IRMA MATRIX

GERMAN DESIGN AWARD SPECIAL 2019

The 5th generation of counting sensors from company iris. IRMA MATRIX reliably offers maximum accuracy thanks to its proven time-of-flight technology (ToF).

FEATURES

- 500-pixel sensor matrix with 3D Time-of-Flight Technology (ToF)

- HDR image processing

- Integrated processor (DSP) for signal processing and counting

- Detection and evaluation of passenger's statures (Object Analyzer)

- Simultaneous detection of the direction of motion for boarding and alighting passengers (regardless of door height or crowds)

- Support of the CAN and Ethernet interfaces, Power over Ethernet (PoE)

- System interface adapter available for IBIS, J1708 to be used in existing telematics systems

- WiFi possible (additional hardware required)

- IRMA MATRIX Surface mount version for time-saving retrofitting available

- Easy installation using only 2 screws in vehicles without any adjustment work

- No door contact necessary: counting begins via telegram from the OBC

- Just one sensor per door required (standard vehicle doors only)

- Due to the sensor's own emitted infrared light there is no dependency from low ambient light. Also in complete darkness, like with defect door lamps at night, the sensor will deliver accurate counting results.

- The installation requires no free blind range below the sensor

IRMA MATRIX surface mount version
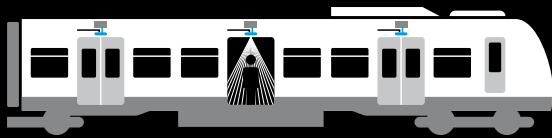
TRAINS
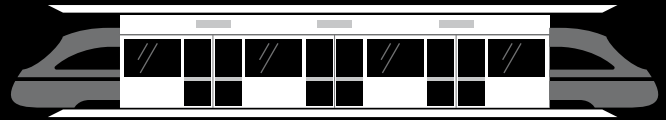
PLATFORM SCREEN DOORS

TRAMS

TROLLEY BUSES

BUSES

FERRYBOATS

APPLICATIONS

- Real time capture of passenger load

- Precise revenue sharing facilitated by highly accurate monitoring of transport services, based on revenue passenger kilometers (RPK) and height classification of passengers

- Demand-based management of fleet deployment

PASSENGER FLOW

TECHNICAL DATA

Specifications subject to change.
Technically binding is the particular product data sheet.

Dimensions (W × H × L)	• Sensor: 58 × 22 × 188 mm | see housing picture on the right
Housing	• Aluminum pressure casting housing • Optical openings made of synthetic materials (polycarbonat)
Protection class	• IP65 (IP67 on request)
Interface	• Ethernet, 100 Mbit/s • CAN, max. 125 kbit/s
Connection	• Interface: iris-connector (sCON)
Wiring system	• M12 connectors for Ethernet or CAN • cable according to EN45545-2 and EN50306
Type approvals, standards	• EN50155, ECE, CE, EN50121-3-2, EN45545-2, EMV-06
Vehicle integration / System architecture	• Ethernet via API, VDV301, direct UDP • CAN via API • Gateway to IBIS and J1708
Power supply	• 24 VDC or 48 V PoE • power consumption: typically 6 W; 8 W PoE
Weight without iris-Connector (sCON)	• Surface mount version: approx. 260 g • Flush mount version: approx. 340 g
Pixel	• 500
MTBF	• 1,2 million hours
Required external lighting	• 0 LUX
Minimum installation height	• Allowing passengers to pass upright underneath the sensor, < 1.80 m

Flush mount version sCON-S:
58 × 43 × 188 mm (W × H × L)

Flush mount version sCON-F:
58 × 36 × 188 mm (W × H × L)

Surface mount version sCON-S:
53 × 43 × 165.5 mm (W × H × L)

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