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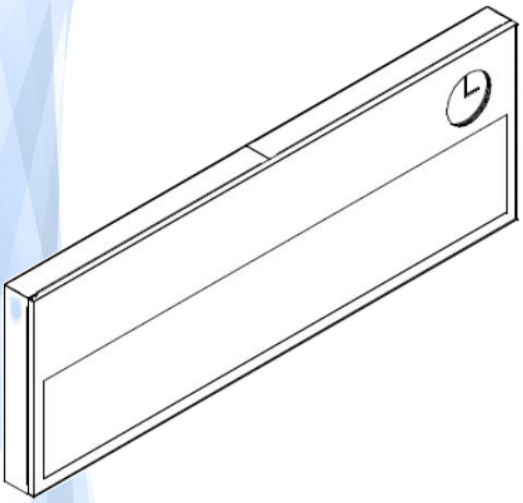
Catalog Card
Main Station Display
Husar WGS



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ISO 9001:2015 · IST/TS 22163:2017 · AQAP 2110:2016 · Świadectwo Bezpieczeństwa Przemysłowego · Koncesja MSWiA

PURPOSE, DEVICE CHARACTERISTICS

The main station displays Husar WGS is built on the basis of a professional one 46” LCD screen designed for 24/7 continuous operation. It is used to present information on the current implementation of the internal timetable (train arrival and departure times, numbers, commercial categories, train names, destination stations, intermediate stations, platform numbers, carriers, delays), as well as to present other important additional and alarm information. It can also be used to present tourist information or as a city guide.

The display is adapted to work indoors. The housing has a degree of protection IP-42. The design of the display prevents unauthorized access to the inside of the housing. The glass protecting the display screen is made of safety glass with an anti-reflective filter and a filter that prevents the interior of the device from heating up from sunlight. The built-in ambient light sensor is used to adjust the brightness of the screen. It has a builtin analog clock with a dial diameter of D=300 mm, equipped with a backlight system that ensures readability at dusk and in conditions of artificial lighting, and an ambient light sensor for switching on/off and adjusting the backlight level of the dial.

A highly efficient heating and cooling system is built inside the display, combined with humidity and temperature sensors, maintaining proper working conditions inside the display, regardless of the climatic conditions at the installation site.

❖The size of the displays (the number of lines of characters presented) should be adapted to the number and frequency of trains and the needs at a given station
❖12-line displays are recommended for stations with the highest volume of train traffic, 9-line or 6-line displays for smaller stations

The construction of the Main Station Display is fully compliant with the current guidelines of PKP PLK SA Ipi-6 and good practices of PKP SA

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TECHNICAL DATE

Technical parameters	
Matrix	LCD - 46"
Contrast	5000:1
Luminance	2500 cd/m² (set remotely or automatically based on sensor reading external lighting)
Observation angle	178°/178°
Vitality	80 000 h
Supply voltage	100 - 230VAC (±10%) 50-60Hz ±1%
Power consumption	700W/1,3kW\W
Security	residual current; overcurrent; overvoltage
Sensors	Indoor temperature and humidity, case opening, shock, light sensor, glass breakage
Controller	backlight, sensors, heating and cooling system, for analysis and implementation of CSDIP commands, equipped with a hardware and software watchdog
Protocols	TCP/IP; SNMP V1, V2 i V3; UDP; NTP
Clock	300mm dial analog round displayed in z board header adjustable dial illumination
Operating temperature range	-10°C do +45°C
Dimensions	Dependent on the number of display lines
Libra	350kg
Case	Made of corrosion-resistant material, painted in RAL 5022
Housing tightness	IP-42 (according to PN-EN 60529:2003)
Level of security	IK-07 (according to PN-EN 5012:2001)

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COMPLIANCE WITH STANDARDS

Study name	Number and title of the standard	Requirements
Luminance measurement average display	PN-ISO 9241-305:2009E Human interaction ergonomics and system - Part 305: Methods laboratory tests optical monitors electronic screens	Point 6.6.1 of the standard An average luminance of 300 cd/m2 is required for the minimum brightness level and 2500 cd/m2 for the maximum brightness level. It is allowed to conduct the test by an independent non-accredited test body
Measurement unevenness luminance display	PN-ISO 9241-305:2009E Ergonomics of human-system interaction - Part 305: Laboratory test methods optical monitors electronic screens	Point 6.6.3 of the standard Display backlight uniformity of at least 90% is required It is allowed to conduct the test by an independent non-accredited test body
Cold resistance	PN-EN 60068-2-1:2009 Environmental research. Part 2-1: Trials. Trial A: Cold	For external devices: Sharpness: -40oC For indoor units: Sharpness: -10oC
Dry resistance hot	PN-EN 60068-2-2:2009 Environmental research. Part 2-2: Trials. Test B: Dry heat	For external devices: Sharpness: +55oC For indoor units: Sharpness: +45oC
Resistance to humid hot cyclical	PN-EN 60068-2-30:2008 Environmental research. Part 2-30: Trials. Test Db: Damp heat cyclic	For external devices: Sharpness: +55oC Humidity: 95%
Resistance to sinusoidal vibration	PN-EN 60068-2-6:2008 Environmental research. Part 2-6: Trials. Fc test: Vibration (sinusoidal)	For external devices: Frequency: 3 - 40 Hz Amplitude: 0.2 mm Frequency: 40 - 100 Hz Amplitude: 0.03 mm
Impact resistant mechanical	PN-EN 60068-2-27:2009 Environmental research. Part 2-27: Trials. Trial of Ea: Strokes	For external devices: Shock acceleration: 2g Shock duration: 11 ms
Grade check IP protection	PN-EN 60529:2003/A2:2014-07 Degrees of protection provided by enclosures (IP code)	Device testing without negative pressure. 1. Main stations: IP42 2. Edge: IP65 3. Entrance platforms: IP65 4. Collective station: IP65 5. Multi-functional displays: IP65
Grade check IK protection	PN-EN 50102:2001 Degrees of protection by external mechanical impacts provided by electrical equipment enclosures (code IK)	For external device enclosures: IK09 (IK08 for multifunction display buttons) For indoor unit enclosures: IK07

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Measurement electromagnetic disorders conducted	PN-EN 55016-2-1:2014-09/A1:2017-12 Requirements for measuring equipment and disturbance measurement methods and immunity to disturbances - Part 2-1: Disturbance measurement methods and immunity tests - Conducted disturbance measurements	In accordance with the standards PN-EN 50121-1:2017-06 and PN-EN 50121-4:2017-04 Criterion B
Measurement electromagnetic disorders radial	PN-EN 55016-2-3:2017-06/A1:2020-01 Requirements for measuring apparatus and methods for measuring radio disturbances and immunity to disturbances - Part 2-3: Disturbance measurement methods and immunity tests - Disturbance measurements radiated	According to Norm PN-EN 61000-6-4:2019-12
Resistance to discharge electrostatic	PN-EN 61000-4-2:2011 Compatibility electromagnetic (EMC) - Part 4-2: Test and measurement methods - Immunity test electrostatic discharge	According to standards PN-EN 50121-1:2017-06 and PN-EN 50121-4:2017-04
Series resistance fast electrical states transitional	PN-EN 61000-4-4:2013-05 Compatibility electromagnetic (EMC) - Part 4-4: Test and measurement methods - Immunity test against bursts of electrical fast transients	According to standards PN-EN 50121-1:2017-06 and PN-EN 50121-4:2017-04
Impact resistant	PN-EN 61000-4-5:2014-10/A1:2018-01 Compatibility electromagnetic (EMC) - Part 4-5: Test and measurement methods - Surge immunity test	According to standards PN-EN 50121-1:2017-06 and PN-EN 50121-4:2017-04
Resistance to conducted disorders wired, induced by the field about frequencies radio	PN-EN 61000-4-6:2014-04 Compatibility electromagnetic (EMC) - Part 4-6: Test and measurement methods - Immunity to conducted disturbances induced by radio frequency fields	According to standards PN-EN 50121-1:2017-06 and PN-EN 50121-4:2017-04

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