BBC BIRCHER
Smart Access

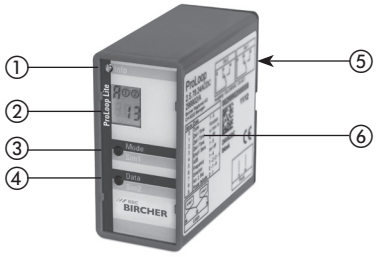
ENGLISH

ProLoop Lite 1.S

Loop detector for industrial doors and gates and car parks

Original instructions

General



① Info LED
② LCD display
③ "Mode" key
④ "Data" key
⑤ Plug-in connection, 11-pin
⑥ Type plate

1 Safety instructions

⚠
- These devices and their accessories may only be operated in accordance with the operating instructions (intended use).
- These devices and their accessories may only be placed in operation by trained and qualified personnel.
- These devices may only be operated with the operating voltages and parameters intended for them.
- If malfunctions occur that cannot be eliminated, place the device out of operation and send it in for repair.
- These devices may only be repaired by the manufacturer. Tampering and alterations are not permitted. This will invalidate all guarantee and warranty claims.

2 Mechanical mounting in the switch cabinet

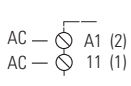
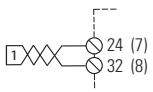
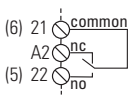
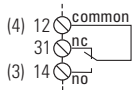
The 11-pin version of the ProLoop Lite is mounted onto a mounting rail base (ES 12). This base is ordered and delivered separately as it is not included in the scope of delivery.

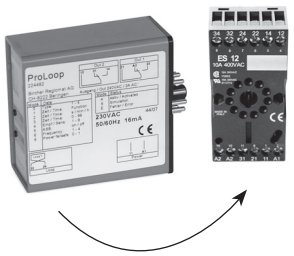
3 Electrical connection

ⓘ The loop connection wiring to the loop detector must be twisted at least 20 times per meter.
Please wire the device in accordance with the terminal assignment. Make sure the terminals are assigned correctly.

3.1 Terminal connection diagram, ES 12 base assignment

Check the electrical connection (base assignment) when exchanging a loop detector from another manufacturer.

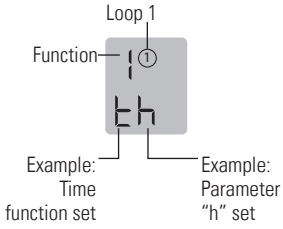
A: Supply voltage connection	B: Loop connection	D: Relay connection output 1	E: Relay connection output 2
			



4 Value and parameter setting options

4.1 Value and parameter setting options

Standard display 1-loop device	Control button	Control button
		

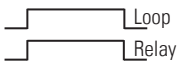
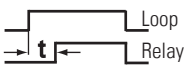
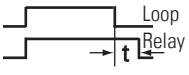
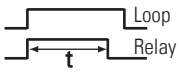
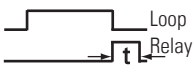
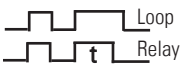
Explanation of the LCD display


Explanation of the LEDs	
Info	
Red + Green	Start-up phase configuration
Green	**Operation**
Green **flashing**	Output 1 or / and 2 **activated**
Flashing red	Error

4.2 Basic functions of output relay status *0* (setting, see table 4.8)

Parameter		**Loop unactivated**	**Loop activated**	**Fault**
1	Door and gate			
2	Barrier			
3	Quiescent current			

4.3 Time functions *1*, time unit *2* and time factor *3* (settings, see table 4.8)

Activation of the loop pulls the relay on; the relay drops off when the loop is exited.	 t = typically ms or s	**Switch-on delay:** When the loop is activated, the relay is pulled on after the time **t** and drops off when the loop is exited.	 t = typically ms or s	**Switch-off delay:** When the loop is activated, the relay is pulled on drops off after time t **t** after the loop is exited.	 t = typically ms or s
Activation pulse: When the loop is activated, the relay is pulled on and drops back off after time **t**.	 t = typically ms or s	**Exit pulse:** When the loop is exited, the relay is pulled on and drops back off after time **t**.	 t = typically ms or s	**Maximum presence:** When the loop is activated, the relay is pulled on and drops back off when exited, but not later than after time **t**.	 t = typically ms or s

4.4 Sensitivity *4* (setting, see table 4.8)

The sensitivity *5* of the loop detector can be adjusted in 9 steps:

51 = lowest sensitivity (→ much metal, low recognition distance)	*59* = highest sensitivity (→ little metal, large recognition distance)	*54* = factory setting

4.5 Automatic sensitivity boost ASB *5* (setting, see table 4.8)

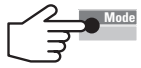
ASB (= **A**utomatic **S**ensitivity **B**oost).
ASB is required in order to be able to detect trailer drawbars after activation.

4.6 Frequency *6* (setting, see table 4.8)

Four different frequencies F1, F2, F3 and F4 can be set. This helps to prevent crosstalk with adjacent loops. Factory setting: F4.

4.7 Switching from operating to configuration mode

1-loop device

Display after start-up:		Touch the «Mode» button once to change to configuration mode		

(Back to automatic mode: Press and hold Mode button > 1 second)

Table Settings

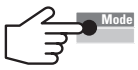
Function		LCD Display	Button operation functions	Button operation parameter	Data → Data → Data → Data → Data → Data → Data					
A	Operating mode	A 11	Mode		Operating mode A 11					
0	Basic function	0 1	Mode		Door and gate* 0 1	Barrier 0 2	Quiescent current 0 3			
1	Time function	1 th	Mode		∞* Loop / Relay	Switch-on delay 1 to	Switch-off delay 1 tF	Loop activation pulse 1 t-	Loop exit pulse 1 t¬	Maximum presence 1 tP
2	Time unit	2 tC	Mode	With time function **th** (∞), this display does not appear	0.1 second 2 tc	1 second* 2 tC	1 minute 2 tn	1 hour 2 th	**Note:** Time unit multiplied by time factor gives the set time.	
3	Time factor	3 C 1	Mode	With time function **th**(∞), this display does not appear	1 * 3 C 1	Set value between 1 and 99 by touching or holding the «Data» button				
4	Sensitivity	4 S4	Mode	5 Sensitivity = responsiveness	4 * 4 S4	Set value between 1 (lowest) and 9 (highest sensitivity) by touching or holding the “Data” button				
5	Automatic sensitivity boost ASB	5 A0	Mode	**ASB** stands for **A**utomatic **S**ensitivity **B**oost	Switched off* 5 A0	Switched on 5 A1				
6	Frequency	6 F4	Mode		Frequency F1 6 F1	Frequency F2 6 F2	Frequency F3 6 F3	Frequency F4* 6 F4		

*Factory setting

5 Error display

When an error occurs, the operating mode “A” and the error display “E” are shown alternatingly.
The LED changes to flashing red.

6 Reset

 2 seconds	**Reset 1 (recalibration)** The loop(s) is/are recalibrated.

7 Technical data

Power supply voltage/ power consumption	**24 VDC** 24 VDC -10% to +20%, 84 mA, max. 1.3 W **230 VAC** 230 VAC ±10%, 50 Hz, 16 mA, max. 3.7 VA
Loop inductiveness	Max. 20 to 1000 µH Ideally 80 to 300 µH
Loop power line	For 20-40 µH: max. 100 m with 1.5 mm^2 For >40 µH max. 200 m with 1.5 mm^2 Min. twisting 20 times per meter
Loop resistance	< 8 ohms with connection wire
Output relay (loop)	Max. 240 VAC; 2 A / 30 VDC; 1 A; AC-1

Dimensions	36 x 74 x 88 mm (W x H x D)
Housing mounting	Mounting rail installation via 11-pin base ES12
Connection type	Screw terminals base ES12
Protection class	IP20
Operating temperature	-20°C to +60°C
Storage temperature	-40°C to +70°C
Air humidity	< 95% non-condensing

8 EC Declaration of Conformity

CE See attachment

9 WEEE

Devices with this symbol must be treated separately during disposal. This must be done in accordance with the laws of the respective countries for environmentally sound disposal, processing and recycling of electrical and electronic equipment.

10 Contact

BBC Bircher Smart Access, BBC Bircher AG, Wiesengasse 20, CH-8222 Beringen, www.bircher.com

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