>depending on code types, sizes and contents.  |                  |
|                                | Check digits, plain text printout and start/stop encoding<br>are options depending on the code type.   |                  |
| Software                       |  |                  |
| Label software                 | cablabel S3 Lite<br>cablabel S3 Viewer<br>cablabel S3 Pro<br>cablabel S3 Print   | ■<br>■<br>□<br>□ |
| Running also with              | CODESOFT<br>Software Spectrum<br>NiceLabel<br>BarTender  |                  |
| Stand-alone<br>operation       |  | ■                |
| Windows<br>printer drivers for | Windows 10                      Server 2016<br>Windows 11                      Server 2019<br>Server 2022<br><br>Certification WHQL in preparation | ■                |
| Apple<br>printer drivers       | Mac OS 10.6 or any later release   | ■                |
| Linux<br>printer drivers       | CUPS 1.2 or any later release  | ■                |
| Programming                    | JScript printer language<br>abc Basic Compiler<br>ZPL II (Datastream be tested in advance)   | ■<br>■<br>□      |
| Integration                    | SAP<br>Database Connector  | ■<br>■           |
| Administration                 | Printer control<br>Configuration on the Intranet / Internet  | ■<br>■           |

Free and Open Source software are part of cab products.  
For information see [www.cab.de/opensource](http://www.cab.de/opensource)

# cablabel S3 software

## Design, print, administrate

cablabel S3 opens up the full potential of cab devices. If designing a label, the modular software adapts to requirements. Plugins are provided, such as the JScript Viewer to support native JScript programming. The user interface and the JScript code synchronize in real time. Features such as the Database Connector can be included, so can barcode verifiers.



For further information see  
[www.cab.de/en/cablabel](http://www.cab.de/en/cablabel)



## Stand-alone printing

Printers in this mode of operation are able to select labels and print them when no host is connected.

Labels are designed on a PC, using software such as cablabel S3 or a text editor. Label formats, contents, graphics and data off a database are stored on a memory card, a USB stick or in the internal IFFS printer memory.

Only variable data are sent to a printer from a host system such as a keyboard, a barcode scanner or a scale and/or requested from a host by the Database Connector and printed.



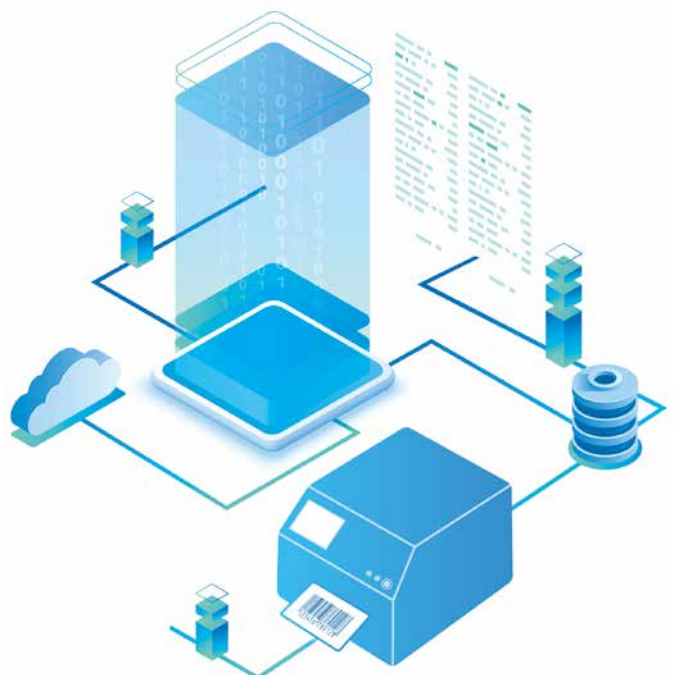
## OPC UA

The latest cab printers are ready to interact with machines and components of different manufacturers in industrial plants.

An OPC UA server and an OPC UA client are part of the firmware.

The OPC UA server enables a printer be configured and controlled and dynamic print data be edited using a selected programming interface.

The OPC UA client enables data on other OPC UA-ready machines be read and included on a label design. No additional software is required.



# Printer control

## Drivers



cab provides drivers to control a printer with software other than cablabel S3.



Free download on [www.cab.de/en/support](http://www.cab.de/en/support)



## Programming



### JScript

cab printers embed JScript language.

Download free manual on [www.cab.de/en/programming](http://www.cab.de/en/programming)



### abc Basic Compiler

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

## Integration



### Printer Vendor program

cab as a member of this program developed a replace method for controlling cab printers from SAP<sup>1)</sup> R/3 using SAPScript. Only variable data are sent by a host system to a printer. They add on the printer to local images and fonts (IFFS, memory card, etc.).

#### Step 1

Create a label and a replace file using cablabel S3

#### Step 2

Take the replace file and replace variable data using SAPScript

#### Step 3

Printout from SAP

<sup>1)</sup> SAP and all its corresponding logos are trademarks or registered trademarks of SAP SEE

# Printer administration



## Configuration on the Intranet / Internet

Integral HTTP / FTP servers enable a printer be controlled or configured, firmware be updated and memory cards be administrated using standard applications such as a web browser or a FTP client.

Administrators and operators on behalf of SNMP / SMTP are notified of states, alerts and errors by email or SNMP datagrams. Time and date are synchronized by a time server.



## Database Connector





Printers in a network may access data from a ODBC / OLEDB database and print it on labels. Data can be rewritten to a database while print jobs are in progress.





# Delivery program

## AXON 1 tube labeling systems

| Pos. |   | Item no.           | Designation   |
|------|---|--------------------|---|
| 1.1  |  | <b>5984920.xxx</b> | AXON 1.1/300 tube labeling system                   |
| 1.2  |   | <b>5984930.xxx</b> | AXON 1.1/600 tube labeling system                   |
| 1.3  |  | <b>5979600.xxx</b> | AXON 1.2/300 tube labeling system                   |
| 1.4  |   | <b>5979740.xxx</b> | AXON 1.2/600 tube labeling system                   |
| 1.5  |  | <b>5984970.xxx</b> | AXON 1.1/300 tube labeling system 36-60 VDC         |
| 1.6  |   | <b>5984975.xxx</b> | AXON 1.1/600 tube labeling system 36-60 VDC         |
| 1.7  |  | <b>5984980.xxx</b> | AXON 1.2/300 tube labeling system 36-60 VDC         |
| 1.8  |   | <b>5984985.xxx</b> | AXON 1.2/600 tube labeling system 36-60 VDC         |
|      |   | <b>5561500</b>     | System aligned and checked using customer materials |


xxxxxxx.250 system providing options

## Options provided for AXON 1 tube labeling systems



| Pos. |   | Item no.           | Designation                                   |
|------|---|--------------------|---|
| 3.1  |    | <b>5988215.xxx</b> | Cover   |
| 3.2  |  | <b>5988255.250</b> | CC200-AXON code verifier                      |
| 3.3  |  | <b>5979765.250</b> | Warning on a label roll ending in preparation |
| 3.4  |  | <b>59xxxxx.250</b> | K Type peel-off plate                         |
| 3.6  |  | <b>5977767.xxx</b> | Digital 24 VDC I/O interface                  |

xxx - .250 assembled to a system  
.001 separate delivery  
as an accessory

| Tube labeling systems - Scope of delivery |  |
|---|--|
|   | Tube labeling system<br>Type E+F power cable, 1.8 m<br>Connecting USB cable, 1.8 m<br>Instructions DE/EN |







| Provided online   |  |
|---|--|
|  | Instructions<br>Configuration manuals DE/EN/FR<br>Service manuals DE/EN<br>Spare parts lists DE/EN<br>Programming manual EN<br>Windows printer drivers for<br>Windows 10 Server 2016<br>Windows 11 Server 2019<br>Server 2022<br>Certification WHQL in preparation<br>Mac OS X printer drivers DE/EN/FR<br>Linux printer drivers DE/EN/FR<br>cablabel S3 Lite software<br>cablabel S3 Viewer<br>Database Connector |
| <a href="https://setup.cab.de/en">https://setup.cab.de/en</a>                       |  |

## AXON 2 tube labeling systems




| Pos. |   | Item no.   | Designation   |
|------|---|--|---|
| 1.1  |  | <b>5977023.xxx</b><br><b>5977007.xxx</b><br><b>5977008.xxx</b> | SQUIX 4.3/300MP label printer<br>SQUIX 4/300MP label printer<br>SQUIX 4/600MP label printer           |
| 6.1  |  | <b>5987150.xxx</b>   | AXON 2 tube applicator providing a Type 56.1 peel-off plate (Ø14 mm) a TRV 14 transport roller a tray |
|      |   | <b>5561500</b>   | System aligned and checked using customer materials   |

xxxxxxx.250 system providing options

## Options provided for SQUIX label printers

| Pos. |   | Item no.           | Designation   |
|------|---|--------------------|---|
| 2.1  |    | <b>5953700.xxx</b> | DR4-M30 print roller  |
|      |    | <b>5953701.xxx</b> | DR4-M60 print roller  |
|      |   | <b>5953702.xxx</b> | DR4-M80 print roller  |
| 2.2  |  | <b>5987212.xxx</b> | Type 56.2 peel-off plate (Ø18 mm) including two pressure rollers Ø19 mm |
| 2.3  |  | <b>5979925.xxx</b> | Type 110 peel-off plate   |
| 2.4  |   | <b>59xxxxx.250</b> | K Type peel-off plate   |
| 2.6  |  | <b>5977767.xxx</b> | Digital 24 VDC I/O interface  |

## Options provided for the AXON 2 tube applicator

| Pos. |   | Item no.                             | Designation                               |
|------|---|--------------------------------------|---|
| 5.1  |  | <b>5987151.xxx</b>                   | TRV 18 transport roller                   |
| 5.2  |  | <b>5953700.xxx</b>                   | DR4-M30 print roller                      |
|      |  | <b>5953701.xxx</b>                   | DR4-M60 print roller                      |
|      |  | <b>5953702.xxx</b>                   | DR4-M80 print roller                      |
|      |  | <b>5954180.xxx</b>                   | DR4 print roller                          |
| 5.3  |  | <b>59xxxxx.250</b><br><b>5535960</b> | TRK transport roller<br>TRK one-off costs |

xxx - .250 assembled to a system  
.001 separate delivery  
as an accessory




Options are parts or components to perform special functions. They are assembled in addition to or instead of standards. In cases of options be assembled ex factory, the part numbers are added by .250. Options delivered separately are added by .001.

# Delivery program




## AXON 1 / SQUIX accessories

| Pos. |  | Item no.           | Designation   |
|------|--|--------------------|---|
| 2.7  |   | <b>5977370</b>     | SD memory card  |
| 2.8  |   | <b>5977730</b>     | USB memory stick  |
| 2.9  |   | <b>5978912</b>     | USB WLAN stick<br>2.4 GHz 802.11b/g/n                                   |
| 2.10 |   | <b>5977731</b>     | USB WLAN stick with a rod antenna<br>2.4 GHz 802.11b/g/n + 5 GHz a/n/ac |
| 2.11 |   | <b>5977732</b>     | USB Bluetooth adapter   |
| 2.12 |   | <b>5917651</b>     | I/O interface plug<br>SUB-D, 25 pins                                    |
| 2.13 |   | <b>6010186</b>     | External control panel  |
|      |  | <b>5907718.850</b> | Connecting USB cable, 1.8 m   |
|      |  | <b>5907730.850</b> | Connecting USB cable, 3 m   |
|      |  | <b>5907750.850</b> | Connecting USB cable, 5 m   |
|      |  | <b>5907760.850</b> | Connecting USB cable, 11 m  |
|      |  | <b>5907765.850</b> | Connecting USB cable, 16 m  |
| 2.14 |   | <b>5955710</b>     | TR2 hand switch   |
| 4.1  |  | <b>5550818</b>     | Connecting RS232-C cable<br>9/9 pins, 3 m                               |

## AXON 1 wear parts

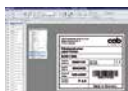
| Pos. |   | Item no.           | Designation       | dpi |
|------|---|--------------------|-------------------|-----|
|      |  | <b>5977384.001</b> | Type 2 print head | 300 |
|      |   | <b>5977385.001</b> | Type 2 print head | 600 |
|      |  | <b>5954102.001</b> | DR2 print roller  |     |
|      |  | <b>5954104.001</b> | RR2 pulley        |     |

## SQUIX label printer wear parts

| Pos. |   | Item no.           | Designation         | dpi |
|------|---|--------------------|---------------------|-----|
|      |  | <b>5977383.001</b> | Type 4.3 print head | 300 |
|      |   | <b>5977444.001</b> | Type 4 print head   | 300 |
|      |   | <b>5977380.001</b> | Type 4 print head   | 600 |
|      |  | <b>5954180.001</b> | DR4 print roller    |     |
|      |  | <b>5954183.001</b> | RR4 pulley          |     |

Scopes of delivery, designs and technical data correspond to the date of this edition and are subject to change. Information provided in the catalogue do not represent any warranty or guarantee.

## AXON 1 / SQUIX label software

| Pos. |  | Item no.       | Designation                                 |
|------|--|----------------|---|
| 7.6  |  | Bundle         | cablabel S3 Lite<br>(download on cab.de/en) |
|      |  | <b>5588001</b> | cablabel S3 Pro, 1 WS                       |
|      |  | <b>5588100</b> | cablabel S3 Pro, 5 WS                       |
|      |  | <b>5588101</b> | cablabel S3 Pro, 10 WS                      |
|      |  | <b>5588150</b> | cablabel S3 Pro, 1 additional licence       |
|      |  | <b>5588151</b> | cablabel S3 Pro, 4 additional licences      |
|      |  | <b>5588152</b> | cablabel S3 Pro, 9 additional licences      |
|      |  | <b>5588002</b> | cablabel S3 Print, 1 WS                     |
|      |  | <b>5588105</b> | cablabel S3 Print, 5 WS                     |
|      |  | <b>5588106</b> | cablabel S3 Print, 10 WS                    |
| 7.10 |  | <b>5588155</b> | cablabel S3 Print, 1 additional licence     |
|      |  | <b>5588156</b> | cablabel S3 Print, 4 additional licences    |
|      |  | <b>5588157</b> | cablabel S3 Print, 9 additional licences    |
|      |  | in preparation | cablabel S3 Print Server                    |
|      |  | <b>9008486</b> | Programming manual EN,<br>printed copy      |

## AXON 1 / AXON 2 / SQUIX user languages

| Language              | Instructions /<br>assembly instructions |           |       | Control<br>panel | Windows<br>driver | Service<br>manual | cablabel<br>S3 |
|-----------------------|---|-----------|-------|------------------|-------------------|-------------------|----------------|
|                       | AXON<br>1                               | AXON<br>2 | SQUIX |                  |                   |                   | SQUIX          |
| European Union        |   |           |       |                  |                   |                   |                |
| Bulgarian             |   |           | X     | X                | X                 |                   | X              |
| Danish                |   |           | X     | X                | X                 |                   |                |
| German                | X                                       | X         | X     | X                | X                 | X                 | X              |
| Estonian              |   |           | X     | X                | X                 |                   |                |
| Finnish               |   |           | X     | X                | X                 |                   |                |
| French                | X                                       | X         | X     | X                | X                 |                   | X              |
| Greek                 |   |           | X     | X                | X                 |                   |                |
| English               | X                                       | X         | X     | X                | X                 | X                 | X              |
| Italian               |   |           | X     | X                | X                 |                   | X              |
| Croatian              |   |           | X     | X                | X                 |                   |                |
| Latvian               |   |           | X     | X                | X                 |                   |                |
| Lithuanian            |   |           | X     | X                | X                 |                   |                |
| Dutch                 |   |           | X     | X                | X                 |                   |                |
| Polish                |   |           | X     | X                | X                 |                   | X              |
| Portuguese            |   |           | X     | X                | X                 |                   |                |
| Romanian              |   |           | X     | X                | X                 |                   |                |
| Swedish               |   |           | X     | X                | X                 |                   |                |
| Slovak                |   |           | X     | X                | X                 |                   |                |
| Slowenian             |   |           | X     | X                | X                 |                   |                |
| Spanish               |   |           | X     | X                | X                 |                   | X              |
| Czech                 |   |           | X     | X                | X                 |                   | X              |
| Hungarian             |   |           | X     | X                | X                 |                   |                |
| Europe (Non-EU)       |   |           |       |                  |                   |                   |                |
| Macedonian            |   |           |       | X                | X                 |                   |                |
| Norwegian             |   |           | X     | X                | X                 |                   |                |
| Russian               |   |           | X     | X                | X                 |                   | X              |
| Serbian               |   |           |       | X                | X                 |                   |                |
| Turkish               |   |           | X     | X                | X                 |                   |                |
| Asia                  |   |           |       |                  |                   |                   |                |
| Chinese (simplified)  |   |           | X     | X                | X                 |                   | X              |
| Chinese (traditional) |   |           | X     | X                | X                 |                   | X              |
| Japanese              |   |           | X     |                  | X                 |                   |                |
| Korean                |   |           | X     |                  | X                 |                   | X              |
| Thai                  |   |           | X     | x                | X                 |                   |                |
| Middle East           |   |           |       |                  |                   |                   |                |
| Persian               |   |           |       | X                |                   |                   |                |
| Arabic                |   |           |       | X                |                   |                   |                |

# Checklist for AXON tube labeling systems



Download checklist on  
[www.cab.de/en/axon-conf](http://www.cab.de/en/axon-conf)

Customer / Customer no. \_\_\_\_\_  
 Contact \_\_\_\_\_  
 Phone \_\_\_\_\_  
 Street \_\_\_\_\_  
 Zip code / City \_\_\_\_\_  
 Email \_\_\_\_\_

1. **Label** Width B \_\_\_\_\_ mm  
 Height H \_\_\_\_\_ mm  
 Type of material \_\_\_\_\_  
 Width T of liner \_\_\_\_\_ mm
2. **Print method** 2.1 ☐ Direct thermal  
 2.2 ☐ Thermal transfer
3. **Ribbon** Width \_\_\_\_\_ mm  
 Type of material \_\_\_\_\_  
 Winding ☐ inside ☐ outside
4. **Tubes / Vials** 1 Diameter D1 \_\_\_\_\_ mm  
 2 Diameter D2 \_\_\_\_\_ mm  
 3 Diameter D3 \_\_\_\_\_ mm  
 4 Length L \_\_\_\_\_ mm  
 5 Distance E \_\_\_\_\_ mm  
 6 Height F \_\_\_\_\_ mm  
 7 Insertion / Removal ☐ by hand ☐ automated

## AXON 1

### 5. Tube-Etikettiersysteme

- 5.1 ☐ 5984920.xxx AXON 1.1/300 tube labeling system  
 5.2 ☐ 5984930.xxx AXON 1.1/600 tube labeling system  
 5.3 ☐ 5979600.xxx AXON 1.2/300 tube labeling system  
 5.4 ☐ 5979740.xxx AXON 1.2/600 tube labeling system  
 5.5 ☐ 5984970.xxx AXON 1.1/300 tube labeling system 36-60 VDC  
 5.6 ☐ 5984975.xxx AXON 1.1/600 tube labeling system 36-60 VDC  
 5.7 ☐ 5984980.xxx AXON 1.2/300 tube labeling system 36-60 VDC  
 5.8 ☐ 5984985.xxx AXON 1.2/600 tube labeling system 36-60 VDC

### 6. Options

- 6.1 ☐ 5988215.xxx Cover  
 6.2 ☐ 5988255.250 Code-Checker CC200-AXON (auf Anfrage)  
 6.3 ☐ 5979765.250 Etikettenvorwarnung (in Vorbereitung)  
 6.4 ☐ 59xxxxx.250 Spendekante K (kundenspezifisch)  
 6.6 ☐ 5987288.250 Bausatz für Tube- / Vialdurchmesser 16 - 38 mm  
 Etikettenposition AXON 1.1: 1.0 mm bis 38 mm vom Boden  
 AXON 1.2: 1.0 mm bis 11 mm vom Boden  
 6.7 ☐ 5977767.xxx Digitale I/O-Schnittstelle 24 VDC

Filled in by cab:

Practicable ☐ yes ☐ no

Name \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Date \_\_\_\_\_ Signature \_\_\_\_\_

Customer approval required after check of practicability:

☐ yes ☐ no

Name \_\_\_\_\_

Phone \_\_\_\_\_

Email \_\_\_\_\_

Date \_\_\_\_\_ Signature \_\_\_\_\_

Date of issue \_\_\_\_\_

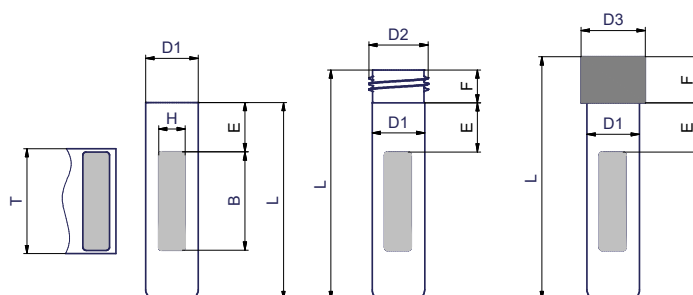
Target date \_\_\_\_\_

Project owner \_\_\_\_\_

Project control \_\_\_\_\_

Configurator no. \_\_\_\_\_

(filled in by cab)



☐ 5561500 **System aligned and checked**

Required are approx. 100 tubes / vials  
 1 label roll  
 1 ribbon roll

## AXON 2

5. **Tube / Vial opens to the** ☐ right ☐ left

6. **Tube / Vial removal** ☐ as inserted ☐ off a tray

### 7. Label printers configured for tube applicator use

- 7.1 ☐ 5977023.xxx SQUIX 4.3/300MP label printer  
 7.2 ☐ 5977007.xxx SQUIX 4/300MP label printer  
 7.3 ☐ 5977008.xxx SQUIX 4/600MP label printer

### 8. Options provided for label printers

- 8.1 ☐ 5953700.xxx DR4-M30 print roller (max. label width 25.4 mm)  
 8.2 ☐ 5953701.xxx DR4-M60 print roller (max. label width 56 mm)  
 8.3 ☐ 5953702.xxx DR4-M80 print roller (max. label width 76 mm)  
 8.4 ☐ 5987212.xxx Type 56.2 peel-off plate (Ø 18 mm)  
 including two pressure rollers Ø 19 mm  
 8.5 ☐ 5979925.xxx Type 110 peel-off plate (Ø 14 mm)  
 8.6 ☐ 59xxxxx.250 K Type peel-off plate (customer-specific)  
 8.8 ☐ 5977767.xxx Digital 24 VDC I/O interface

### 9. Tube applicator

- 9.1 ☐ 5987150.xxx AXON 2 tube applicator providing  
 a Type 56.1 peel-off plate (Ø 14 mm)  
 a TRV 14 transport roller (Ø 14 mm)  
 a tray

### 10. Options provided for tube applicator use

- 10.1 ☐ 5987151.xxx TRV 18 transport roller (Ø 18 mm)  
 10.2 ☐ 5953700.xxx DR4-M30 print roller (for transport roller use)  
 10.3 ☐ 5953701.xxx DR4-M60 print roller (for transport roller use)  
 10.4 ☐ 5953702.xxx DR4-M80 print roller (for transport roller use)  
 10.5 ☐ 5954180.xxx DR4 print roller (for transport roller use)  
 10.6 ☐ 59xxxxx.250 TRK transport roller  
☐ 5535960 TRK one-off costs

**Options are parts or components to perform special functions.  
 They are assembled in addition to or instead of standards.**

**In cases of options be assembled ex factory, the part numbers  
 are added by .250. Options delivered separately are added by .001.**

# Overview of cab products

Label printers  
**MACH1, MACH2**



Label printers  
**EOS 2**



Label printers  
**EOS 5**



Label printers  
**MACH 4S**



Label printers  
**SQUIX 2**



Label printers  
**SQUIX 4**



Label printers  
**SQUIX 6.3**



Label printers  
**SQUIX 8.3**



Label printers  
**XD Q double-sided**



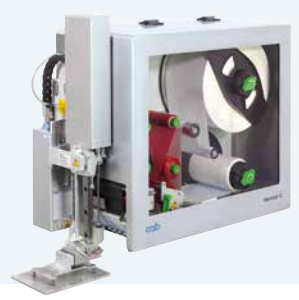
Label printers  
**XC two-colored**



Print and apply systems  
**HERMES Q**



Print and apply systems  
**Hermes C two-colored**



Tube labeling systems  
**AXON 1**



Print modules  
**PX Q**



Labels and ribbons



Label software  
**cablabel S3**



Label dispensers  
**HS, VS**



Labeling heads  
**IXOR**



Marking lasers  
**XENO 4**



Laser marking systems



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