TransCore's Encompass® 4H is a fully integrated, self-contained wireless radio frequency identification (RFID) reader designed for use in unlicensed FCC or ETSI operating environments. This high performance RFID reader is ideal for an array of applications including parking and security access, electronic vehicle registration (EVR), traffic management, rail automatic equipment identification (AEI), and low-speed electronic toll collection.

The Encompass 4H reader offers multiple I/O interfaces and either RS-232 or RS-422 communications. The reader is compatible with eGo®, SeGo, and ATA protocols as well as Wiegand formatted tags and identification cards, for use with existing systems.

All Encompass 4H readers provide unparalleled flexibility by offering expanded tag read buffering, software controlled RF power, and system integrity checking.

Encompass 4H readers can be easily installed, tested, and maintained by authorized personnel. The Encompass 4H reader also offers backward compatibility with TransCore’s SmartPass®, Encompass 2, Encompass 4, and All611 readers.

Features
- Multiprotocol
- Fixed mount, integrated package with weather-resistant enclosure for indoor and outdoor operation
- FCC or ETSI band operation
- Tag read buffering

Applications
- Parking and security access
- Electronic vehicle registration (EVR)
- Traffic management
- Rail automatic equipment identification (AEI)
- Low-speed electronic toll collection
Encompass® 4H

COMMUNICATION

**Frequency Range**
- **FCC:** 902-928MHz, Frequency Hopping
- **920-925MHz** (Hong Kong)
- **ETSI:** 865.7-867.5MHz, Frequency Hopping

**Internal Antenna Gain**
- 11 dBi

**RF Control**
- By sense input or host command

**Polarization**
- Linear, horizontal

**Read Range**
- Typical read range varies depending on tag and reader configuration and environment.

HARDWARE FEATURES

**I/O Control**
- **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 (EIRP)**
- 4W maximum to 1W minimum, selectable in 1dB steps

LICENSING

Equipment license not required

COMPLIANCE

**Safety**
- **FCC:** Complies with UL 60950-1
- **ETSI:** Certified to IEC 60950-1 with CB scheme

**Standards**
- Unit complies with the following standards:
  - CFR 47 FCC Parts 2 and 15B, and Industry Canada RSS-210 and RSS GEN, EMI
- **ETSI Standards**
  - EN 302 208 RFID Equipment
  - EN 301 489 EMC Compatibility
  - EN 50121-4 EMC Emission and Immunity, Railway Applications

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

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

**Humidity**
- 100% condensing

**Vibration**
- 2.3 G RMS, 5 to 2000 Hz

COMPATIBILITY

Super eGo: SeGo
eGo: ANSI NCITS 256-2001 Part 4.2 and ISO 18000-6B standards
ATA: American Trucking Associations standard

OPTIONS

**Cable Accessory Kits**
- Cable accessory kits allow flexibility in installing the Encompass 4H. Include the part number when ordering.

**Wall Mount Bracket**
- Allows adjustment in all planes when used to install the Encompass 4H on a flat surface. Include the part number 54-1620-001 when ordering.

TRAINING

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

DOCUMENTATION

Encompass® 4H Reader System Guide

PART NUMBERS

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<th>FCC</th>
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For more information:

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transcore.com