

Packing Plant Series Panel Readers

ISO Compatible

Model - PPANT40CMX90CM



General Description

The Allflex Packing Plant Series Panel Readers are flat panel antennas and integral passive transponder reading devices that are compatible with the technical specifications of ISO Standards 11784 and 11785, including both HDX and FDX-B technologies. The Packing Plant Panel Readers provide the basic RFID reader functions of reading and transmitting the identification code contained within a passive transponder via RS232 serial data protocol for real time and batch mode data logging. The Packing Plant Panel Reader is provided with a Windows® based, PC utility *Configurator®*, which provides users an easy means of customizing the Panel Reader's serial data format and operating mode. The Packing Plant Panel Readers are intended for stationary mounting in applications where electronic, ear tagged carcasses transverse past the panel.

Construction

The Allflex Packing Plant Series Panel Reader is constructed of high-durability UHMW polyethylene in conjunction with a double box enclosure system, which houses the Panel Readers electronic assembly. Both the high durability UHMW and double box enclosure system are designed to withstand the hazards and abuse that exist in the Packing Plant environment. The Panel Reader's antenna coil is sealed within the UHMW polyethylene. The Panel Reader's double enclosure system consists of a stainless steel watertight enclosure housed inside of a larger fiberglass enclosure. The stainless steel enclosure encompasses the Packing Plant Panel Readers' electronic assembly. The data/power cables exit the stainless steel compartment through watertight strain reliefs. Both the UHMW antenna and fiberglass enclosure are attached to a stainless steel mounting pool that can be attached to the desired location on the Packing Plant floor, resulting in a very stable reader system. This design also allows for ease of adjustment for the height of the Packing Plant Panel Reader antenna.



Performance Capabilities

The Allflex Packing Plant Series Panel Reader provides various read range performances that are proportional to panel size and supply voltage, which can range between 6 and 12 VDC. Typical read range performances are listed within the Specifications section of this document.

Ordering Information

SKU	Description
PPANT40CMX90CM	Packing Plant Series Panel Reader 40CM X 90CM
Accessories	
PW406	Panel Reader Power Supply 6 Volts @ 3.0 Amps

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SPECIFICATIONS

GENERAL

RFID Compatibility:	ISO 11784 & 11785 HDX and FDX-B
Form Factor:	UHMW Polyethylene
User Interface:	Red LED "Exciter Active" Visual Indicator Green LED "Good Read" Visual Indicator RS232 Serial Data Feed
RS232 Serial Port:	1200 BPS to 57.6 KBPS (9600,N,8,1 default setting)
Serial Data ID Code Format	Decimal to Hexadecimal with flexible formatting options
Memory:	Retains last ID Code read in non-volatile memory for retransmission
User Options:	Non-volatile mode control options selectable via RS232 serial port interface
Power/Data Interface:	User Supplied
Antenna Tuning:	Capacitor array located inside reader compartment
Battery Power:	6 to 12 VDC (External Battery or Mains Powered Linear Regulated Supply)
Agency Certifications: (PENDING)	Electromagnetic Compatibility – FCC Part 15 Class A / CISPR 22(EN55022) * ISPRA Certification

PHYSICAL/ENVIRONMENTAL

Panel Reader Model:	PPANT40CMX90CM
Dimensions:	40cm (15.75") x 90cm (35.43") x 40mm (1.57")
Weight:	~ 90kg (198.42lbs)
Material:	UHMW Polyethylene
Color:	White with Gray fiberglass enclosure
Operating Temperature	-10°C to + 55°C (IEC68.2.1/.2)
Storage Temperature	-40°C to + 85°C (IEC68.2.1/.2)
Humidity:	0 to 100% (IEC.2.56)
Altitude:	-100 to +3,000 meters
Mechanical Shock:	Per IEC 68-2-27 (15g/11mS saw tooth) & 1 meter free-fall drop onto concrete)
Vibration:	Per IEC 68-2-6 (10-55 Hz sinusoidal/0.75mm displ./1 oct/min./10 cycles)
Hermeticity:	IP-67 (dust-tight/immersible) per IEC 529

RELIABILITY

MTBF:	50,000 hours
MTTR:	0.5 hours (field replaceable electronics module)
Expected Life:	5 years, minimum

PERFORMANCE

Panel Reader Model:	PPANT40CMX90CM
Read Distance: (@ 6 VDC battery)	100cm (39.37") (HDX/HP) 70cm (27.56") (FDX-B)
Reading Orientation:	0° to 45° with less than 10% range decrease
Read Zone:	80% of read distance across entire panel surface on either side
Interrogation Rate:	~ 9 times/second
Read Error Rate:	Less than 1 in 10 ⁶
Exciter Signal Radiated Field Strength: @ 10 meters w/6VDC power input	103 dBuV/m

