

# Product snapshot

## TFE1000

Data Acquisition and Recording



HaslerRail's range of on-board electronics can be interconnected to equip your rail vehicles with a fully networked system for data recording, speed sensing, data and energy management and visualisation

## TFE1000

### Intelligent driver authentication with secure smart card access

TFE1000 is a new card reader designed to fulfil the rigorous Italian requirements for the secure authentication of rail vehicle drivers. Additionally, it can permit / deny certain permissions based on the driver's license classification. A TFE1000 operated in conjunction with a TELOC data / event recorder is HaslerRail's solution for Driver Information Systems (DIS) for the Italian market.

The previous generation of card readers, TFE 106 and TFE 105, is now superseded by the TFE1000.

Features and functions at a glance:

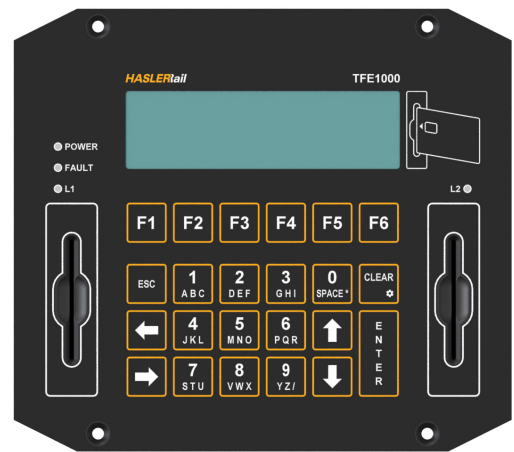
- Driver-DIS interaction via the keypad and backlit LCD display
- Driver profile identification and enabling
- Driver presence monitoring
- Vehicle parameter adjustment (dependent on driver status)
- Digitally sign for ZTEs (Zona Tachimetrica Elettronica)
- DIS functional status display
- TFE1000 Diagnostic status display
- Multi-language user interface
- Serial link to TELOC devices

TFE1000 is fully compliant with the strict requirements of the rail vehicle driving license system used by Italian operators Trenitalia and RFI and can digitally sign zones as required by the DIS standard.

This new generation TFE can read access authorisation data from standard smartcards (ISO/IEC 7816). Additionally, it can be extended via an optional port to securely interface with other authentication systems including biometric devices.

TFE1000 is the first product exclusively developed for HaslerRail's new Orange Technology Platform.

This platform, based on TELOC design, enables HaslerRail to have one design solution for multiple applications. This harmonisation enhances product security by developing controls and functional consistency in one product stream for deployment across a whole range of devices.



TFE1000 facia with card slots, keypad and colour display

#### Observed standards

EN 50155:2021	EN 61373:2010 +AC:2017-09
EN 50463:2017	EN 45545-2:2020
EN 50121-3-2:2016 + A1:201	IEC 62443-4-1/2
Specifica tecnica 371466	