

RACS

R o g e r A c c e s s C o n t r o l S y s t e m

Identification Terminals
PRT31, PRT21, PRT22, PRT23 and PRT11
Ver. 2.0

Installation and user manual



INTRODUCTION

PRT terminals operate as auxiliary remote identification devices together with PRxx1 access controllers. PRT terminal is connected to PR controller through one pair of wires (DATA and CLOCK lines) which may be up to 150 meters long. Terminals are usually installed where controller must be located in safe, protected area or when entry has to be controlled on both sides of the door. Users can be identified directly on the controller as well as on terminal but all the logic functions are performed by controller, terminal reads card or PIN-code then sends data to controller.

Notes:

1. The PR301 and PR201 can operate with only one access terminal PRT with ID=0.
2. The PR301 and PR201 can not be programmed from terminal.
3. The PR401 controller can operate with two PRT terminals, one with ID=0 and second with ID=1.
4. The PR401 controller can be programmed manually from terminal with ID=1.

LED INDICATORS AND SOUND SIGNALISATION

Normally terminal LED and buzzer are controlled by PR controller but there are two exceptions listed in table below:

LED ON/OFF	LED OPEN	LED SYSTEM	Interpretation.
★	★	★	Terminal lost communication with controller, additional single beep is periodically (every 6sec.) generated.
○	○	○	Controller is at the moment busy (for example when controller is under programming), no operation is available.

- - indicator on
- - indicator off
- ★ - indicator blink

INSTALLATION

The terminal should be hung near the controlled passage, far from any sources of heat and moisture. Electric connections should be made with the power supply off according to the drawings shown at the end of this document. Before operation, installer must set terminal ID number. The ID number should be programmed on JP1..4 jumpers as shown below.

Jumper positions				ID number
JP1	JP2	JP3	JP4	
OPEN	OPEN	OPEN	OPEN	0
CLOSED	OPEN	OPEN	OPEN	1
OPEN	CLOSED	OPEN	OPEN	2
CLOSED	CLOSED	OPEN	OPEN	3
OPEN	OPEN	CLOSED	OPEN	4
CLOSED	OPEN	CLOSED	OPEN	5
OPEN	CLOSED	CLOSED	OPEN	6
CLOSED	CLOSED	CLOSED	OPEN	7

1. Roger recommends use of twisted, non-shielded pair of wires for CLOCK and DATA lines, no longer than 150 meters.
2. The power supply unit should be located as close as possible from controller/terminal.
3. Roger recommends to use few smaller power supply units rather than large one.
4. Roger recommends use 1..2A power supply.
5. Power Supply should be equipped with battery.

The minuses of all power supplies in access control system should be connected together and grounded.

OPTICAL TAMPER OUTPUT

The PRT22 terminal is equipped with optical tamper signalization output. Such type of output is a transistor type output which normally is shorted with supply minus. When device is detached from wall this output goes into high resistance state. Care must be taken when connecting this output to other circuits, this output is dedicated for up to 15mA currents and not more than 15Vdc.

Available PRT terminals:

PRT11 TERMINAL

- outdoor PIN-code terminal,
- users are identify by PIN codes,
- three extra status LED connection available,
- audible tone status indication (buzzer),
- anti-tamper switch,
- 10..15VDC supply voltage,
- supply current avg. 30 mA,
- extended temperature range (-20 +60 C grad),
- fully potted electronic module (IP65),
- full metal casing including key top
- dimensions 98 x 118.

PRT 21 TERMINAL

- indoor proximity terminal,
- users are identify by proximity cards,
- 15 cm reading range (ISO card),
- 0 ..+50 C grad temperature range,
- three status LED and buzzer,
- anti-tamper switch,
- 10..15VDC supply voltage,
- supply current avg. 60 mA,
- ABS casing
- dimensions 105 x 105 x 31.

PRT 22 TERMINAL

- outdoor proximity terminal,
- users are identify by proximity cards,
- 12cm reading range (ISO card),
- -20 ..+60 C grad temperature range,
- three status LED and buzzer,
- anti-tamper switch,
- 10..15VDC supply voltage,
- supply current avg. 60 mA,
- fully potted electronic module,
- optical tamper output,
- ABS casing
- dimensions 65 x 98 x 19.

PRT 23 TERMINAL

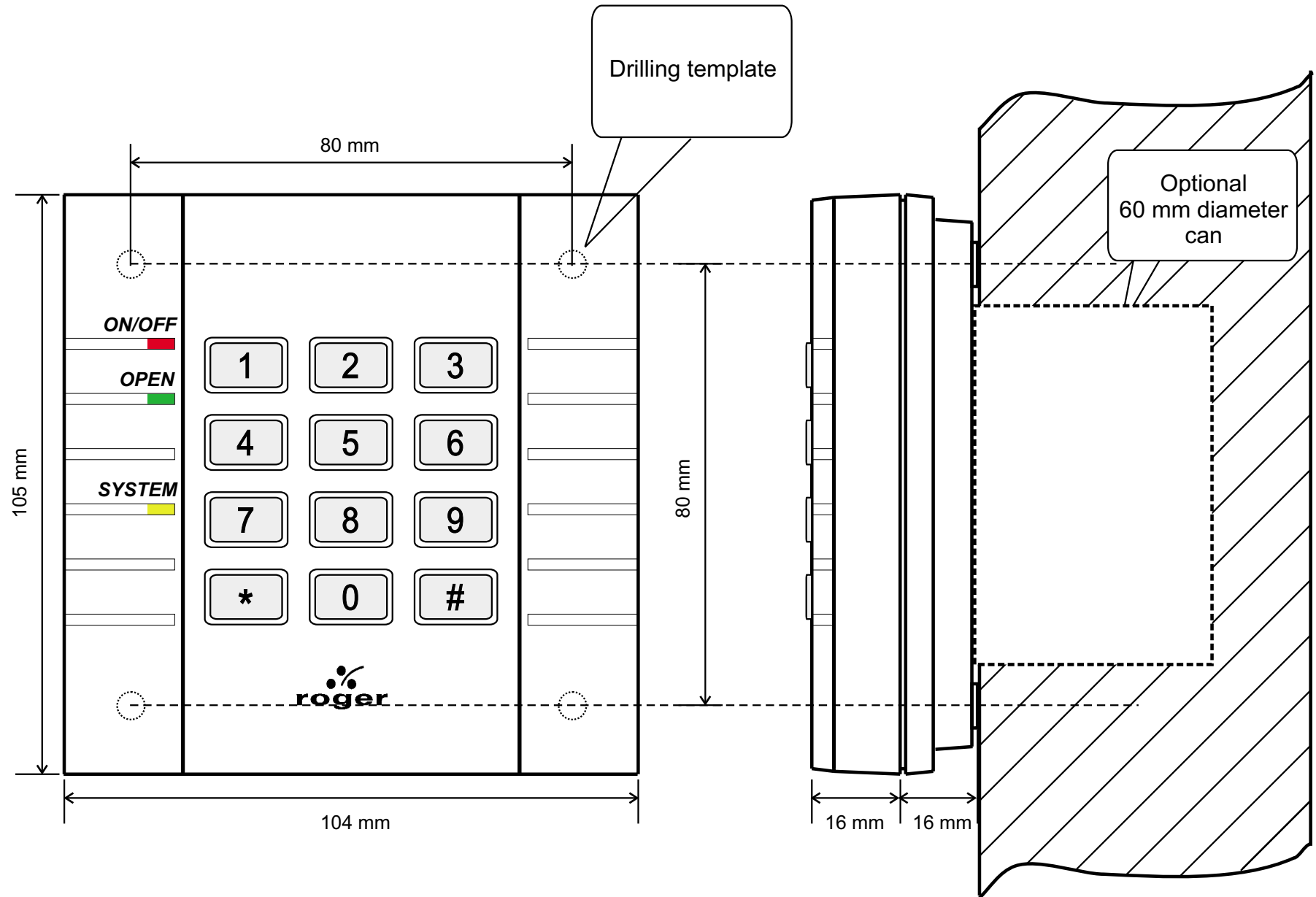
- indoor proximity terminal with optional PIN code module,
- users are identify by proximity cards and optional by PIN-codes,
- 7cm reading range (ISO card),
- 0 ..+50 C grad temperature range,
- three status LED and buzzer,
- 10..15VDC supply voltage,
- supply current avg. 60 mA,
- ABS casing,
- dimensions 84 x 84 x 10.

PRT31 TERMINAL

- indoor PIN code and proximity terminal,
- users are identify by proximity cards and/or PIN code,
- 15 cm reading range (ISO card),
- 0 ..+50 C grad temperature range,
- three status LED and buzzer,
- anti-tamper switch,
- 10..15VDC supply voltage,
- supply current vg. 60 mA,
- ABS casing,
- dimensions 105 x 105 x 31.

ID selection
(valid only for
PRT31 terminal)

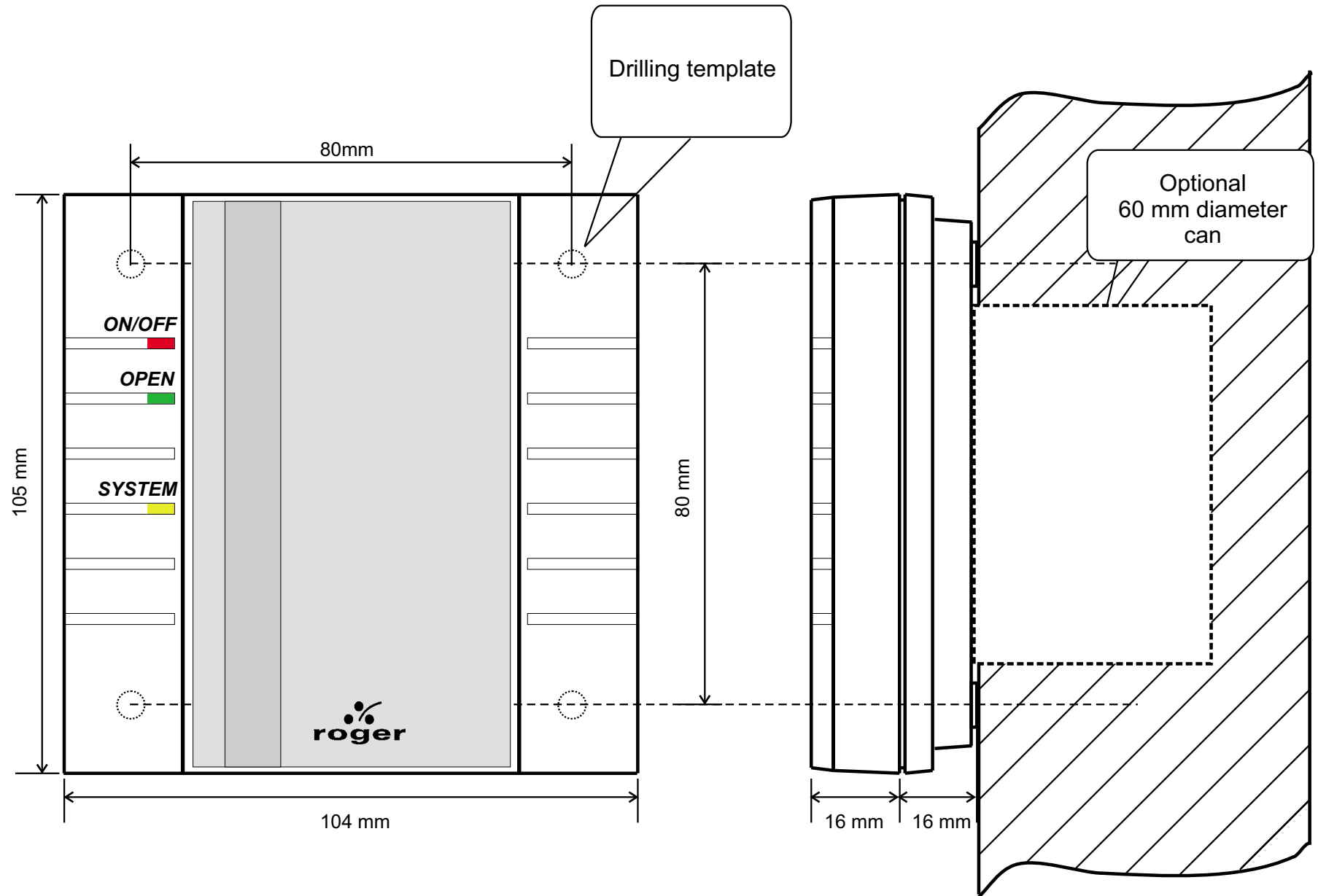
	0
	1
	2
	3
	4
	5
	6
	7



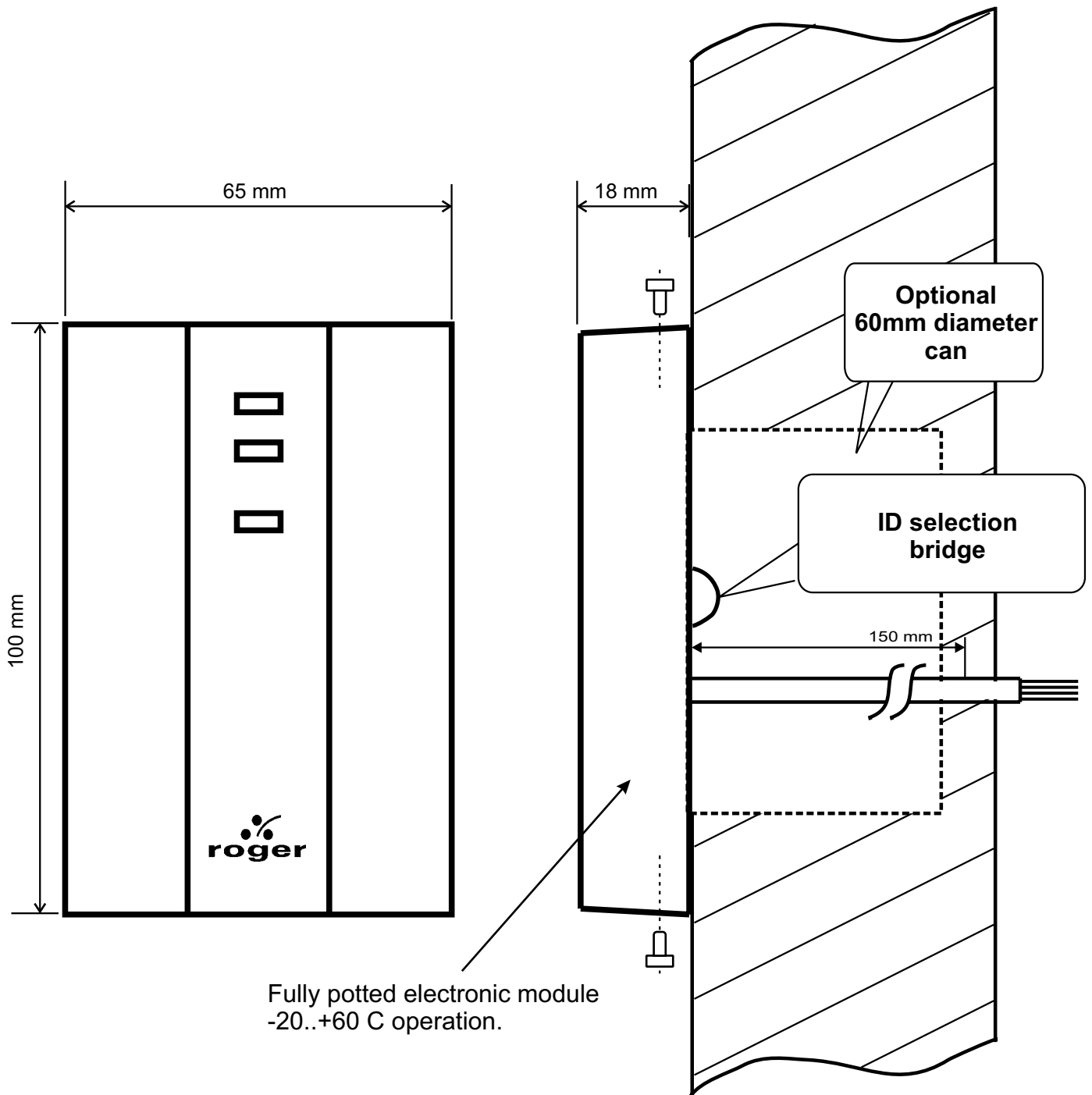
The front and side view of PR301 controller and PRT31 terminal.
Scale 1 : 1

ID selection
(valid only for
PRT31 terminal)

	0
	1
	2
	3
	4
	5
	6
	7
JP1 JP2 JP3 JP4	

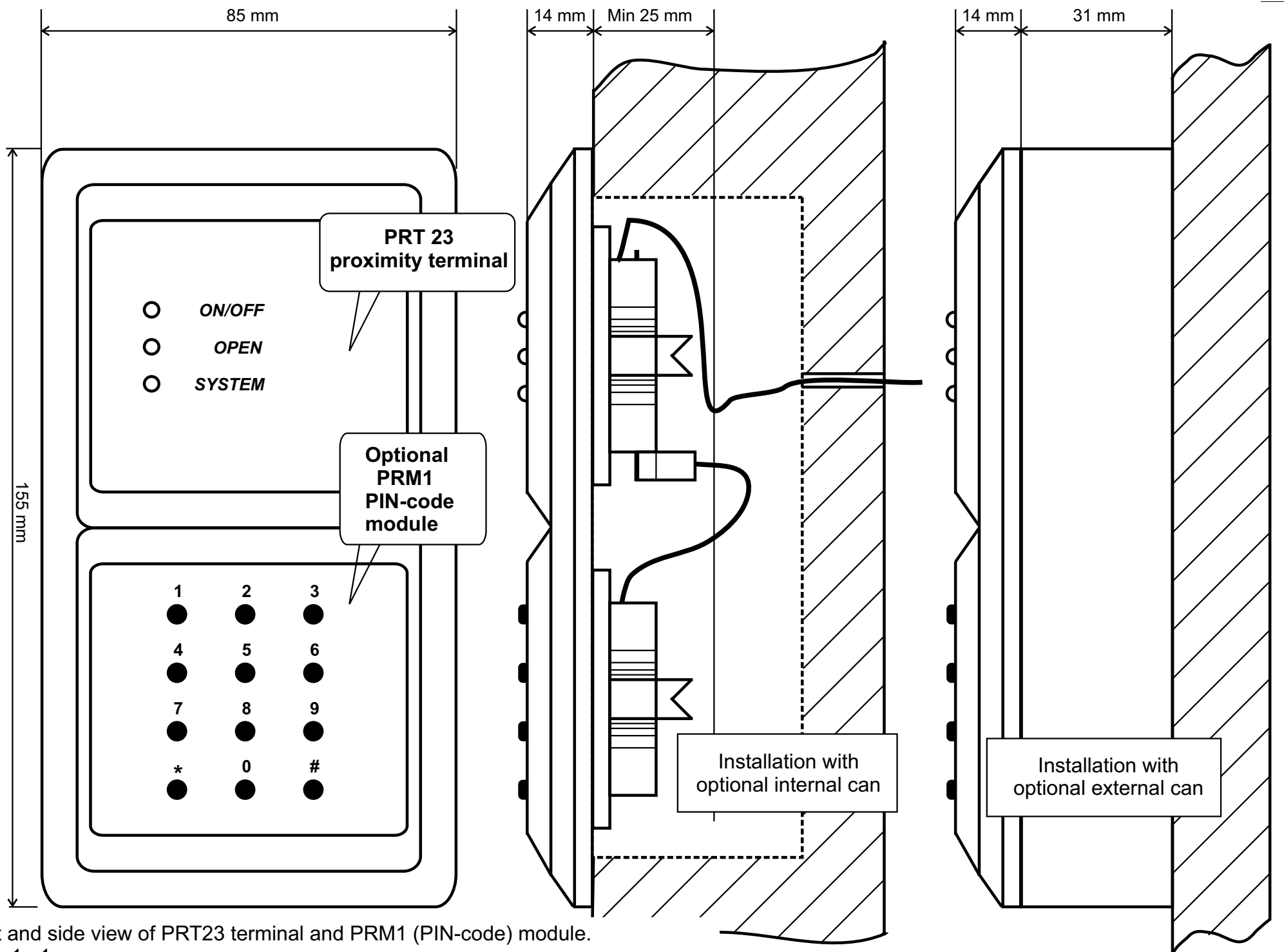


The front and side view of PR201 controller and PRT21 terminal.
Scale 1 : 1



Terminal ID selection	
	ID = 1
	ID = 0

Front and side view of PRT22 terminal
Scale 1 : 1

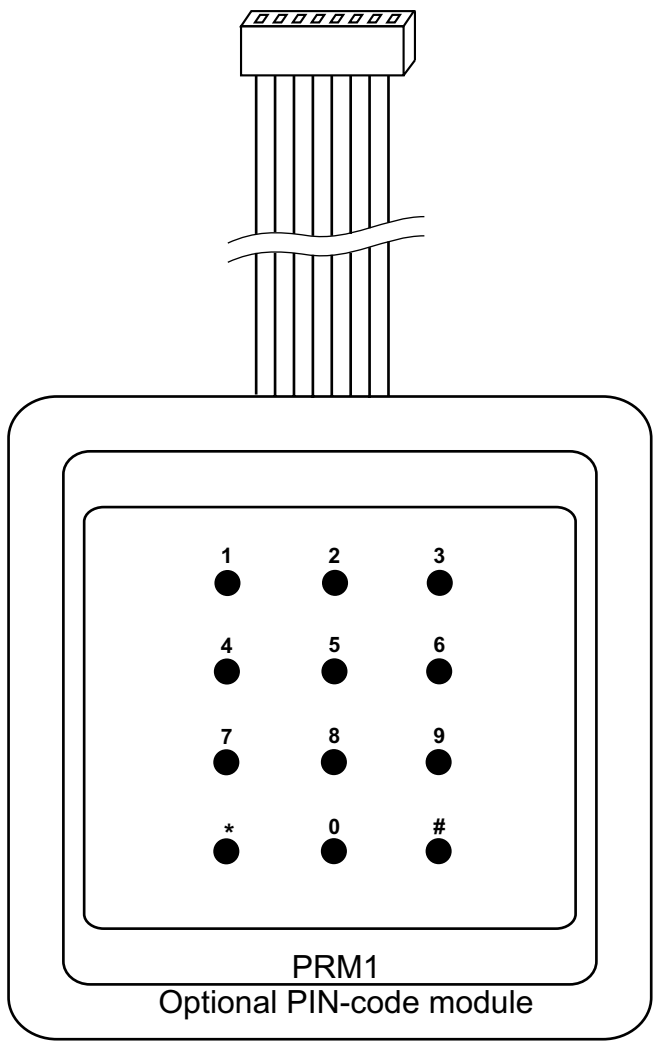
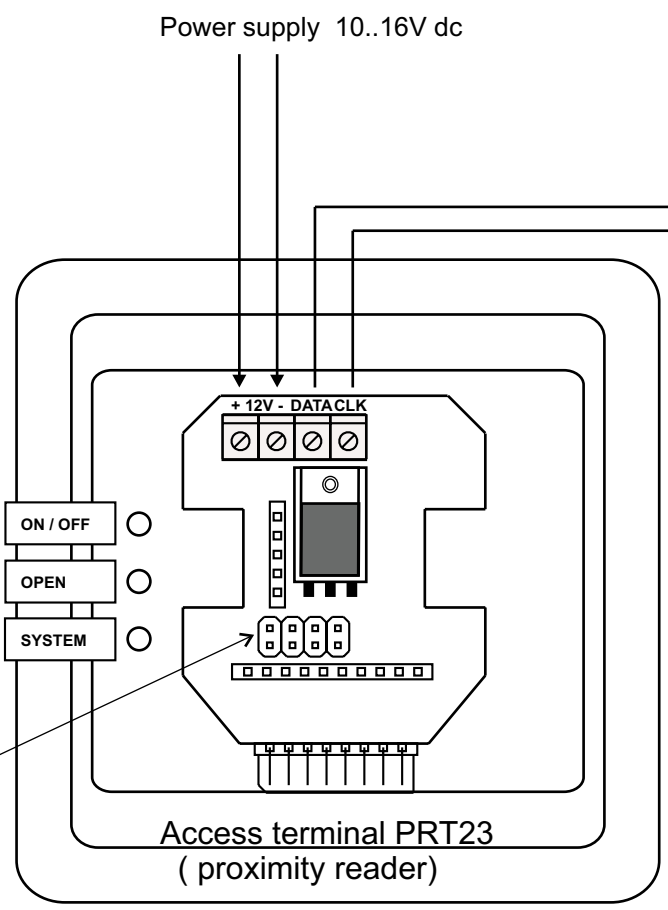


Front and side view of PRT23 terminal and PRM1 (PIN-code) module.
Scale 1 : 1

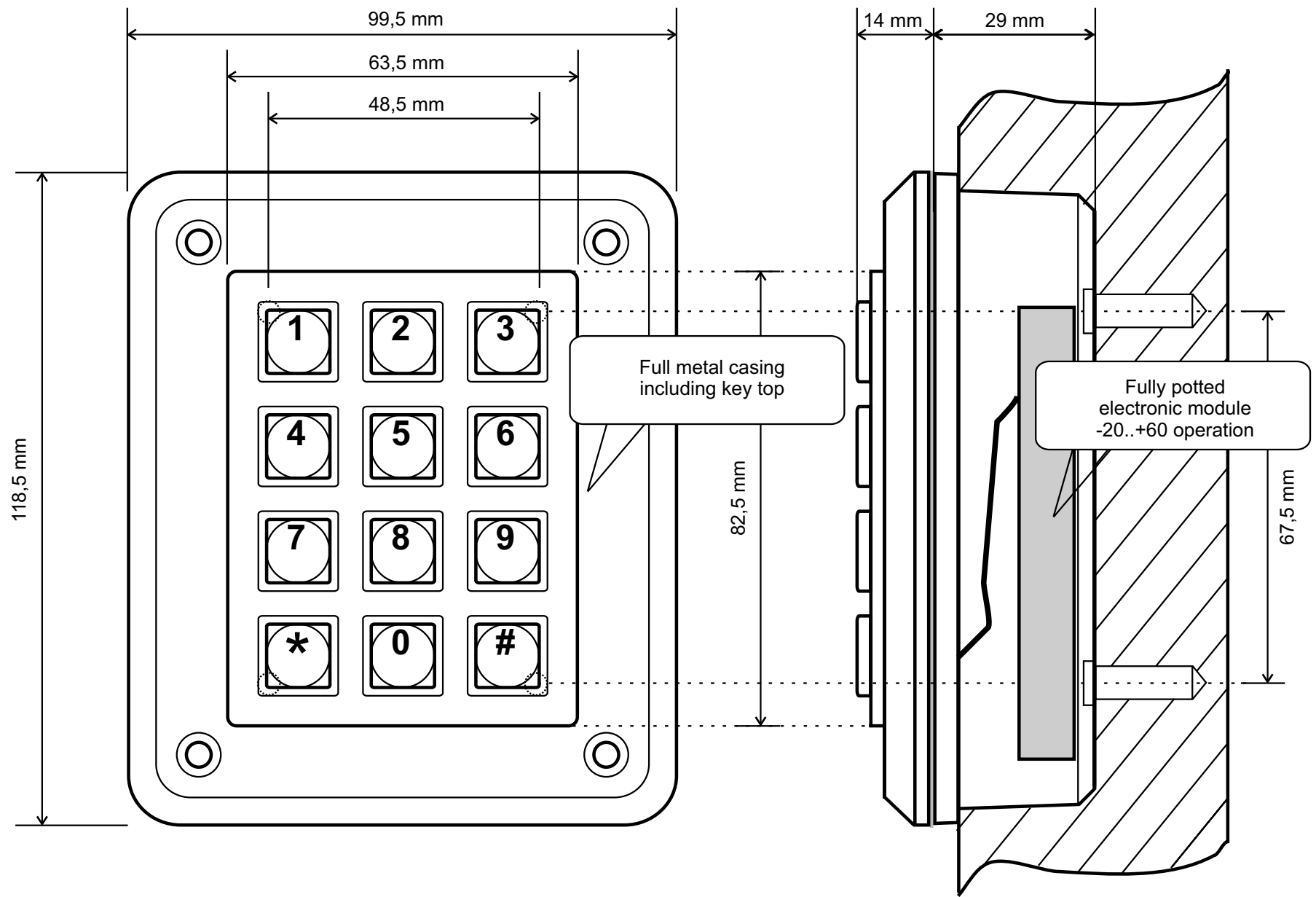
For operation with PR301/201 controller select ID=0
 For operation with PR401 controller select ID=0 or ID=1

ID address selection

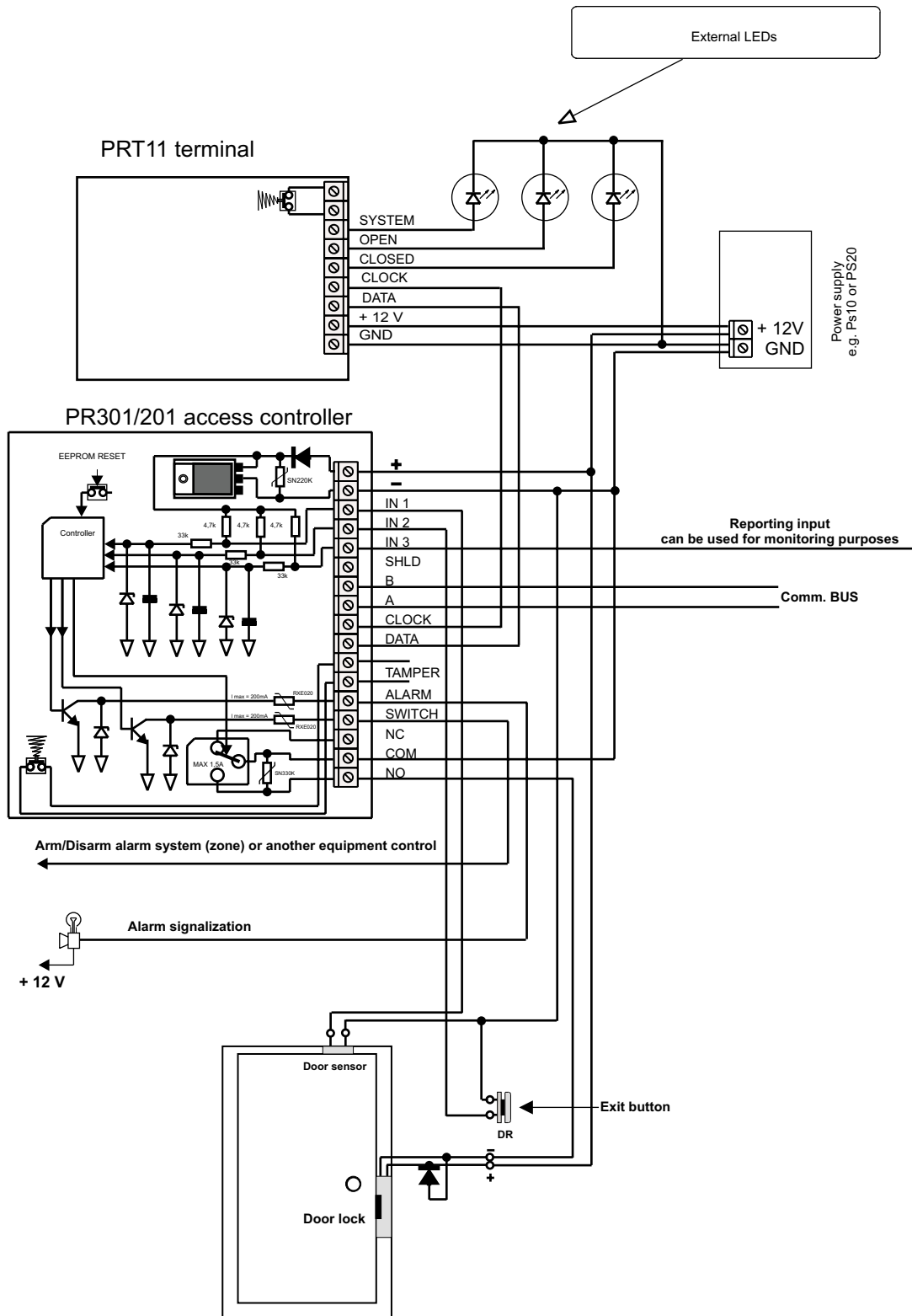
	0
	1
	2
	3
	4
	5
	6
	7



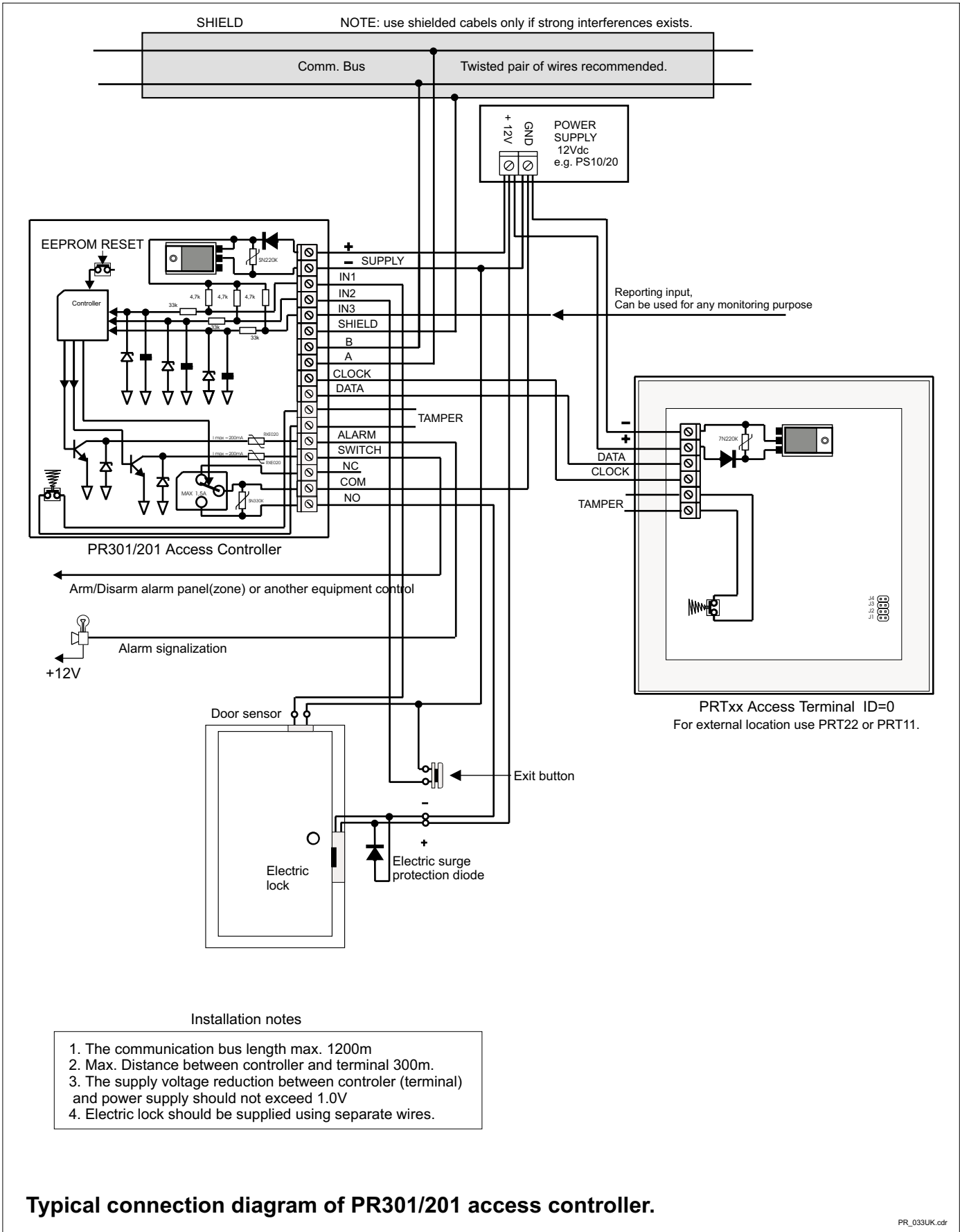
Connection diagram of PRT23 and PRM1

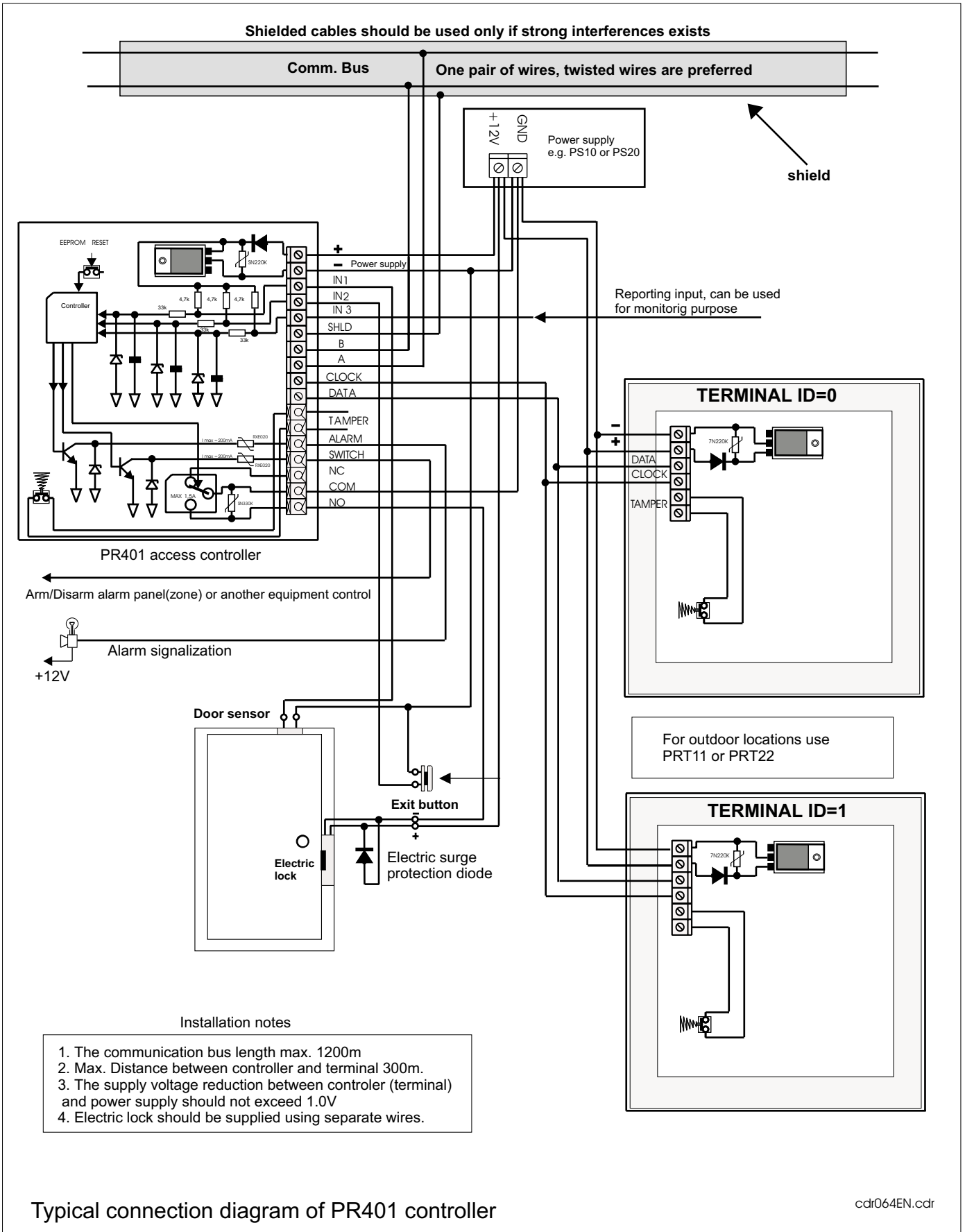


Front and side view of PRT11 terminal.
Scale 1 : 1



Connection diagram of PRT11 terminal to access controller





Typical connection diagram of PR401 controller