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# Label dispensers for industrial use

# ROXI Made in Germany Professional at best price

## **ROXI** label dispensers

Precise insert labeling Solid construction, perfect in every way Advanced electronics and software

## Small price – great performance A future-proof investment



## Compact and slim design

Easy to install into production lines

Any assembly

Vertical, horizontal, inclined, dispensing labels to the left or right

**High quality and reliability** Tried and tested functional modules assembled Made in Germany

**Durable and easy to maintain** Designed for continuous industrial use Free firmware updates via Ethernet or USB interface

#### **Dynamic speed control**

Label web is fed automatically by a masterencoder (rotary or linear) in accordance with the speed of items on a conveyor.

**Safety guaranteed** Certified by independently authorized testing labs

**Short setup times** Quick and simple material changeover

**Useful accessories** 

Columns, stands, connecting cables, and many others help with installation ready for use.

## **Operation panel**

## Intuitive and easy to operate Rotatable in steps of 180°, depending on the installation

## Unit configuration with the help of selfexplanatory symbols on the user interface



## Firmware

## Embedded Linux operating system



 Support 'out-of-the-box' of Open Source bundles and interfaces, such as FTP, SSL, Avahi/Zeroconf



Regular updates for hotfixes and official CVE security patches

Comprehensive release notes for each update

## Compatible with IXOR highspeed labeling head



Same codebase as IXOR

- New IXOR features are automatically included in ROXI.
- Identical firmware file for both units

## Maintenance and diagnostics

- Web Interface
- Event log for tracking activities
- Diagnostics documents in standardized XML text format

## Interfaces and user-specific features

	USB stick	Web Interface	FTP software
Access to entire documentation of a unit	$\checkmark$	$\checkmark$	$\checkmark$
Backup and restore	$\checkmark$	$\checkmark$	$\checkmark$
Configuration reading and import	$\checkmark$	$\checkmark$	$\checkmark$
Firmware update	$\checkmark$		$\checkmark$



## VNC LAN / WLAN

Remote control by a PC, smartphone, tablet



Feed path schemes On display

## Upgrades

 Protocols such as MQTT as well as features like the masterencoder can be unlocked by key (online purchase).

## **Remote support**

- Diagnostics by service staff, using an existing customer network
- Special software oscilloscope, maximum resolution 1 ms, for unlimited use during production

## Integral Ethernet protocols for higher-level machine control systems

• OPC UA

- MQTT, ModBus TCP,
- PC UA



- Profinet in preparation, available from Oct. 2025
  - Access via PLC and an industrial PC to parameters, I/O signals, error messages

## Redundancy

- Any number of pairs of label dispensers can be operated redundantly in an Ethernet network.
- While one dispenser actively applies labels onto items, another unit is on standby. In cases of a malfunction on an active unit (e.g. label web ending), the second one takes over immediately.
- It is ensured all items located between the units are labeled.

## Interfaces



Defined by user Analog inputs Speed Start delay Stop delay

Error reset

Unit ready Pre-dispense button pressed Stop label feed Label feed ON Label missing on liner End of label web Pre-warning to label web ending Error Defined by user

#### I/O status indication

Status display of all inputs and outputs

Helpful with initial setup, especially when integrating a label dispenser int o external control systems

Inputs and outputs can be simulated or forced for testing purposes.



#### PRINT & APPLY

Peripheral interface; Plugging a printer or controlling an applicator with power supply 24VDC, 2A

#### **1** STOP

Plugging a label sensor, optical or inductive detection



## Technical data

Label dispenser		Туре	ROXI 120	ROXI 180
Label web speed	m/n	nin max.	30	20
Installation			vertical / horizontal	
Direction to which la	bels are dispensed		L = to the left,	R = to the right
Material <sup>1)</sup>				
Label		on a roll	Paper, synthetics PET,	, PE, PP, PVC, booklets
	Width	mm	10 - 116	10 - 176
	Length	mm	10 - 6	5,000
	Gap mm	at least	2	2
	Thickness	mm	0.055	5 - 1.0
Liner	Width	mm	15 - 120	15 - 180
Roll	Weight	kg max.	1	2
Unwinder	Outside diamete	r mm	30	00
	Core diameter	mm	7	6
	Winding		outside	or inside
Rewinder	Outside diamete	r mm	210	
	Core diameter	mm	76	
Label sensor				
	Dete	ection of	label margins and	I materials ending
Distance to locating e	edge CEON	mm	9 - 62	9 - 94
	GAB 500-1	mm	7.5 -	17.5
	GAB 500-2	mm	8	3
Operating data				
Voltage				~, 50 - 60 Hz
Temperature / humio	dity O	peration		6, not condensing
		Stock		6, not condensing
	Ti	ansport	–25 - 60°C / 20 - 80	%, not condensing
Approvals			CE, FCC Cla	•
	in pre	paration	cULus, CB	
Protection class			IP 40	
Operation panel				
		LED	ON / OF	F, FEED
LCD graphic	cs display Width x He	ght mm	54 >	k 70
Control				
				eb ending, broken liner erature, voltage

<sup>1)</sup> Limitations can occur when processing small labels, thin materials or materials using a strong adhesive. Such applications require testing.





Demand module	Dimension C mm
SP	19
SPE	24
SPFA	19

Mounting rod	Dimension D mm
MS 25	25
MS 100	100
MS 200	200
MS 300	300
MS 400	400

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



## Demand units

## Modular adaptation in four steps

## **1. Demand module**

A label web can be inserted from the side. Individual parts and componental assemblies go with units L or R. This enables modules be configured as required.

## 2. Wipe-down roller or brush

Labels when attached insert are precisely applied onto items using a roller or a brush. These can be precisely tailored to an item for optimum labeling.

## 3. Mounting rods

They are inserted both into the profile of a demand module and the carrier profile of a label dispenser and fixed by screws.

## 4. Label sensors

Label positions are detected exactly, high repetition accuracy included

Simple assembly: inductive CEON sensor on the dispenser tongue Forked light barrier on a profile

## Demand modules

Head units consist of a **1** dispenser tongue, a **2** guide and an adjustable **3** carriage. They are the same for all all types.







2.4

## in preparation

SP demand modules

They are attached to the two mounting rods. The path of a label web can be aligned during labeling. Forked light barriers and CEON label sensors are fixed directly onto the demand module.

	<b>Dispenser tongue</b> Dimension B mm		which labels pensed
		Type left	Type right
SP demand module	62	SP 62L	SP 62R
	124	SP 124L	SP 124R
	186	SP 186L	SP 186R

#### SPE demand modules adjustable

For better operation or when space is limited, a label dispenser may be installed rotated in vertical direction. Applying labels then requires a dispenser tongue, continuously adjustable from -10° to 100°.

	<b>Dispenser tongue</b> Dimension B mm	Direction to are dis	which labels pensed
		Type left	Type right
SPE demand module	62	SPE 62L	SPE 62R
	124	SPE 124L	SPE 124R
	186	SPE 186L	SPE 186R

#### SPFA demand modules spring-forced, pivotable

When labeling insert onto curved surfaces, demand modules may adapt to the surfaces and heights of items by spring force. Adjustable pivoting heights are 10 mm to 80 mm

	<b>Dispenser tongue</b> Dimension B mm	Direction to are dis	which labels pensed
		Type left	Type right
SPFA demand module	62	SPFA 62L	SPFA 62R
	124	SPFA 124L	SPFA 124R
	186	SPFA 186L	SPFA 186R

#### **SPEA demand modules** electrically pivotable

A dispenser tongue can be pivoted electrically when dealing with sensitive surfaces or when labeling onto cylindrical items or into pockets. Pivotable heights are 10 mm to 20 mm

	<b>Dispenser tongue</b> Dimension B mm		which labels pensed
		Type left	Type right
SPEA demand module	62	SPEA 62L	SPEA 62R
	124	SPEA 124L	SPEA 124R
	186	SPEA 186L	SPEA 186R

#### ARE wipe-down rollers electrically pivotable

A wipe-down roller can be pivoted electrically when dealing with sensitive surfaces or when labeling onto cylindrical items or into pockets. Pivotable as high as 10 mm

	<b>Dispenser tongue</b> Dimension B mm	Direction to are dis	which labels pensed
		Type left	Type right
ARE wipe-down roller	62	ARE 62L	ARE 62R
	124	ARE 124L	ARE 124R
	186	ARE 186L	ARE 186R

2.5

## in preparation

## Wipe-down rollers and brushes

A roller and a brush can each be precisely tailored to an item during operation. They are attached by thumb screws and may be replaced without additional tools when worn.



## AR wipe-down rollers

Adjustments:

- 1. Distances of 8 mm to 30 mm to a peel-off plate
- 2. Lower end position to an item
- 3. Wipe-down force onto an item by spring preload
- 4. Roller positions screw-fixed on SPFA, SPEA demand modules

	Width B mm	Туре
	62	AR 62
AR wipe-down roller	124	AR 124
	186	AR 186



## AB wipe-down brushes

Adjustments:

- 1. Distances of 20 mm to 50 mm to a peel-off plate
- 2. Angles of 15° to 45° to a peel-off plate
- 3. Wipe-down force by vertical shift to an item

	Width B mm	Туре
	62	AB 62
AB wipe-down brush	124	AB 124
	186	AB 186

## Mounting rods



## MS mounting rods

Stainless steel, diameter 16 mm They are inserted both into the profile of a demand module and the carrier profile of a label dispenser and fixed by screws.

	Length L1 mm	Туре
MS mounting rod	25	MS 25
	100	MS 100
	200	MS 200
	300	MS 300
	400	MS 400

Further lengths upon request

Demand module	Dimension B mm	Distance A	Dimension A mm
SP	19	SPxx 62 demand module	104
SPE	24	SPxx 124 demand module	104
SPFA	19	SPxx 186 demand module	166

## Cross-section profiles



**Assembly** of IXOR peel-off plates and wipe-down rollers Dimension A is adjusted to B using a QP cross-section profile and MS 25 mounting rods.

	Dimen- sion A mm	Dimen- sion B mm	Dimen- sion C mm	<b>Profile</b> Type	<b>Mounting rod</b> Type
Peel-off plate 62	104	146	186	QP 186	MS 25
Peel-off plate 124	104	146	186	QP 186	MS 25
Peel-off plate 186	166	208	248	QP 248	MS 25



A third MS mounting rod and further QP cross-section profiles may be added for reinforcing long mounting rods or attaching accessories.

	<b>Dimension A</b>	<b>Dimension B</b>	<b>Dimension C</b>	Туре
	mm	mm	mm	
OD profile	104	146	186	QP 186
QP profile	186	208	248	QP 248

Length of mounting rod as required

## Sensors

A GAB 500-1 forked light barrier and a CEON label sensor both link to a label dispenser via an intelligent communication interface. There is automatic teach on the operation panel. It takes no more than two labels to finish calibration.



# 2.11



## CEON label sensor, retainer bars included

A ceramic probe is used to inductively detect the difference in height from a liner to the top of a label.

For sensor accommodation, a retainer bar is attached in conjunction with a spacer precisely and torsion-proof to a dispenser tongue. Three lengths are included on delivery.

		CEON label sensor
Functional metho	d	inductive, using a ceramic probe
Material Label		Paper, synthetics, opaque or transparent
Liner		opaque, transmissive or transparent
Label thickness	mm	0.05 - 1.0
Label gap	mm	>2
Repetition accurate	cy mm	± 0.05
Range of	CEON 31 mm	9 - 31
adjustable distance to the	CEON 62 mm	9 - 62
locating edge	CEON 93 mm	9 - 94
Round label diameter mm max.		180

## **GAB 500-1 forked light barrier** in preparation Attached directly to the head unit of a demand module

		GAB 500-1 forked light barrier
Functional method		optical, transmitter receiver
Material Label		Paper, synthetics, opaque
Liner		transmissive, transparent
Label thickness	mm	0.05 - 1.0
Label gap	mm	>2
Repetition accuracy	mm	± 0.05
Range of adjustable di	stance	
to the locating edge	mm	7.5 - 17.5
Round label diameter	mm max.	35

## GAB 500-2 forked light barrier

Attached directly to a ROXI chassis

		GAB 500-2 forked light barrier
Functional method		optical, transmitter receiver
Material Label		Paper, synthetics, opaque
Liner		transmissive, transparent
Label thickness	mm	0.05 - 1.0
Label gap	mm	>2
Repetition accuracy	mm	± 0.05
Range of adjustable di to the locating edge	stance mm	8.0
Round label diameter		16

## Accessories



#### **Product sensor**

Applying a label is triggered as soon as an item has been detected. 200 mm maximum detectable track

Connecting cable M12-M8 included, 5 pins, a-coded, 2.5 m

#### Cable plug M12, 5 pins, a-coded, male

It enables configuring the connecting cable with a product sensor yourself.

## **Rotary encoder**

Incremental, resolution 0.1 mm Connecting cable M12, 5 pins, a-coded, 2,5 m, tracked A and B for automatically synchronizing the speed of labeling Unlocked by key

#### **Friction wheel** Circumference 200 mm, diameter 63.7 mm

Retainer It presses a friction wheel by spring force onto a conveyor. Assembly to a conveyor requires a mounting bracket.

#### I/O interface cable, wire-end-ferruled M12, 17 pins, 5 m

#### Warning light Plug to a label dispenser

Red Collective error, e.g. end of label web, label web torn Yellow Pre-warning to label web ending Green Unit ready

Connecting USB cable included, 1 m

**External operation panel** Same functionality as on a label dispenser

Users are free to decide whether to operate an external panel or the one integral to a dispenser unit.

- **USB slot**, for configuration or firmware transfer
- 2 LED: Power ON

**Connecting USB cable** Lengths are 1.8 m, 3 m, 5 m (11m, 16 m upon request)

## Assembly assistance

Label dispensers may be installed user-specific into production lines or labeling systems. Retainers, a column stand and a floor stand make up a construction kit.



## **Unit retainers**

ROXI

Mounted on two columns, a label dispenser may be installed in vertical or horizontal direction.

The upper column is attached to the tie rod, the lower one along with a bearing bush to a plate, a profile or a column stand. Swivel-mounted, the tie rod is fixed by a clamping screw.

Both columns may also be attached directly to a plate or a profile. At this, the dispensing angle (inclination) is not adjustable.



Dispensing angles are set by a tie rod. In addition, the spot of dispensing a label can be aligned on the columns.

4.3



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## Stands

## Column stand 600

Assembly of a label dispenser to a base plate or a conveyor Position setting using a hand crank

Column stand		600	400
Column length	mm	600	400
Adjustable track	mm	395	195
Column diameter	mm	30	30

## Floor stand 1632

Primarily suggested when **applying labels from the top** A mobile assistance, it can be locked and set on-site by leveling feet

		Floor stand 1632
Leveling feet	adjustable by mm	± 15
Load	kg max.	50
Load at offset 300 mm	kg max.	25
Distance from lower margin	of a label to the floor mm	880 - 1,200
Column stand 600	mm	
Column length	mm	600
Adjustable track	mm	395
Weight	kg approx.	40



4.6



Floor stand 1231

primarily for **labeling from the side** on a product. It is adjustable in height and can be locked and set with the help of leveling feet on site.

		Floor stand 1231
Leveling feet, adjustability	mm	± 15
Load	up to kg	50
Load at protrusion 200 mm	up to kg	20
Distance from lower label margin to the floor	mm	664 - 904
Floor stand 600		
Column length	mm	600
Adjustable track	mm	395
Dispensing angle		
Unit retainer fine adjustable		
Adjustable area	mm	135
Weight a	pprox. kg	40

4.7



# Delivery program

## Label dispensers

## Labels provided to the left

Pos.		ltem no.	Designation	
1.1		6130120	ROXI label dispenser	120 L
1.2	0.0	6130180	ROXI label dispenser	180 L

xxxxxxx.250 additional software unlocked GAB 500-2 forked light barrier installed

Scope of delivery
ROXI label dispenser Knowledge Base

Label dispensers with demand units are delivered unassembled in one package.



## **Provided online**

Assembly instructions DE / EN / FR Configuration manuals DE / EN / FR Service manuals DE / EN Spare parts lists DE / EN Programming manual EN

## **Additional software**

## Labels provided to the left or right

If order implies additional software been unlocked ex-factory, item numbers are added by .250. In cases of separate delivery, .001 is added.

Pos.	Item no.	Designation
		FQ MQTT
1.3	5581022.xxx	FM ModBus
1.3	5581022.XXX	FP Profinet (in preparation)
		FO OPC UA Server
1.4	5581023.xxx	FR MQTT redundancy
1.5	5581020.xxx	ME Masterencoder

xxxxxxx.250 label dispenser, additional software unlocked



See current data also on the Internet: www.cab.de/en/roxi

## Labels provided to the right

Pos.		ltem no.	Designation	
1.1	0	6130125	ROXI label dispenser	120 R
1.2		6130185	ROXI label dispenser	180 R

xxxxxxx.250 additional software unlocked GAB 500-2 forked light barrier installed

## Delivery program

## **Demand units**

If order implies components of demand units been assembled ex-factory, item numbers are added by .250. In cases of separate delivery, .001 is added.

## Labels provided to the left

Pos.		Item no.	Designation
2.1		6130466.xxx	SP 62L demand module
		6130296.xxx	SP 124L demand module
		6130297.xxx	SP 186L demand module
		6130467.xxx	SPE 62L demand module
2.2	-	6130484.xxx	SPE 124L demand module
		6130485.xxx	SPE 186L demand module
		6130468.xxx	SPFA 62L demand module
2.3		6130304.xxx	SPFA 124L demand module
		6130553.xxx	SPFA 186L demand module
	in preparation	6130478.xxx	SPEA 62L demand module
2.4		6130479.xxx	SPEA 124L demand module
		6130555.xxx	SPEA 186L demand module
2.5	in preparation	6130531.xxx	ARE 62L wipe-down roller
		6130532.xxx	ARE 124L wipe-down roller
		6130533.xxx	ARE 186L wipe-down roller

## Labels provided to the right

Pos.		Item no.	Designation
2.1	No.	6130469.xxx	SP 62R demand module
		6130306.xxx	SP 124R demand module
		6130307.xxx	SP 186R demand module
		6130476.xxx	SPE 62R demand module
2.2	10000	6130486.xxx	SPE 124R demand module
		6130487.xxx	SPE 186R demand module
	and the second	6130477.xxx	SPFA 62R demand module
2.3		6130310.xxx	SPFA 124R demand module
		6130554.xxx	SPFA 186R demand module
	in preparation	6130481.xxx	SPEA 62R demand module
2.4		6130482.xxx	SPEA 124R demand module
		6130556.xxx	SPEA 186R demand module
	in preparation	6130536.xxx	ARE 62R wipe-down roller
2.5		6130537.xxx	ARE 124R wipe-down roller
		6130538.xxx	ARE 186R wipe-down roller

## Labels provided to the left or right

250	6130460.xxx	AR 62 wipe-down roller	
2.6	6130461.xxx	AR 124 wipe-down roller	
	6130462.xxx	AR 186 wipe-down roller	
	6130463.xxx	AB 62 wipe-down brush	
2.7	6130464.xxx	AB 124 wipe-down brush	
	6130551.xxx	AB 186 wipe-down brush	
-	6120069.xxx	MS 25 mounting rod	
	5972418.xxx	MS 100 mounting rod	
2.8	5972419.xxx	MS 200 mounting rod	
	5972420.xxx	MS 300 mounting rod	
	6120067.xxx	MS 400 mounting rod	
2.0	6130520.xxx	QP 186 cross-section profile	
2.9	6130521.xxx	QP 248 cross-section profile	

2.10	6130291.xxx	CEON label sensor, retainer bars included
2.11	6130452.xxx	GAB 500-1 forked light barrier

xxxxxxx.250 demand module assembled .001 individually packed resp. spare part



xxxxxxx.250 demand module assembled .001 individually packed resp. spare part

## **Wear parts**

Pos.		ltem no.	Designation	
	25.40	6130560.001	Wipe-down roller 62	
2.13		6130557.001	Wipe-down roller 124	
		6130563.001	Wipe-down roller 186	
	A	6130572.001	Wipe-down brush 62	
2.14	<b>A</b>	6130580.001	Wipe-down brush 124	
		6130573.001	Wipe-down brush 186	
2.15		5983437.001	CEON probe	

# Delivery program

## Accessories

Pos.		ltem no.	Designation
3.1	) ()	6130294	Product sensor 200 mm maximum detectable track, connecting cable 2.5 m included
3.2		5918479	Cable plug M12, 5 pins, a-coded, male
3.3	9	5918979.850	Rotary encoder, connecting cable 2.5 m included
3.4		5918981.850	Friction whee
3.5		5918980.850	Retainer
3.6	O	5918948.850	I/O interface cable, wire-end-ferruled, M12, 17 pins, 5 m
3.7		6010560	Warning light, connecting USB cable 1 m included
3.8	1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1	6010186	External operation panel
		5907718.850	Connecting USB cable, 1.8 m
3.9		5907730.850	Connecting USB cable, 3 m
		5907750.850	Connecting USB cable, 5 m

## Assembly assistance

Pos.		Item no.	Designation
4.1		6130424.850	Unit retainer 120 fixed
7.1		6130425.850	Unit retainer 180 fixed
4.2		5983409.850	Unit retainer 120 moveable
4.2		5983410.850	Unit retainer 180 moveable
4.3		5983413.850	Unit retainer 120 fine adjustable
4.3		5983414.850	Unit retainer 180 fine adjustable
4.4	l	5971614.850	Tie rod
4.5	Ť.	5983421.850	Column stand 600
4.0		5983420.850	Column stand 400
4.6	- d	5983425	Floor stand 1632, column stand 600 included
4.7		5983426	Floor stand 1231

## Overview of cab products

Label printers Label printers Label printers Label printers MACH1, MACH2 EOS 2 EOS 5 MACH 4S Label printers Label printers Label printers Label printers SQUIX 2 SQUIX 6.3 SQUIX 8.3 **SQUIX 4** Label printers Label printers Print and apply systems Print and apply systems HERMES Q XD Q double-sided XC two-colored Hermes C two-colored Tube labeling systems Print modules Labels and ribbons Label software AXON 1 PX Q cablabel S3 Label dispensers Labeling heads Marking lasers Laser marking systems HS, VS IXOR XENO 4 XENDI



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