Encompass® 4 Reader

Features

▶ Ideal for parking, security access, electronic vehicle registration, and traffic management

▶ Multiprotocol

▶ Fixed mount, integrated package with waterproof enclosure

▶ Reads Super eGo® (SeGo), eGo, ATA/AAR, and/or IAG 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

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TransCore's Encompass® 4 is a family 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 Encompass 4 reader includes a radio frequency (RF) module, digital signal processor (DSP), power supply, antenna (unless external antenna option is selected), input/output interfaces, and RS–232 or RS–422 serial communications interface.

The Encompass 4 family includes models capable of reading any two of the following standard protocols:

▶ Super eGo

▶ eGo (ISO 18000 6B)

▶ American Trucking Associations (ATA)

▶ Association of American Railroads (AAR)

▶ Interagency Group (IAG)

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

All Encompass 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.

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

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Encompass® 4 Reader

RF CHARACTERISTICS

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. Using the eGo or eGo Plus Windshield Sticker Tags, 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 1dB 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 Web site at www.wire-less.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

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

Safety
Encompass 4 readers comply with the requirements of Underwriters Laboratories 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 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

Operating Air Temperature
-40°F to +131°F (-40°C to +55°C)

Humidity
100% condensing

Vibration
0.5 G_{rms}, 10 to 500 Hz

OPTIONS

Cable Accessory Kits
Cable Accessory Kits allow flexibility in installing the Encompass 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 Encompass 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 Quick Start Guide
Encompass® 4 Reader System Guide

For more information:

Call **1.800.923.4824 • 214.461.4031** or fax **214.461.6478**

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