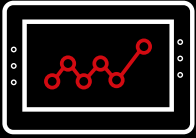




**K**VISION  
RAILWAY DMI RANGE



# DMI K-VISION

The K-Vision is a DMI/HMI/TOD range dedicated to all railway applications (train, tramway, subway) from 8.4" to 15", in TCMS, CCTV and Signaling (CBTC, ETCS...). Created for display and management of user controls, K-Vision products are intuitive, powerful and easy to use.



8.4"  
10.4"  
12.1"  
15"



### FLEXIBLE SOLUTION

- ✓ Mechanical integration
- ✓ Networks
- ✓ Resolution
- ✓ Keyboard/Touchscreen
- ✓ Processor

### MULTI-PLATFORM SYSTEM

System development compatible with different screen sizes and interfaces  
 You can use the same software on the different K-Vision platforms  
**Exist in 8.4", 10.4", 12.1" and 15"**

### PERFORMANCE VIDEO, NEW CPU

Thanks to its powerful CPU card (cortex Ag iMX6), K-Vision allows to manage up to 8 video flows simultaneously

### SUSTAINABILITY

Minimum 10 years availability

### RELIABILITY

MTBF 150 000h (IEC 62380)  
 Life time 15 years

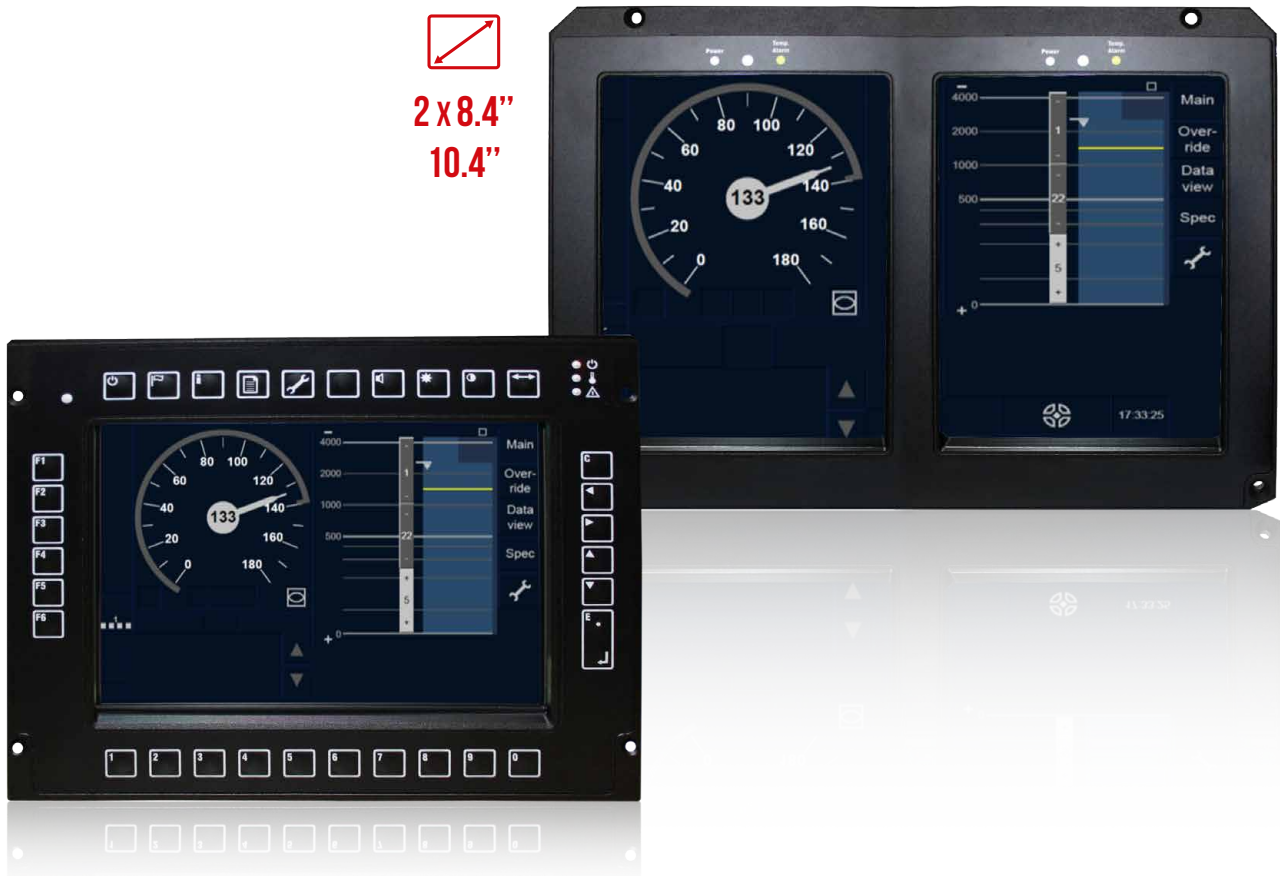
### PROVEN SOLUTION

More than 30 000 Centralp DMI installed around the world

# RAILWAY DMI RANGE

## DMI K-VISION SIL2

K-Vision SIL2 is a HMI platform in 8.4" or 10.4", with or without redundancy, which provides SIL2 display, interaction and computation. It is available with an ETCS baseline 3 DMI application on its latest version or as a generic platform for your application.



### INNOVATIVE SIL2 DMI BASED ON LINUX

Cost effective development on Linux environment  
Custom SIL 2 safety layer over the Linux kernel

#### Provides SIL2 guarantees against :

- ✓ Corruption of the applicative programme
- ✓ Memory corruption
- ✓ Clock drift
- ✓ Corruption by a Linux kernel fault
- ✓ Wrong information display
- ✓ Unwanted touch screen inputs

### GENERIC SIL2 PLATFORM

#### Flexible SIL2 display control

- ✓ Define safety-critical display area with predefined image checking
- ✓ Safety-critical display of safe widget
- ✓ Change non-safety related area without new certification
- ✓ Protected touchscreen or softkey input
- ✓ Safe generic container for application data & state

### BASELINE 3 ETCS DMI

#### Standard 10.4" display

- ✓ Customizable to EVC/DMI interfaces
- ✓ Easily configurable

#### Double 8.4" DMI

- ✓ High-availability with Fallback mode to keep train running in case of display failure
- ✓ Compliant to ERA Baseline3

IN PARTNERSHIP WITH  
**CLEARSY**  
SYSTEMS ENGINEERING

SPECIFICATIONS	CHARACTERISTICS
Power supply	24-110Vdc / 2200Vdc Insulation
CPU	Cortex Ag iMX6 800MHz, up to Quadcore
Memory	Up to 4GB DDR3 ; eMMC 8GB
Operating System	LINUX
Application software upload	USB link or Ethernet
Touch screen	Capacitive technology anti-glare "bi-touch" USB Interface
Thermoformed keyboard in front	Without or with 32 keys (UIC612) backlit by LEDs
Ethernet	2 x 10BaseT and 100BaseT Ethernet (IEEE 802.3 - 2002), 1500Vdc Insulation
Insulated serial link	1 x 232/422/485 RS, software-configurable 1500Vdc insulation, maximum speed of 115200bds
Non-insulated serial link (DP)	1 x RS 232, maximum speed of 115200bds
Audio Output	Mono, 10W under 8Ω, 100Hz to 10kHz, S/B > 80db, Distortion < 5 %, protection against short circuits
USB	1 OTG/Host High Speed/Full Speed/Low Speed 1 Host High Speed/Full Speed/Low Speed
Buzzer	Monotonic, 70dB measured at 10cms
Logical inputs	2 non-insulated coding inputs
Earthing	By stud M4
Sealing	Compliant to NF EN 61010-1 standard: - IP 65 Front panel - IP 41 Rear panel
Resolution	VGA or XGA
Display LEDs	3 LEDs (power supply, fault, alarm)
Light sensor	Measure from 3 to 70000lux
Front Panel Impact resistance	Minimum IK06

#### EMC ENVIRONMENT

- ✓ Compliant with **EN 50155** and **EN 50121** railway standards

#### CLIMATIC ENVIRONMENT

- ✓ Storage temperature: -50°C to +85°C
- ✓ Operating temperature: -40°C to +70°C TX classification of **EN 50155** standard
- ✓ Damp heat: +25°C to +55°C (95% HR)
- ✓ Saline fog: 96H

#### STANDARDS AND GUIDELINES

- ✓ Recording the **EN 45545** standard.
- ✓ **REACH** certificate with the (EC) regulation N°1907/2006.



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