

## Concise Instructions for Installation and Start-up



These concise instructions contain the basic settings (factory presets) as well as all error codes. For a detailed description of the settings and options of this device, refer to the corresponding chapters of the original operating instructions, which can be downloaded from [www.faac.co.uk](http://www.faac.co.uk) or ordered from us as a hardcopy.



The loop must be in a non-activated condition during adjustment and start-up of ProLoop!  
Before making the first adjustment or starting up the device, make sure the device is wired correctly!  
Note down the adjustments you make to the device on the label that is attached to it!

### Safety instructions



These devices may only be operated in compliance with the original operating instructions or the concise instructions (intended use)!

These devices may only be commissioned by trained and qualified personnel!

These devices may only be operated with the intended operating voltages and parameters!

If malfunctions occur (error E201) that cannot be rectified, shut down the device and send it in for repair!

### Mounting and electrical connection

ProLoop (DIN version) is mounted directly onto a standardized 35-mm mounting rail! The terminals for all connections are coded pluggable terminals.

Please wire the device in accordance with the terminal assignment! Make sure the terminals are assigned correctly.

### Terminal assignment (loop connections must be twisted at least 20 times per meter!)

Version	Operating voltage	Loop connection 1-channel device	Loop connection 2-channel device	Alerting (option)	Output	2nd output
ProLoop mounting rail installation	Supply voltage +/-	Loop	Loop 1+2	Alarm (optional) 	Output 1 	Output 2 

### ProLoop programming mode

«Mode» button →



→ Programming buttons

«Data» button →



ProLoop display after start-up (example for two loop device)



Display example for one loop device



If you have a 2 relay ProLoop device, each relay can be changed independently

#### Basic functions 0



Press «Mode» shortly:  
Programming of basic functions

Press the «Data» button:

1 → Industrial door

2 → Barrier systems

3 → Quiescent current (relay drops out when loop is activated)

4 → Direction logic (2-loop device only)

0 → Deactivate 2nd loop and 2nd output (only 2 Loop device)

#### Time functions 1



Press «Mode» shortly:  
Programming of time functions

Press the «Data» button:

h\* → Time function ∞

o → Time function «On delay»

F → Time function

«Off delay»

J → Time function «Pulse when loop is activated»

7 → Time function «Pulse » when loop is exited»

#### Time unit 2



Press «Mode» shortly:  
Programming of time unit

Press the «Data» button:

c → 0.1 second

C\* → 1.0 second

n → 1.0 minute

h → 1.0 hour



This display does not appear if time function set is «h»!

#### Time factor 3



Press «Mode» shortly:  
Programming of time factor

Press the «Data» button:

t → 1-99/1\* time factor



This display does not appear if time function set is «h»!

#### Sensitivity 4



Press «Mode» shortly:  
Setting for loop 1 sensitivity

Press the «Data» button:

Sensitivity (5 = Sensitivity)

→ 51-59 sensitivity (56\* (applies similarly to loop 2).

#### Automatic sensitivity boost 5



Press «Mode» shortly:  
Programming of ASB = Automatic Sensitivity Boost

Press the «Data» button:

A → 1-0/0\* ASB

(Example: Detection of drawbars)

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## ProLoop programming mode (continued)

## Frequency 5



Press «Mode» shortly:  
Programming of frequency

Press the «Data» button:  
F → 1-4\* Frequency

For inductances < 150 µH only F2, F3, F4, < 75µH only F4

## Direction logic 7



Press «Mode» shortly:  
Programming of  
direction logic

This display appears only when basic function Direction logic «— —» is set and 2 channels are available!

Press the «Data» button:

- d — Direction loop 1 to 2
- d — Direction loop 2 to 1
- d — Both directions

## 2nd output 8



Press «Mode» shortly:  
Switching of 2nd output

Press the «Data» button:  
→ 1 = activate  
0 = deactivate  
2nd relay

Options to use  
second relay

ProLoop  
1 loop, 2 relays

ProLoop  
2 loops, 2 relays,  
1 loop deactivated

standard

second relay  
activated

second relay  
deactivated

Switching of 2nd output  
possibilities by pressing «Data»

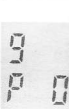
relay deactivated  
relay activated

relay activated  
relay deactivated

Remarks

Deactivation of the second loop deactivates the second relay

## No-volt protection 9

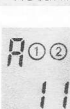


Press «Mode» shortly:  
Programming of  
no-volt protection

The sensitivity is restricted to 1–5, time factor = h!  
Basic function 2 Barrier systems must be set!

Press the «Data» button:  
9 → 1-0/0\* Memory function  
after  
power failure

## Return to operating mode A



Press «Mode» for 2 seconds:  
Return to operating mode

Depending on the programming/setting, the display can also display other data. In any case, the uppercase letter «A» must be displayed in the LCD display for the operating mode!

## ProLoop simulation mode

«Sim1» button →



**Simulation  
buttons!**

«Sim2» button →



Simulation mode:  
Switch simulation modes:  
Exit simulation mode:

Press the «Sim1» + «Sim2» buttons simultaneously for 2 seconds!

Press «Sim1» shortly!

Press «Sim2» for 2 seconds!



Simulation display ①  
Activation of loop 1  
Output 1 with time function



Simulation display ⑤  
Activation of alarm output  
Switch-off of alarm relay



Simulation display ②  
Activation of loop 1  
Output 2 with time function



Simulation display ⑥  
Activation of alarm output  
Switch-on of alarm relay



Simulation display ③  
Activation of loop 1  
Output 1 without time function



Display ⑦  
Inductance of loop 1



Simulation display ④  
Activation of loop 1  
Output 2 without time function



Display ⑧  
Inductance of loop 2



Display ⑨  
Activation of loop 2  
Output 1 with time function



Display ⑩  
Activation of loop 2  
Output 2 without time function

## Simulation mode:

Notes regarding simulation mode:

The displays apply similarly to the 2nd loop

(see also displays ⑨ and ? as examples)!

The activation of the loops can only be simulated if loops are connected to the appropriate terminal!

## Error displays

If an error occurs, operating modes A and E light up alternately and an error code such as E 012 is displayed. The LED turns red and flashes. The 5 most recent errors are displayed and can be interrogated.

Display	E001	E002	E011	E012	E101	E201	E301	E302	E311	E312
Error	Interruption, loop 1	Interruption, loop 2	Short-circuit, loop 1	Short-circuit, loop 2	Under-voltage	EPROM error	Loop 1 too large	Loop 2 too large	Loop 1 too small	Loop 2 too small



Briefly pressing the «Data» button shows the last of 5 errors on the display.

Another short press switches to the error before that, and so on. When the button is pressed for the 6th time, the device switches back to automatic mode. If you press the Data button for 2 seconds during interrogation, all error messages are deleted.

## Most important technical data

	DIN-housing
Operating voltage	24 VAC, DC, 84 mA 94-240 VAC, 50/60Hz, 12-23 mA
Power consumption	max. 2 VA
Loop inductance	max. 40-1000 µH, ideally 80-300 µH

	DIN-housing
Loop connection wiring	max. 100 m 1,5 mm <sup>2</sup> min. 20x/m twisted
Loop resistance	< 8 ohm with connection wire
Output relay (loop)	240 VAC/2 A AC1
Output relay (alarm)	40 VAC, 0.3 A, AC1
Dimensions	94 x 91 x 22.5 mm

\* Factory setting

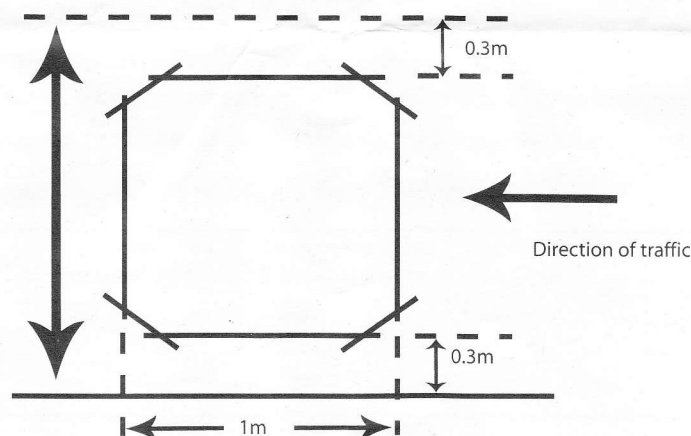
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### Example

#### Installation

Correct installation of the sensing loop will give optimum detection performance. The sensing loop is to be installed in the surface of the carriageway at the point of desired detection. This is performed by slot cutting the carriageway surface of width 0.5mm greater than the diameter of sensing loop cable to be used and a depth of  $n \times \text{cable diameter (in mm)} + 25\text{mm}$  minimum (where  $n$  is the number of turns 2, 3 or 4 which is dependent on the circumference of the sensing loop). The slots should be cut to the guidelines indicated below.

Cutting the corners of the rectangle at  $45^\circ$  helps to meet the minimum bend radius limits for the cable used. The cable from the detector to the sensing loop (feeder) should be twisted at a rate exceeding 25 turns per metre. The feeder length should not exceed 75m.



The sensing loop consists of  $n$  turns of cable indicated as follows:

Sensing loop circumference (m)	Number or turns (n)
3	8
4	6
5	5
6	4
7	3
8	3
9	3
10	2

The theoretical ideal is 24 meters of cable in the sensing loop.

The cut slot should be back filled with quick-set epoxy or hot bitumen mastic. If a second sensing loop is to be installed in the same carriageway then the separation of adjacent edges is to be a minimum of 2m for adjacent edges of lengths up to 2.5m and an extra 0.5m separation for each additional 1m length thereafter. Care should be taken not to trap water in the slot during back filling as this may lead to unstable detection performance.

#### Example

To set detector as free exit loop for barrier with 2 second pulse on entry with medium low frequency and medium sensitivity.

1. Press mode button for 1 sec and select function 0
2. Press data and select no. 2 (barrier systems)
3. Press mode button and select function 1
4. Press data button and select pulse on entry (J)
5. Press mode and select function 2
6. Press data button and select 1 second (c)
7. Press mode and select function 3
8. Press data and select time factor 2 (2x1sec)
9. Press mode and select function 4
10. Press data and select sensitivity (S6)
11. Press mode button twice and select function 6
12. Press data button and select frequency 2 (med low)
13. Press mode button 4 times to exit programming

#### Contact:

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