

Status: 05/2024

cab
we identify more



Label printers
for printing on both sides
of a material

XD Q
Made in Germany

XD Q label printers for printing on both sides of a material



Highlights

- **300 dpi** if printing as wide as 105.7 mm
600 dpi if printing no more than **54.1 mm** wide, using a DR4-M60 print roller
Print heads designed for 300 dpi and such for 600 dpi are not interchangeable on the unit.
- **Heating** can be assigned separately to each print head.
- If **printing only on the top of a material** using print head 2, print head 1 is automatically lifted and the ribbon is stopped by an electromechanical brake.
- **Guiding materials in centered position** results in precise print images in particular with slim continuous materials are in use. The width of a material is set with the help of a spindle.
- **Automated ribbon saving** is provided on print head 1 when printing on the bottom of a material. The print head is lifted and the ribbon is stopped during material feed.
- **Continuous print images** when cutting or perforating labels at no backfeed.
- **Optimized printing**, so that multiple print jobs can be printed seamless and without loss of labels.
- **CSQ cutters** and **PSQ perforation cutters**
- **A separator** is part of the chassis. It separates continuous material reliably from a ribbon and improves the accuracy of feeding.
Type of transport roller:
Steel is a standard if printing on textile materials.
Rubber is an option with shrink tubes.
A transport roller can be pivoted for material changeover.
- **Find documentation** on the Internet.
DVDs are no longer part of delivery.

Textile tapes
Cardboard labels
Identification strips



Cable marking
Shrink tubes continuous
or ready for use



Labels
Printing only on the top of a material
using print head 2



Types of printers

1.1



XD Q providing a tear-off plate

All materials wound on a roll or a reel can be printed, so can fanfold ones.

Label printer		XD Q4/300	XD Q4.2/600
Print resolution	dpi	300	600
Print speed	mm/s max.	150	100
Print width	mm max.	105.7	54.1
Width of a material	mm max.	114	114

1.2



XD Q providing a CSQ 402 cutter

Paper labels and self-adhesive labels, cardboard and synthetic materials can be cut, so can shrink tubes.

Label printer		XD Q4/300-C2	XD Q4.2/600-C2
Print resolution	dpi	300	600
Print speed	mm/s max.	150	100
Print width	mm max.	105.7	54.1
Width of a material	mm max.	114	114
Tray	Materials as wide as mm	100	100

1.3



XD Q providing a PSQ 403 perforation cutter

Continuous materials such as shrink tubes can be perforated, to simplify separation by hand at a later stage. Cutting a material is as well possible.

Label printer		XD Q4/300-P3	XD Q4.2/600-P3
Print resolution	dpi	300	600
Print speed	mm/s max.	150	100
Print width	mm max.	105.7	54.1
Width of a material	mm max.	114	114
Tray	Materials as wide as mm	100	100

1.4



XD Q providing an UHF RFID module with read / write antennas

The module is installed into the chassis, the antenna directly on the print head. RFID tags are read and written just before the labels are printed. In the event of errors, labels are indicated invalid.

Deliverable from Q3/2024

Technical data

● typical ■ standard □ option

Label printer			XD Q4/300	XD Q4.2/600
Guidance of materials			centered	centered
Print method	Thermal transfer		●	●
Print resolution	dpi		300	600
Print speed	mm/s max.		150	100
Print width	mm max.		105.7	54.1
Automated ribbon saving			●	●
Materials¹⁾				
Paper, cardboard, synthetics PET, PE, PP, PI, PVC, PU, acrylate, Tyvec			●	●
Shrink tube	ready for use		●	●
	continuous, pressed		●	●
Textile tape			●	●
Finishing	Roll, fanfold		●	●
	Roll diameter	mm max.	300	
	Core diameter	mm	38.1 - 76	
	Winding		outside or inside	
Label	Width	mm	10 - 110	
	Height	mm at least	20	
	Thickness	mm max.	0.1	
Liner	Width	mm	14 - 114	
	Thickness	mm	0.03 - 0.16	
Continuous	Width	mm	4 - 114	
	Thickness	mm	0.03 - 0.5	
Shrink tube	Weight (cardboard)	g/m ² max.	300	
	Width	ready for use mm max.	114	
		continuous, pressed mm	4 - 85	
Ribbon ²⁾	Thickness	mm max.	1.1	
	Color side		outside or inside	
	Roll diameter	mm max.	80	
Ribbon ²⁾	Core diameter	mm	25.4	
	Length	m max.	450	
	Width	mm max.	114	
Printer dimensions, weight				
Width x Height x Depth / Weight			mm/kg	
			248 x 395 x 594 / 21	
Label sensors, position indicators				
Transmissive sensor		detecting	labels, punch marks, materials ending, print marks on translucent materials	
Reflective sensor	from below or top	detecting	labels, materials ending, print marks on non-translucent materials	
Sensor distance	centre to locating edge	centered mm	0 - 55	
Material passage		mm max.	2	
Electronics				
Processor, 32 bit clock rate		MHz	800	
RAM		MB	256	
IFFS		MB	50	
Port for plugging a SD memory card (SDHC, SDXC)		GB max.	512	
Battery for indicating time and date, real-time clock			■	
Data kept in memory (e.g. serial numbers) when power turns off			■	
Interfaces				
RS232-C 1,200 to 230,400 baud / 8 bit			■	
USB 2.0 Hi-Speed device to plug a PC			■	
Ethernet 10/100 Mbit/s			LPD, RawIP printing, SOAP web service, OPC UA, WebDAV DHCP, HTTP/HTTPS, FTP/FTPS, TIME, NTP, Zeroconf, SNMP, SMTP, VNC	
2 USB hosts on the control panel, 2 USB hosts on the back of a unit			Service key, USB stick, USB WLAN stick, USB WLAN stick with a rod antenna, keyboard, barcode scanner, external control panel	
USB host, 24 VDC, for peripheral plugging			■	
Digital I/O interface			□	

¹⁾ Specifications are standards. Operations including small, slim, thick or stiff materials need testing, so do strongly adhesive labels.

²⁾ A ribbon should be at least as wide as the liner material.

Technical data

■ standard □ option

Operating data	
Voltage	100-240 VAC, 50/60 Hz, PFC
Consumption of power	<10 W in standby / 100 W in typical operation / max. 200W
Temperature / Operation	+5 - 40°C / 10 - 85 %, not condensing
humidity	Stock 0 - 60°C / 20 - 85 %, not condensing
	Transport -25 - 60°C / 20 - 85 %, not condensing
Approvals	CE, FCC Class A, ICES-3, cULus, CB, CCC, KC-Mark, BSMI, Mexico Reg.
	in preparation BIS
Control panel	
Color LCD touchscreen	Diagonal " 4.3 Resolution Width x Height px 480 x 272
Setup options	
Print Labels Ribbon Tear off Cut Interfaces Error	Region: - Language - Country - Keyboard - Time zone Time Display: - Brightness - Power saving mode - Orientation Interpreter
Status bar	
Receive data Record datastream Warning to a ribbon ending SD memory card plugged USB stick plugged	WLAN Ethernet USB slave Time
Controls	
Ribbon 1/2 - Winding - Prior warning - End of ribbon Running out of material	Print head 1/2 - Voltage - Temperature - open Peripheral error
Test routines	
System diagnostics	upon startup, detection of print head included
Information display, test printout, analysis	Status printout Test grid Fonts list Label profile List of units List of events WLAN status Monitor mode
Status reports	- Printout of print durations, running hours, etc. - Status of a unit requested by software command - Display of errors related to a network, barcode or peripheral device, as well as links missing
Fonts	
Integral	5 bitmap fonts: 12 x 12 dots 16 x 16 dots 16 x 32 dots OCR-A OCR-B 7 vector fonts: AR Heiti Medium GB-Mono CG Triumvirate Condensed Bold Garuda HanWangHeiLight Monospace 821 Swiss 721 Swiss 721 Bold
For storing	TrueType fonts
Sets of characters	Windows-1250 to -1257 DOS 437, 737, 775, 850, 852, 857, 862, 864, 866, 869 EBCDIC 500 ISO 8859-1 to -10 and -13 to -16 WinOEM 720 UTF-8 MacRoman DEC MCS KOI8-R Western European Eastern European Chinese, simplified Chinese, traditional Thai Cyrillic Greek Latin Hebrew Arabic

Fonts	
Bitmap	1 mm to 3 mm wide and high Zoom factors 2 to 10 0°, 90°, 180°, 270° orientations
Vector / TrueType	0.9 mm to 128 mm wide and high Continuous zoom 360° orientation in steps of 1°
Styles	bold, italic, underlined, outline, inverse - depending on the font type
Character spacing	proportional or monospace
Graphics	
Elements	lines, arrows, rectangles, circles, ellipses - filled or gradient
Formats	PCX, IMG, BMP, TIF, MAC, GIF, PNG
Codes	
1D barcodes (linear)	Code 39, Code 93 Interleaved 2/5 Code 39 Full ASCII Ident and routing code Code 128 A, B, C of Deutsche Post EAN 8, 13 Codabar EAN/UCC 128/GS1-128 JAN 8, 13 EAN/UPC Appendix 2 MSI EAN/UPC Appendix 5 Plessey FIM Postnet HIBC RSS 14 UPC A, E, E0
2D codes, stacked codes	DataMatrix DataMatrix Rectangle Extension QR code Micro QR code GS1 QR code GS1 DataMatrix PDF 417 Micro PDF 417 UPS Maxicode GS1 DataBar Aztec Codablock F Dotcode RSS 14 truncated, limited, stacked, omni-directional All codes may vary in height, modular width and ratio. 0°, 90°, 180°, 270° orientations Feasibility of check digits, plain text printouts and start/stop coding depends on the type of code.
Software	
Label software	cablabel S3 Lite ■ cablabel S3 Viewer ■ cablabel S3 Pro □ cablabel S3 Print □
Running also with	CODESOFT Loftware Spectrum NiceLabel BarTender
Stand-alone operation	■
Windows printer drivers for	Windows 10 Server 2016 Windows 11 Server 2019 Server 2022 ■ Certification WHQL in preparation
Apple printer drivers	Mac OS X 10.6 or any later release ■
Linux printer drivers	CUPS 1.2 or any later release ■
Programming	JScript printer language ■ abc Basic Compiler ■ ZPL II (datastream be tested in advance) □
Integration	SAP ■ Database Connector ■
Administration	Printer control ■ Configuration on the Intranet and Internet ■

Free and Open Source software in cab products:
www.cab.de/opensource






Accessories / optional equipment

Accessorial products are plugged or screwed to a printer by a customer.






Options are parts or units to perform special functions. They are assembled to a printer in addition to or instead of standards. If order implies options be assembled ex factory, corresponding item numbers are added by .250.

Options delivered separately are added by .001.

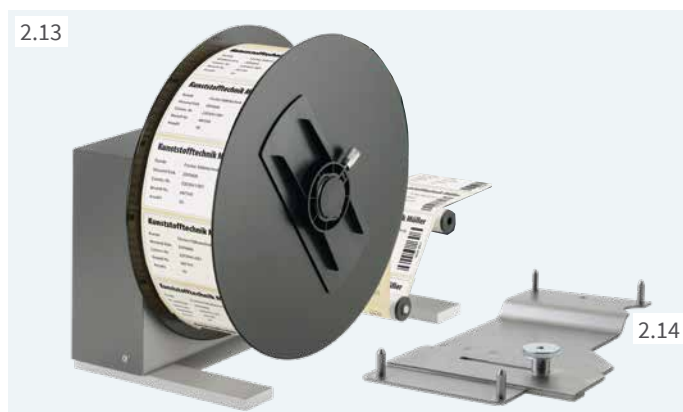
Zubehör

2.1		SD memory card
2.2		USB stick
2.3		USB WLAN stick 2.4 GHz 802.11b/g/n Hotspot mode or infrastructure mode
2.4		USB WLAN stick with a rod antenna for extended range of operation 2.4 GHz 802.11b/g/n + 5 GHz 802.11a/n/ac Hotspot mode or infrastructure mode
2.6		I/O interface plug SUB-D, 25 pins, for connecting all control signals to the I/O interface

Optionen

3.1		Adapter 40/100 for picking up label rolls with a core diameter of 100 mm One adapter is sufficient if processing materials no more than 50 mm wide.
3.2		Digital I/O interface Labeling is triggered via a PLC, a sensor or a hand switch. Status reports and errors are displayed simultaneously.
3.3		Slim print rollers They allow for accurate print results with small materials and ribbons. Synthetic rubber material for highly accurate print images Type materials as wide as DR4-M30 30 mm DR4-M60 60 mm DR4-M80 80 mm Silicone material preferred for textile operations and for extralong lifecycles DRS4-M35 35 mm DRS4-M50 50 mm
3.4		Standard print rollers Type materials as wide as 120 mm DR4 Synthetic rubber DRS4 Silicone
3.5		Transport rollers for separators Type materials as wide as 120 mm TR4 120 mm (synthetic rubber) preferred for shrink tube operations TR4-M60 60 mm (steel) preferred for textile operations

Rewinding



External ER4 rewriter, power supply built in

Label webs may be wound outside or inside. They are wound consistently and tight by electronic control, with a pendulum arm.

External rewriter		ER4/210	ER4/300
Width of a material	mm max.		120
Roll diameter	mm max.	205	300
Tightening axle	core diameter in mm	76	
Winding		outside or inside	
Voltage		100 - 240 V, 50/60 Hz	
Adapter kit		<input type="checkbox"/>	<input type="checkbox"/>

Cutting, perforating, stacking

2.8
CSQ 402



2.9
PSQ 403



2.10
CU400



2.11
PCU400



2.12
ST400 M



Cutters and perforation cutters

Paper, cardboard, textile and synthetic materials can be cut resp. perforated, so can shrink tubes, continuous or ready for use.

Differences between CSQ and CU resp. PSQ and PCU cutters:

- CSQ / PSQ can be pivoted to simplify material changeover.
- CSQ / PSQ are cutting twice as fast as CU /PCU cutters.
- CU / PCU cutters are still recommended with textile operations.

If perforating with a PSQ, six off-cuts remain at the center, each at a distance of 2.5 mm. At the left and right of a perforation, the material is entirely cut. If perforating with a PCU, there is off-cutting along the entire width.

Cutter	CSQ 402	PSQ 403	CU400	PCU400
Perforation cutter				
Material:				
Passage width mm max.	120		120	
Passage height mm max.	2.0		2.0	
Weight (cardboard) gr/m ² max.	300		300	
Thickness mm max.	1.1		1.1	
Perforation:				
Distance between off-cuts mm	-	2.5	-	2.5
Off-cut width mm	-	0.4	-	0.5
Number of off-cuts	-	6	-	48
Cutting length mm at least	10	10	5	5
Perforation length mm at least	-	3	-	5
Tray Materials as wide as mm	100	100	100	100
Performance cuts/min at use of material 1 mm high, no backfeed	200		100	
Controls	no final cutter position			
	cutter cover removed		-	

ST400 M stacker providing a cutter

Printed materials can be cut and then collected.

Print jobs stop if the maximum number of labels have been collected. Limitations may occur with stiff or curved materials. cab recommends to have such operations tested.

Stacker providing a cutter	ST400 M
Material	
Passage width mm	20 - 100
Passage height mm max.	1.2
Weight (cardboard) gr/m ²	60 - 300
Thickness mm	0.05 - 0.8
Cutting length mm	20 - 150
Performance cuts/min at use of material 1 mm high, no backfeed	100
Limit of collecting mm max.	100
Controls:	no final cutter position, paper jam, stacker cover open, limit of collecting

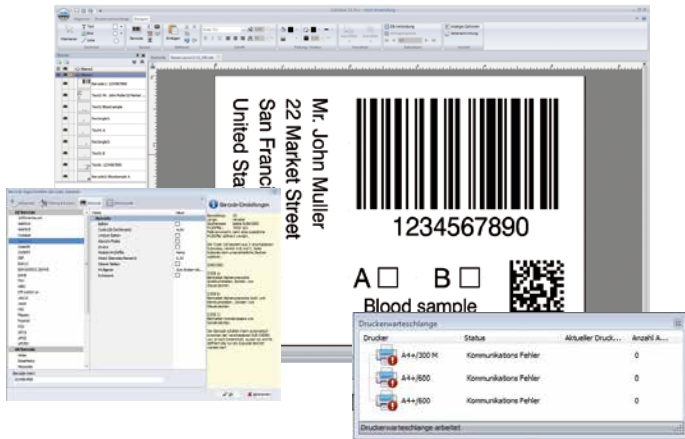
Support table - label W x H

The table and the protective cover are adapted to the size of a label. Please request individually.

cablabel S3 software

Design, print, administrate

cablabel S3 opens up the full potential of cab devices. Defining a label is first. Modular design adapts cablabel S3 to requirements step by step. Plug-ins are embedded. Native JScript programming, for example, is supported by the JScript Viewer. The designer user interface and JScript codes synchronize in real time. Optional features can be integrated, such as the Database Connector or barcode verifiers.



See further information on www.cab.de/en/cablabel

Stand-alone operation

This operating mode enables a printer select and print labels while not connected to a host system. Labels can be designed using software such as cablabel S3 or a text editor on a PC. Label formats, texts, graphics and data of a database can be stored on a memory card, a USB stick or a printer's IFFS memory. Only variable data are sent by a keyboard, a barcode scanner, a scale or any other host system to a printer, or be recalled by the Database Connector from a host and printed.



Printer control

Drivers



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



Free download on www.cab.de/en/support



Programming

JScript



cab printers embed JScript language. Download free manual on 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 SAP¹⁾ 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.).

Database Connector



Druckern mit Netzwerkanschluss wird ermöglicht, Daten aus einer zentralen ODBC- oder OLEDB-fähigen Datenbank direkt abzufragen und im Etikett zu drucken. Der Drucker kann während des Druckvorgangs Daten in die Datenbank zurückschreiben.

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.

OPC UA





All the latest cab printers have been designed ready for interacting with machines and components of different manufacturers in industrial plants. An OPC UA server is part of the firmware..

See further information on www.cab.de/en/opcu


¹⁾ SAP and associated logos are trademarks or registered trademarks of SAP SE.

Delivery program



Label printers

Pos.	Item no.	Designation
1.1	 6011500	XD Q4/300 label printer
	6011505	XD Q4.2/600 label printer
1.2	 6011502	XD Q4/300-C2 label printer with a CSQ 402 cutter
	6011507	XD Q4.2/600-C2 label printer with a CSQ 402 cutter
1.3	6011501	XD Q4/300-P3 label printer with a PSQ 403 perforation cutter
	6011506	XD Q4.2/600-P3 label printer with a PSQ 403 perforation cutter

xxx = UHF-RFID option provided

Pos.	Item no.	UHF-RFID provided
1.4	 xxxxxxx.406	UHF RFID OM module for XD Q4/300 XD Q4/300-C2 XD Q4/300-P3

Wear parts

Pos.	Item no.	Designation
	5987330.001	Print head 2/600
	5987089.001	Print head 4/300
	As for print rollers, see accessories	

Scope of delivery label printer XD Q

Label printer
Type E+F power cable, 1,8 m
Connecting USB cable, 1.8 m
Instructions DE / EN

Provided online

Instructions
Configuration manuals DE / EN / FR
Service manuals DE / EN
Spare parts lists DE / EN
Programming manual EN
Windows printer drivers for
Windows 10 Server 2016
Windows 11 Server 2019
Server 2022
Certification WHQL in preparation
Apple Mac OS X printer drivers DE / EN / FR
Linux printer drivers DE / EN / FR
cablabel S3 Lite software
cablabel S3 Viewer
Database Connector



<https://setup.cab.de/en>

Accessories

Accessory products are plugged or screwed to a printer by a customer.








See further accessories on www.cab.de/en/xdq-accessories





















Optional equipment

Options are parts or units to perform special functions. They are assembled to a printer in addition to or instead of standards. If order implies options be assembled ex factory, corresponding item numbers are added by .250. Options delivered separately are added by .001.

Accessories / optional equipment

Pos.	Item no.	Designation
2.1	 5977370	SD memory card
2.2	 5977730	USB stick
2.3	 5978912	USB WLAN stick 2.4 GHz 802.11b/g/n
2.4	 5977731	USB WLAN stick with a rod antenna 2,4 GHz 802.11b/g/n + 5 GHz a/n/ac
2.6	 5917651	I/O interface plug SUB-D, 25 pins


Optional equipment

Pos.	Item no.	Designation
3.1	 5959622.xxx	Adapter 40/100
3.2	 5551447.xxx	Digital I/O interface
3.3	 5953700.001	DR4-M30 print roller
	 5953701.001	DR4-M60 print roller
	 5953702.001	DR4-M80 print roller
3.4	 5977813.001	DRS4-M35 print roller
	 5977812.001	DRS4-M50 print roller
3.5	 5954180.001	DR4 print roller
	 5954985.001	DRS4 print roller
2.8	 6011614.001	TR4 transport roller
	 6011615.001	TR4-M60 transport roller
2.9	 5984565	CSQ 402 cutter tray provided
2.10	 5984130	PSQ 403 perforation cutter tray provided
2.11	 5978900	CU400 cutter tray provided
2.12	 5978901	PCU400/2,5 perforation cutter tray provided
2.13	 5541599	ST400 M stacker providing a cutter
2.14	 55xxxxx	Support table, label W x H Item no. specific to order
	 5948100	External ER4/210 rewinder
	 5946090	External ER4/300 rewinder
	 6011757	X series adapter kit

xxx - .250 assembled to a printer
.001 separate delivery
resp. spare part

Delivery program

Label software

Pos.	Item no.	Designation	
11.7	Bundle	cablabel S3 Lite (download on cab.de/en)	
	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	
		in preparation	cablabel S3 Print Server
11.10	9008486	Programming manual EN, printed copy	

Scopes of delivery, designs and technical data correspond to the date of this publication. They are subject to change. Catalog data do not represent any warranty or guarantee.

User languages

Language	Instruc- tions	Control panel	Windows driver	Service manual	cablabel S3
European Union					
Bulgarian	X	X	X		X
Danish	X	X	X		
German	X	X	X	X	X
Estonian	X	X	X		
Finnish	X	X	X		
French	X	X	X		X
Greek	X	X	X		
English	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		
Slovenian	X	X	X		
Spanish	X	X	X		X
Czech	X	X	X		X
Hungarian	X	X	X		
Europe (Non-EU)					
Macedonian	X	X	X		
Norwegian	X	X	X		
Russian	X	X	X		X
Serbian	X	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			
Arabian		X			

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



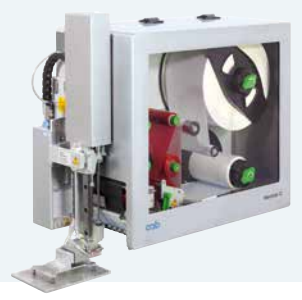
Label printers
XC two-colored



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



Germany
cab Produkttechnik GmbH & Co KG
Karlsruhe
Phone +49 721 6626 0
www.cab.de

France
cab Technologies S.à.r.l.
Niedermodern
Phone +33 388 722501
www.cab.de/fr

USA
cab Technology, Inc.
Chelmsford, MA
Phone +1 978 250 8321
www.cab.de/us

España
Solge Systems, S.L.
Barcelona
Phone +34 932 412 221
www.solge.es

Taiwan
cab Technology Co., Ltd.
Taipei
Phone +886 (02) 8227 3966
www.cab.de/tw

China
cab (Shanghai) Trading Co., Ltd.
Shanghai
Phone +86 (021) 6236 3161
www.cab.de/cn

Singapore
cab Singapore Pte. Ltd.
Singapore
Phone +65 6931 9099
www.cab.de/en

South Africa
cab Technology (Pty) Ltd.
Randburg
Phone +27 11 886 3580
www.cab.de/za

cab // 820 distribution and service partners in more than **80** countries

