

# Encompass<sup>®</sup> 4

## RFID Reader

TransCore's Encompass<sup>®</sup> 4 family of fully integrated wireless radio frequency identification (RFID) readers are designed for use in parking, security access, electronic vehicle registration (EVR), traffic management, low-speed electronic toll collection, fleet, trucking, and rail applications.

The Encompass 4 Reader has the capability to read SeGo, ATA, and IAG protocol tags<sup>1</sup>. The reader can be ordered with up to two protocols enabled.

The Encompass 4 Reader communicates with the host computer through an asynchronous RS-232 or RS-422 serial line or through a Wiegand interface. The built-in Wiegand translator converts ATA, eGo, and SeGo tags into Wiegand data for compatibility with existing security systems.

Encompass 4 readers also provide expanded tag read buffering, programmable RF power and frequency, system integrity checking, and programmable group select.

Encompass 4 readers can be easily installed, tested, and maintained by authorized personnel.



### Features

- ▶ Multiprotocol
- ▶ Built-in Wiegand translator
- ▶ Fixed mount, integrated package with water resistant enclosure
- ▶ Internal and external antenna models

### Applications

- ▶ Parking
- ▶ Security access
- ▶ Electronic vehicle registration
- ▶ Traffic management
- ▶ Low-speed electronic toll collection
- ▶ Fleet, trucking, and rail applications

<sup>1</sup> Other protocols available on request

# Encompass<sup>®</sup> 4 Reader

## COMMUNICATIONS

### Frequency Range

865 to 870 MHz capable  
902 to 928 MHz capable  
911.75 to 919.75 MHz FCC-authorized in US  
902.25-903.75 and 910.00-921.50 CW (ATA only)<sup>2</sup>

### 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

## HARDWARE FEATURES

### I/O controls

**Input:** two independent dry contact closures for sense circuits

**Output:** two independent Form-C contacts

### Communication Port

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

Adjustable from 33 dBm (2W) to 23 dBm (200mW) in 1 dB steps

## LICENSING

### 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 website at [wireless.fcc.gov/uls](http://wireless.fcc.gov/uls) for more information.<sup>3</sup>

**FCC ID:** FIH05531

**Industry Canada ID:** 1584A-05531

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

## COMPLIANCE

### RF Interference

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

### Safety

Complies with the requirements of UL-1950, Standard for Safety of Information Technology Equipment

## PHYSICAL

### Dimensions

**Size:** 15.5 x 15.5 x 3.25 in. (39.4 x 39.4 x 8.25 cm)

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

### Mounting Location

Pole or wall mount  
Indoor or outdoor

### Enclosure

Tamper resistant, polycarbonate housing

## ENVIRONMENTAL

### Humidity

100% condensing

### Vibration

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

### Operating Temperature

-40°F to 131°F (-40°C to 55°C)

## OPTIONS

### Cable Accessory Kits

Cable Accessory Kits allow flexibility in installing the Encompass 4.

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

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

**58-1620-006:** connector with 35ft (10.6m) cable

### Wall Mount Bracket

Allows adjustment in all planes when used to install the Encompass 4 on a flat surface

**54-1620-001:** Mounting Kit

### Transformer

Class C transformer available to allow 110V AC to 18V AC conversion

**76-1620-005:** Transformer 120V AC - 18V AC

### Training

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

<sup>2</sup> 902.75-903.50 are not recommended. Although these frequencies are approved by the FCC, certain auto manufacturers use these frequencies for their key fobs. As a result, this reader may interfere with the key fob's signal, negatively affecting the ability of the fob to communicate with the vehicle.

<sup>3</sup> Contact TransCore Sales Support for information concerning regulatory requirements for your region.

## For more information:

### Sales Support

800.923.4824

### Technical Support

505.856.8007

[transcore.com](http://transcore.com)

