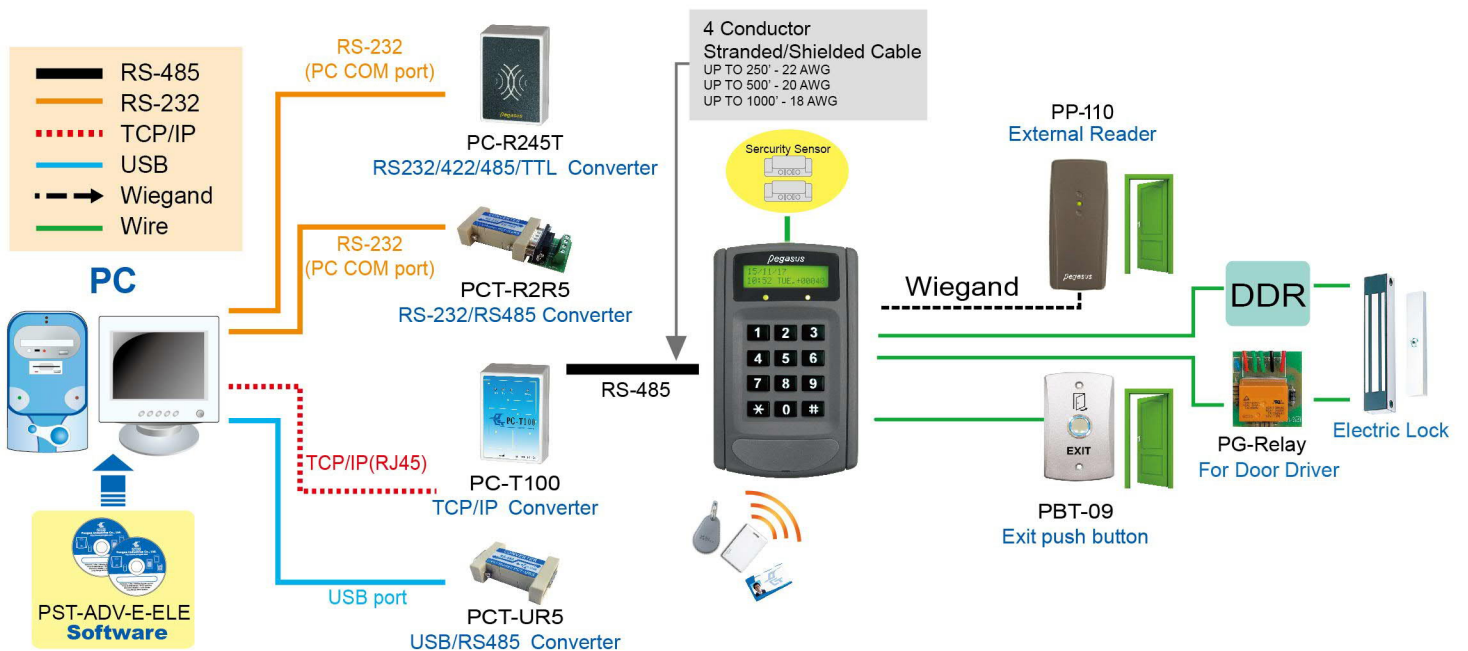


Dual Frequency  
125KHz 13.56MHz

Dual Decoding  
ASK FSK









System Configuration





Example Applications

 <p><b>PUA-310V1</b> Surface Mount</p>	<p>RS-232</p> <p>RS-485</p> <p>USB</p>		<p>HMI (human-machine interaction)</p>
 <p><b>PUA-310V1</b> Surface Mount</p>	<p>RS-232</p> <p>RS-485</p>		<p>Charging station</p>
 <p><b>PUA-310V</b> Desktop</p>	<p>USB</p>		<p>POS System Membership schemes Copier accounting</p>

Introduction

- Easily interfaced with Pongee or other standard access controller for management of access control, time attendance & lift access control systems.

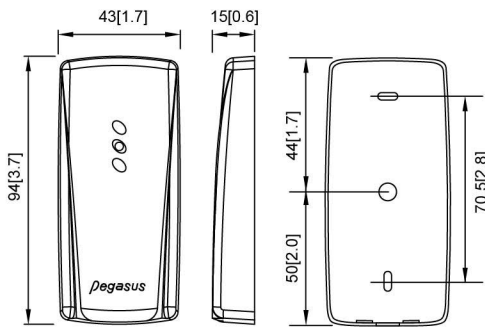
Features

- LED indicators show power and operation status.
- Built-in buzzer for sound notification.
- Provides tamper switch.
- Exclusive **Q type** format developed by Pongee is incompatible with general proximity reader. This technology supplies higher security.
- Supports Multi-frequency (EM \ Mifare ISO15693 \ ISO14443A/B) reader. (by optional)
- With CPU watch-dog function to prevent malfunction.
- Suggested to pair with
  - Standalone system: PP-87, 5878G controller
  - On-line system: PP-6750V, PP-85, PP-35, PP-36, PP-3790 or PP-3702T controller

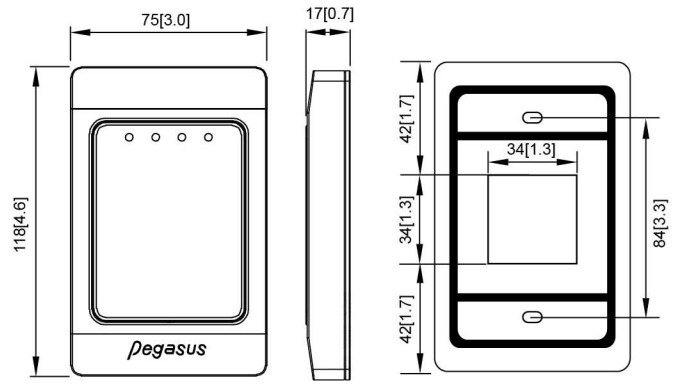
Specification

Appearance										
Model No.	PP-30	PP-110	PUA-310V1	PUA-311	PUA-310V	PP-5210	PP-5211	PP-610	PW-710	
RFID frequency	125KHz ASK 125KHz FSK	125KHz ASK 125KHz FSK		125KHz ASK	125KHz ASK 13.56MHz Dual frequency	125KHz ASK 13.56MHz				
	13.56MHz	13.56MHz	13.56MHz M3 Dual frequency	125KHz FSK						
Applicable cards	EM 4001,EM 4102 or compatible card, TEMIC 5557 Mifare S50, S70, Mifare Ultralight, Mifare DESFire, Felica, NFC Tag									
Mounting	Flush Mounted	Surface Mount			Desktop	Surface Mount			Desktop/Surface Mount	
Keypad	NO	NO		3X4 keypad	NO	NO	3X4 Membrane keypad	NO	NO	
Waterproof	YES	YES		NO	NO	YES		NO	YES	
Reading range	EM 125KHz ASK	6~7cm	6~18cm	6~19cm	6~18cm	5~6cm	6~20cm	8~21cm	5~22cm	5~6cm
	125KHz FSK	3cm	6~8cm	6~10cm	6~10cm	5~6cm	---	---	---	5~6cm
	Mifare 13.56MHz	3cm	4~7cm	5~7cm	---	5~6cm	5~8cm	5~8cm	5~8cm	5~6cm
	M3 type	---	---	6~19cm	---	---	---	---	---	---
Output format (Interface)	RS-232 /Wiegand 26/34bits /ABA (Track2)	RS-232/RS-485/Wiegand 26/34bits <26~64bits(Optional)> / ABA (Track2) / USB		RS-232 / RS-485 / Wiegand 26 bits	USB	RS-232 / RS-485 / Wiegand 26 bits		Wiegand 26/ 34 bits / ABA (Track2)	RS-232/RS-485/ Wiegand 26/34bits / ABA (Track2) / USB	
Transmission rate	9,600 bps N, 8, 1(19,200 bps N, 8, 1)(Optional)									
Operating voltage	12V DC	5V DC / 12V DC / 24V DC			By USB	12V DC				
Indications	LED	LED(Power / Status)								
	Buzzer	Built-in buzzer sound								
Tamper switch	YES									
Watchdog	YES									
Responding signal (LED/Buzzer)	YES									
Operating temperature	-10°C~75°C									
Storage temperature	-20°C~85°C									
Material / Color	PC/Black	ABS/Brown	ABS/Black、White	ABS/Black、White	ABS/Black、White	ABS/Black	ABS/Black	ABS/Black	ABS/Black	
Dimensions(L×W×H) mm	39.7(Diameter)	94 x 43 x 15	118 x 75 x 16	118 x 75 x 16	118 x 75 x 17	115 x 78 x 31	115 x 78 x 31	138 x 85 x 29	122 x 77 x 32	

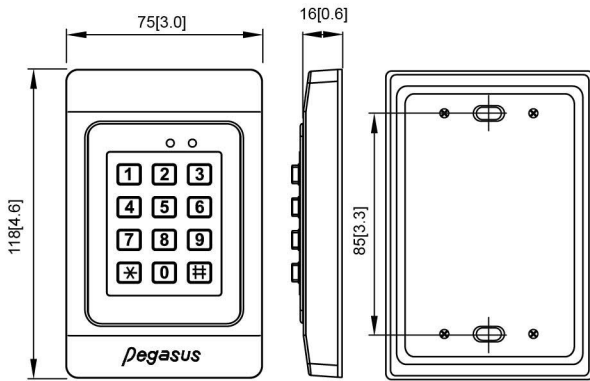
Dimensions mm[inch]



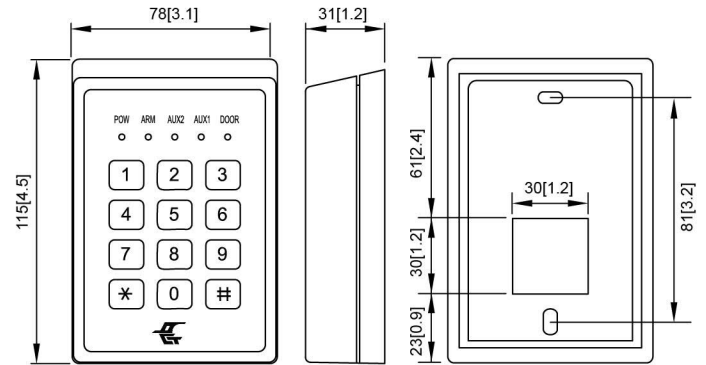
PP-110



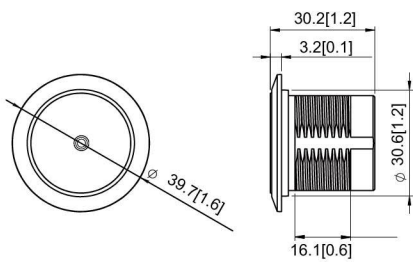
PUA-310V / PUA-310V1



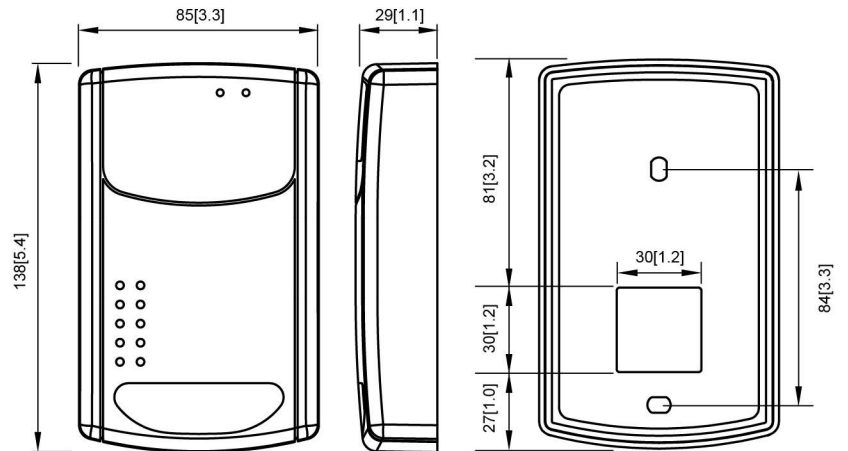
PUA-311



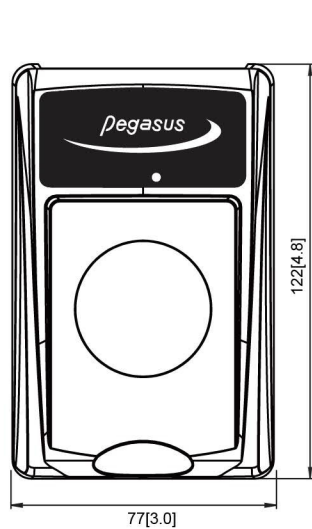
PP-5210 / PP-5211



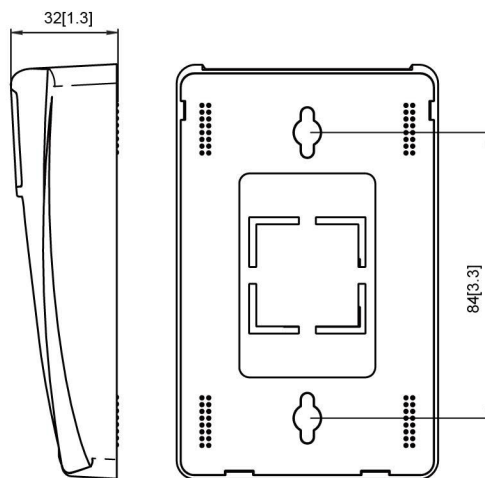
PP-30



PP-610





PW-710



## Ordering information

PUA-310V - 0 N R2 D 01

Model No.	Epoxy	Applicable cards	Output Interface	Numeral system	Code	Read card number					Output card number format			CheckSum		
						In reverse Note 1	In positive Note 1	2bytes	3bytes	4bytes	5bytes	8 digits	10 digits		14 digits	
 Desktop	0: W/O epoxy 1: Epoxy	N: 125KHz ASK EM	R2:RS-232 R5:RS-485 U1:USB	D:Decimal	01				•			•				
					02				•							
					03						•				•	
			04								•					
			05									•				
			06											•		
		07												•		
		08													•	
		09						•		•						•
		10						•		•						•
		01						•								•
		02						•								•
	03														•	
	04														•	
	05														•	
	06														•	
	07														•	
	08														•	
	09						•		•						•	
	10						•		•						•	
	01						•								•	
	02						•								•	
	03														•	
	04														•	
W:Wiegand 26: 26bit, 34: 34bit <42/44/64 bits(Optional)>																
 Surface Mount	0: W/O epoxy 1: Epoxy	M0/M1/M8: 13.56MHz Mifare (Ultralight, NFC Tag, )  MD: 13.56MHz Mifare DESFire (Ultralight, NFC Tag )  F: 13.56MHz Mifare & Felica (Ultralight, NFC Tag )	R2:RS-232 R5:RS-485 U1:USB	D:Decimal	01	•				•			•			
					02	•				•					•	
					03	•						•				
			04	•							•					•
			05	•								•				•
			06	•									•			•
		07	•										•		•	
		08	•											•	•	
		09	•					•		•						•
		10	•					•		•						•
		01	•					•								•
		02	•					•								•
	03	•													•	
	04	•													•	
	W:Wiegand 26: 26bit, 34: 34bit, 58:58bit <42/44/64 bits(Optional)>															
	H: 125KHz FSK	R2:RS-232 R5:RS-485 U1:USB	D:Decimal	01									•			
				02										•		
		H:Hexadecimal	01												•	
			02												•	
		A:ABA	D:Decimal	01												•
				02												•
	H:Hexadecimal	01													•	
		02													•	
	W:Wiegand 26&34bit <32、35、36、37、40、42、48bit (optional)>															

### Note 1

Ex.: Card UID(Card No. in positive, Hexadecimal) : 7C 90 E0 65

Card No. in positive	Hexadecimal	→	Decimal (10 digits)	Decimal (10 digits)	Decimal (8 digits)
7C 90 E0 65	7C 90 E0 65	→	2089869413	31888 , 57445	14457445
	7C 90 E0 65	→	2089869413	31888 57445	144 57445
			Code: D08	Code: D10	Code: D05
Card No. in reverse	Hexadecimal	→	Decimal (10 digits)	Decimal (10 digits)	Decimal (8 digits)
65 E0 90 7C	65 E0 90 7C	→	1709215868	26080,36988	22436988
	65 E0 90 7C	→	1709215868	26080 36988	224 36988
			Code: D04	Code: D09	Code: D01

※U1 : Plug & Play, USB, keyboard emulation(without any PC driver)

※U3 : Serial port emulator thru USB interface

※M0 : Reading Mifare UID (Serial No.)

M1 : Mifare sector number assigned by Pegasus for specific customer.  
(with proprietary key)

M8 : Reading card number from Mifare block 8 by factory defaulted key.

※M2 : For Mifare read/write application (customized firmware),

U2: USB, Reader/Writer (with software)

※Standard RS-232 output format: <STX>000043090892<CR><LF><ETX>

※Standard RS-485 output format: <STX>000043090892<CR><LF><ETX>

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MIFARE DESFire is a registered trademark of NXP B.V.

FeliCa is a trademark of Sony Corporation.