BBC BIRCHER
Smart Access

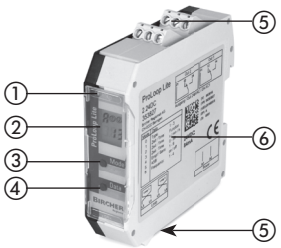
ENGLISH

ProLoop Lite

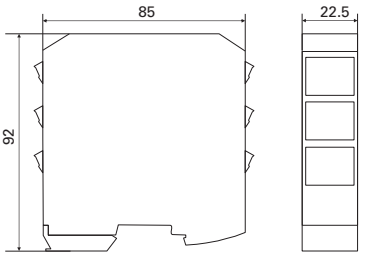
Loop detector for industrial doors and gates and car parks

Translation of the original instruction

General



① Information – light emitting diode
② LCD display
③ "Mode" key
④ "Data" key
⑤ Connecting terminals
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 ProLoop Lite is mounted in the switch cabinet on a 35 mm H-rail in accordance with EN 50022. The terminals can be plugged in and coded.

3 Connect electrical equipment

ⓘ The loop connection wiring to a loop detector must be twisted at least 20 times per meter.
Please wire the device according to the wiring diagram.
Ensure correct assignment of the terminals and that the power supply is right in accordance with the type plate on the device.

3.1 Terminal connection diagram

Power supply	Loop connection 1-channel device	Loop connection 2-channel device	Output 1	Output 2
~/+ A1 ~/- A2	L3 L4	1 L3 L4 2 L5 L6	11 common 12 nc 14 no	21 common 22 nc 24 no

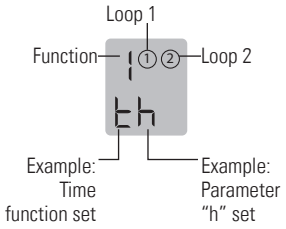
4 Value and parameter setting options

General
The settings of the ProLoop Lite devices in this chapter are depicted and explained using the 1-loop device.
The settings for loop 2 of a 2-loop device should be made using the corresponding method.

4.1 Value and parameter setting options

Standard display 1-loop device	Standard display 2-loop device
	

Explanation of the LCD display

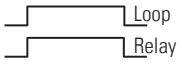
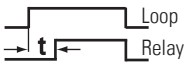
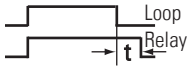
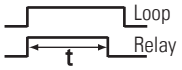
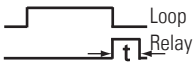
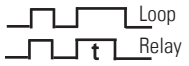


Explanation of the LEDs	
Info	
Red + Green	Start-up phase configuration
Green	**Operation**
Green **flashing**	Output 1 or / and 2 **activated**
Flashing red	Error

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)

h **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 *S* of the loop detector can be adjusted in 9 steps:

S1 = lowest sensitivity (→ much metal, low recognition distance)	*S9* = highest sensitivity (→ little metal, large recognition distance)	*S4* = factory setting

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

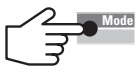
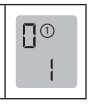
ASB (= **A**utomatic **S**ensitivity **B**oost).
ASB is required in order to be able to detect trailer drawbars after activation.

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

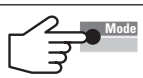
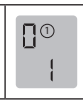
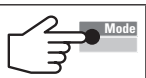
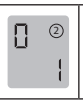
Four different frequencies F1, F2, F3 and F4 can be set. This helps to prevent crosstalk with adjacent loops. Factory setting: F4.

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		

2-loop device

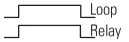
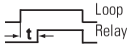
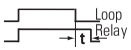
Display after start-up:		Touch the «Mode» button once to change to configuration mode			① Loop 1 is selected			② Loop 2 is selected

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

4.8 Configuration mode

Note on 2-loop device: For each function after Loop 1 is set, the parameters of Loop 2 are set (perform settings similarly).

Table Settings

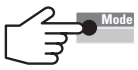
Function	LCD Display	Button operation functions	Button operation parameter	Data → Data → Data → Data → Data → Data → Data					
A Operating mode	A 11	Mode		Operating mode A 11					
0 Basic function	0 1	Mode		Door and gate* 0 1	Barrier 0 2	Quiescent current 0 3			
1 Time function	1 th	Mode		∞* 	Switch-on 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 54	Mode	5 Sensitivity = responsiveness	4 * 4 54	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%, max. 1.5 W **230 VAC** 230 VAC ±10%, 50 Hz, max. 2.9 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 metre
Loop resistance	< 8 ohms with connection wire
Output relay (loop)	Max. 240 VAC; 2 A / 30 VDC; 1 A; AC-1

Dimensions	22.5 x 92 x 85 mm (W x H x D)
Housing mounting	Direct DIN rail mounting
Connection type	Screw-in terminals
Protection class	IP 20
Operating temperature	-20°C to +60°C
Storage temperature	-40°C to +70°C
Air humidity	< 95% non-condensing

8 EU 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

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