

Status: 05/2022



Label printers
for printing on both sides
of a material

XDQ
Made in Germany

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



Particularities

- 300 dpi if printing as wide as 105.7 mm, 600 dpi at widths no more than **54.1 mm** with print roller DR4-M60
The 300 and 600 dpi printheads are not interchangeable in the device.
- 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 lifted by hand or automatically. Ribbons are removed or stopped by an electromechanical brake.
- An automated mechanics reducing the consumption of ribbon is provided on print head 1 when printing on the bottom of a material. While the material is fed, the print head is lifted and the ribbon stopped.
- Print images remain continuous when cutting or perforating at no backfeed.
- Multiple print jobs can be printed seamless and without loss of labels.
- CSQ cutters and PSQ perforation cutters are provided.
- Please find full documentation on the Internet. DVDs are no longer part of delivery.
- A separator is integrated to the chassis. It reliably separates a ribbon from a continuous material and improves the accuracy of feeding.

Textile operations
pre-punched labels
and identification strips



Cable marking
shrink tubes continuous
and ready for use



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



Models



**Centered
guidance of
materials**



1.1 XD Q providing a tear-off plate

All materials wound on rolls or reels can be printed, so can fanfold ones.

Label printer		XD Q4/300	XD Q4/600
Print resolution	dpi	300	600
Print speed	mm/s max.	200	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, textile and synthetic materials can be cut, so can shrink tubes.

Label printer		XD Q4/ 300-C2	XD Q4/ 600-C2
Print resolution	dpi	300	600
Print speed	mm/s max.	200	100
Print width	mm max.	105.7	54.1
Width of a material	mm max.	114	114
Tray materials as long as	mm max.	100	100



1.3 XD Q providing a PSQ 403 perforation cutter

Continuous materials such as textiles or shrink tubes can be perforated, to separate by hand at a later stage. The materials can be cut as well.

Label printer		XD Q4/ 300-P3	XD Q4/ 600-P3
Print resolution	dpi	300	600
Print speed	mm/s max.	200	100
Print width	mm max.	105.7	54.1
Width of a material	mm max.	114	114
Tray materials as long as	mm max.	100	100

Technical data

● typical ■ standard □ option

Label printer			XD Q4/300	XD Q4/600
Guidance of materials			centered	centered
Print method	Thermal transfer		●	●
Print resolution	dpi		300	600
Print speed	mm/s max.		200	100
Print width	mm max.		105.7	54.1
Automated mechanics reducing the consumption of ribbon			●	●
Materials ¹⁾				
Paper, cardboard, synthetics PET, PE, PP, PI, PVC, PU, acrylate, Tyvec			●	
Shrink tube	ready for use		●	
	continuous, pressed		●	
Textile strip			●	
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	0.05 - 0.6	
Liner	Width	mm	14 - 114	
	Thickness	mm	0.05 - 0.16	
Continuous	Width	mm	4 - 114	
	Thickness	mm	0.05 - 0.5	
	Weight (cardboard)	g/m² max.	300	
Shrink tube	Width	ready for use mm max.	114	
	continuous, pressed mm		4 - 85	
	Thickness	mm max.	1.1	
Ribbon ²⁾	Color layer		outside or inside	
	Roll diameter	mm max.	80	
	Core diameter	mm	25.4	
	Length	m max.	600	
	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	
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	
1 USB host on the control panel		to plug	a service key, an USB stick, USB WLAN stick, USB Bluetooth adapter	
2 USB hosts on the back of a unit		to plug	a keyboard, barcode scanner, an USB stick, USB WLAN stick, USB WLAN stick with a rod antenna, USB Bluetooth adapter, external operation panel	
USB host, 24 VDC, to plug peripherals			■	
Digital I/O interface providing 8 inputs and 8 outputs			□	
Operating data				
Voltage			100 - 240 VAC, 50/60 Hz, PFC	
Consumption of power			< 10 W in standby / 100 W in typical operation	
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, cULus, CB, CCC	
under examination			CoC Mexico, EAC, BIS, BSMI, KC-Mark	
Control panel				
Color LCD	Diagonal	"	4.3	
touchscreen	Resolution width x height	px	272 x 480	

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

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		
	Data received Record datastream Pre-warning on ribbon ending SD memory card plugged USB stick plugged	Bluetooth WLAN Ethernet USB slave Time
Controls		
	Ribbon 1/2 - winding - pre-warning - ending End of material	Print head 1/2 - voltage - temperature - open Separator open Peripheral error
Test routines		
System diagnostics	upon startup, print head detection included	
Information display, test printout, analysis	Status printout Fonts list List of units WLAN status	Test grid Label profile List of events Monitor mode
Status reports	- Printout of print durations, running hours, etc. - Device status request 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
To be stored	TrueType	
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 Arabian
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 Code 39 Full ASCII Code 128 A, B, C EAN 8, 13 EAN/UCC 128/GS1-128 EAN/UPC Appendix 2 EAN/UPC Appendix 5 FIM HIBC	Interleaved 2/5 Ident and routing code of Deutsche Post Codabar JAN 8, 13 MSI Plessey Postnet 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 NiceLabel BarTender	
Stand-alone operation		■
Windows printer drivers certified WHQL for	Windows Vista Windows 7 Windows 8 Windows 8.1 Windows 10	Server 2008 Server 2008 R2 Server 2012 Server 2012 R2 Server 2016 Server 2019 ■
Apple printer drivers	for Mac OS X 10.6 or any later release	
Linux printer drivers	based on 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

OPC UA

All the latest cab printers have been designed ready to interact 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

Optional equipment

Parts or units to perform special functions can be assembled to a printer in addition to or instead of standards. If order implies equipment be assembled ex factory, the part numbers of such printers and options are added by .250. Separate deliveries are added by .001.



Slim print rollers

They allow for precise print images with slim materials and ribbons.

DR4-M30 with liner or continuous materials no more than 30 mm wide

DR4-M60 with liner or continuous materials no more than 60 mm wide

DR4-M80 with liner or continuous materials no more than 80 mm wide

Synthetic rubber coating for extra high print image accuracy



DRS4 print roller

with materials no more than 120 mm wide

Silicone coating for extra long life cycles, accepting higher tolerances in print image accuracy



Adapter 40/100

to pick up label rolls with a core diameter of 100 mm

One adapter is sufficient if processing material no more than 50 mm wide.



Digital I/O interface

Print jobs are triggered via a PLC, a sensor or a hand switch. Simultaneously, status and error reports are indicated.

Accessories

Equipment plugged or screwed to a printer by a customer

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 to extend the range of operation 2.4 GHz 802.11b/g/n + 5 GHz 802.11a/n/ac Hotspot mode or infrastructure mode
2.5		USB Bluetooth adapter
2.6		I/O interface plug, SUB-D, 25 pins All control signals are connected to the I/O interface using clamping screws.

Further accessories:

- CU400 cutter
- PCU400 perforation cutter

2.7		External control panel If the control panel of a printer cannot be accessed, an additional external one can be plugged. Same functionality as on a printer Landscape mode or portrait mode Operability as targeted, either on an external panel or on a printer
		USB 2.0 Hi-Speed device to connect a printer cab provides specified connecting USB cables for power supply. Lengths are 1.8 m to 16 m
2.8		Label selection - I/O box A maximum of 16 labels per box can be selected from a memory card by a superior control unit, such as a PLC. Two boxes may be plugged. Making use of an I/O box, four inputs and four outputs suffice for implementing PLC processes via abc programming.

Accessories

Equipment plugged or screwed to a printer by a customer

2.9



CSQ 402 cutter

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

PSQ 403 perforation cutter

Continuous materials such as textiles or shrink tubes can be perforated, to separate by hand at a later stage. The materials can be cut as well.

Tray

Label heights can be set, a maximum of 50 labels be collected.

2.10



Cutter		CSQ 402	PSQ 403
Material	Width mm max.	120	
	Weight (cardboard) gr/m² max.	300	
	Thickness mm max.	1.1	1.5
Perforation	Distance between off-cuts mm	-	2.5
	Width of off-cuts mm / quantity	-	0.4 / 6
Cutting length	mm at least	10	
Length of perforation	mm at least	-	3
Tray	materials as long as mm max.	100	
Material passage	mm max.	2.0	
Performance	cuts/min at use of material 1 mm high, no backfeed	200	
Controls		no final cutter position, cover off cutter	

2.11



ST400 M stacker including 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 including a cutter		ST400 M
Material	Width mm max.	20 - 100
	Weight (cardboard) gr/m² max.	60 - 300
	Thickness mm max.	0.05 - 0.8
Cutting length	mm at least	20 - 150
Material passage	mm max.	1.2
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, cover open, limit of collecting

2.12



External ER4 rewinder, power supply installed

It operates also with printers other than cab.

Label webs may be wound outside or inside.

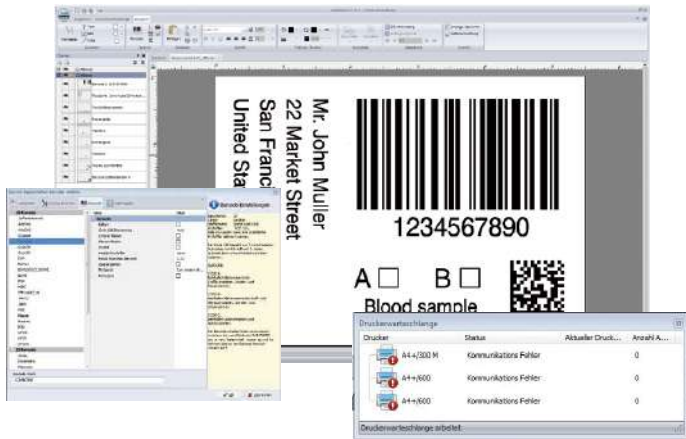
External rewinder		ER4/210	ER4/300
Width of a material	mm max.	120	
Roll diameter	mm max.	205	300
Tightening axle	core diameter mm	76	
Winding		outside or inside	
Voltage		100 - 240 V, 50/60 Hz	
X series kit to adapt			
ER4 to XD O			

2.13

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/cablabel/en

Printer control



Drivers

cab provides 32 / 64 bit drivers for controlling printers with software other than cablabel S3. Running the drivers requires operating systems Windows¹⁾ Vista, Mac OS X²⁾ 10.6 and Linux³⁾ CUPS 1.2 or any later releases.



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 PLCs.

Integration



Printer Vendor program

cab as a member of this program developed a replace method for controlling cab printers from SAP⁴⁾ 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.).

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 administration

Configuration on the Intranet and 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 diagrams. 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.

¹⁾ Windows is a registered trademark of Microsoft Corporation

²⁾ MAC OS X is a registered trademark of Apple Computer, Inc.

³⁾ SQUIX, MACH 4S, EOS, HERMES Q, AXON, PX Q units

⁴⁾ SAP and associated logos are trademarks or registered trademarks of SAP SE.

Delivery program





Label printers

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

Scope of delivery	
	Label printer Power cable type E+F, 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 certified WHQL 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 cablabel S3 Lite software cablabel S3 Viewer Database Connector
	https://setup.cab.de/en

Optional equipment

Pos.		Part no.	Designation
3.1		5953700.xxx	DR4-M30 print roller
		5953701.xxx	DR4-M60 print roller
		5953702.xxx	DR4-M80 print roller
3.2		5954985.xxx	DRS4 print roller
3.3		5959622.xxx	Adapter 40/100
3.4		5977767.xxx	Digital I/O interface



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

Accessories

Pos.		Part 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
2.5		5977732	USB Bluetooth adapter
2.6		5917651	I/O interface plug, SUB-D, 25 pins
2.7		6010186	External control panel
		5907718	Connecting USB cable, 1.8 m
		5907730	Connecting USB cable, 3 m
		5907750	Connecting USB cable, 5 m
		5907760	Connecting USB cable, 11 m
		5907765	Connecting USB cable, 16 m
2.8		5948205	Label selection - I/O box
2.9		5984565	CSQ 402 cutter
2.10		5984130	PSQ 403 perforation cutter
2.11		5541599	ST400 M stacker including a cutter
		55xxxxx	Support table, width x height of a label
2.12		5948100	External ER4/210 rewriter
		5946090	External ER4/300 rewriter
2.13		5965712	X series adapter kit

x - user-specific part no.
according to order

Wear parts

Pos.		Part no.	Designation
		5977385.001	Print head 2/600
		5987089.001	Print head 4/300
		5954180.001	DR4 print roller

Optional equipment are parts or units to perform special functions.
They can be assembled to a printer in addition to or instead of standards.
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of such printers and options are added by .250. Separate deliveries are added by .001.

Delivery program

Label software

Pos.	Part 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	*Instructions	Control panel	Windows driver	Service manual
European Union				
Bulgarian		X		
Danish		X	X	
German	X	X	X	X
Estonian		X		
Finnish		X	X	
French	X	X	X	
Greek		X		
English	X	X	X	X
Italian		X	X	
Croatian		X	X	
Latvian		X		
Lithuanian		X	X	
Dutch		X	X	
Polish		X	X	
Portuguese		X	X	
Romanian		X		
Swedish		X	X	
Slovak		X	X	
Slownian		X	X	
Spanish	X	X	X	
Czech		X	X	
Hungarian		X	X	
Europa (Non-EU)				
Norwegian		X	X	
Russian		X	X	
Serbian		X		
Turkish		X	X	
Asia				
Chinese, simplified		X	X	
Chinese, traditional		X	X	
Japanese			X	
Korean			X	
Thai		X	X	
Middle East				
Persian		X		
Hebrew			X	

*permanently complemented

Range 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



Label printers
XD Q - double-sided printing



Label printers
XC - two-color printing



Print and apply systems
HERMES Q



Print and apply systems
Hermes C - two-color labeling



Tube labeling systems
AXON



Print modules
PX Q



Labels, ribbons



Label software
cablabel S3



Label dispensers
HS, VS



Labeling heads
IXOR



Marking lasers
XENO 4



Laser marking systems



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Mexico
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Juárez
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Taiwan
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China
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Singapore
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