

# SmartPass® 4 Reader

## Features

- ▶ Ideal for parking, security access, electronic vehicle registration, and traffic management
- ▶ Fixed mount, integrated package with waterproof enclosure
- ▶ Reads ATA tags
- ▶ 915 MHz RF band operation in North America
- ▶ Half-frame, full-frame (ATA), and Wiegand capability
- ▶ Internal and external antenna models
- ▶ Real-time clock
- ▶ Tag read buffering
- ▶ Programmable RF output power
- ▶ Quick, simple installation



TransCore's SmartPass® 4 is a series of fully integrated, self-contained 915 MHz wireless radio frequency identification (RFID) readers that are specifically targeted at high performance applications in parking, security access, electronic vehicle registration (EVR) and traffic management. Each SmartPass 4 reader includes a radio frequency (RF) module, digital signal processor (DSP), power supply, antenna (unless external antenna option is selected), I/O interfaces, and RS-232 or RS-422 serial communications interface.

The SmartPass 4 is capable of reading the American Trucking Associations (ATA) protocol.

Additionally, for compatibility with existing security systems, SmartPass 4 can read half-frame and full-frame ATA tags and Wiegand formatted tags and identification cards.

All SmartPass 4 readers provide unparalleled flexibility by offering a real-time clock; expanded tag read buffering; programmable RF power; 250 KHz programmable frequency steps; system integrity checking; and programmable group select.

SmartPass 4 readers are quickly and easily installed, tested, and maintained by TransCore-trained authorized personnel. The SmartPass 4's command set is compatible with TransCore's SmartPass and Encompass® 2 readers.

# SmartPass® 4 Reader

## RF CHARACTERISTICS

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### Frequency Range

902 to 928 MHz capable

911.75 to 919.75 MHz FCC-authorized in United States

### Internal Antenna Gain

9.5 dBi

### RF Control

By sense input or host command

### Polarization

Linear, horizontal

### Range

Read performance varies depending on tag and reader configuration and environment. Typical read range should be 12 to 17 ft (3.7 to 5.2 m).

Consult the *Encompass® 4 Reader System Guide* for tag and reader selection.

## I/O CONTROL

Input: two independent dry contact closures for sense circuits

Output: two independent Form-C contacts

RS-232 with Wiegand or RS-422 with Wiegand-compatible host interface

## POWER REQUIREMENTS

### Input Power

16 to 20V AC, 47 to 63 Hz, or 16 to 28V DC

### RF Output Power

2 W maximum to 200 mW minimum, selectable in 1 dB steps

## LICENSING

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### Equipment License

The user is required to obtain a Part 90 site license from the FCC to operate the unit in the United States. Access the FCC Web site at [www.wireless.fcc.gov/uls](http://www.wireless.fcc.gov/uls) for more information.

FCC ID: FIH05531

Industry Canada ID: 1584A-05531

Users in all countries should check with the appropriate local authorities for licensing requirements.

## COMPLIANCE

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### RF Interference

Units have been tested and are verified to Part 15 of the FCC rules for a Class A digital device.

### Safety

SmartPass 4 readers comply with the requirements of Underwriters Laboratories UL-1950, Standard for Safety of Information Technology Equipment.

## PHYSICAL

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### Dimensions

**Size:** 15.5 x 15.5 x 3.25 in. (39.4 x 39.4 cm)

**Weight:** 9.5 lb (4.3 kg)

### Mounting Location

Pole or wall mount

Indoor or outdoor

### Enclosure

The system is environmentally sealed in a tamper-proof, polycarbonate housing.

## ENVIRONMENTAL

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### Operating Air Temperature

-40°F to +131°F (-40°C to +55°C)

### Humidity

100% condensing

### Vibration

0.5 G<sub>rms</sub>, 10 to 500 Hz

## OPTIONS

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### Cable Accessory Kits

Cable Accessory Kits allow flexibility in installing the SmartPass 4. Include the part number when ordering.

**Part number 58-1620-001:** connector with 5 ft (1.5 m) cable

**Part number 58-1620-002:** connector with 20 ft (6.1 m) cable

### Wall Mount Bracket

Allows adjustment in all planes when used to install the SmartPass 4 on a flat surface. Include the part number 54-1620-001 when ordering.

### Transformer

A Class C transformer (part number 76-1620-005) is available to allow 110V AC to 18V AC conversion. Include the part number when ordering.

### Training

Installation, operation, and maintenance training for TransCore authorized dealers is available through TransCore. For details, contact TransCore.

## DOCUMENTATION

*Encompass® 4 Reader System Guide*