

PANTOINSPECT

TECHNICAL SPECIFICATION

PantoTrace



Hardware Specifications

Main Purpose	Robustly identify train vehicles – combining RFID reader with IR illuminated images of the full side of the train
Placement	1.3 m – 2 m from the side of passing trains Approximately 1.5 above track level
Camera Type	Global shutter camera with built-in NIR filter
Camera Angle	Wide-angle (130°x110°)
Illumination	High power infrared flash (850nm) – Invisible to humans
RFID Reader Type	UHF RFID reader (860-930 MHz)
RFID Reader Range	> 4 m (adjustable)
RFID Protocol support	RAIN - EPCglobal Gen 2V2 (ISO 18000-63)
Max Train Speed	>175 km/h
Power Supply	1 x 230 V, 4 A, max. 500 W (consumption without heater: ~15 Watt)

Software Specifications

OCR Algorithm	Deep learning-based OCR for accurate text recognition
Text Recognition Accuracy	90% or higher, depending on letter contrast and dirt
RFID Data Retrieval	RFID data retrieved in real-time
User Interface	PantoClient – A web-based client for the PantoSystem PantoAPI – Http based API, suitable for system integration
Train ID data	RFID values, OCR based vehicle number, video from vehicle side
Data processing	Partly on device and partly on server
Connectivity	Ethernet, or cellular connectivity options

Physical Characteristics

Dimensions	400 mm x 600 mm x 213 mm (H x W x D)
Enclosure Material	Polycarbonate, IP65
Mounting Options	Various mounting options for easy installation
Maintenance	Easy to maintain and service with minimal downtime
Environmental	Operating temperature range: -20°C to 50°C

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INSTALLATION POLE MOUNTING KIT



PANTOTRACE DIMENSIONS

