iWIM Data Logger

DESCRIPTION

The iWIM data logger enables acquisition and processing signals from wheels load and inductive loop sensors.
The logger is designed to operate with strain gauges and piezoelectric WIM sensors.
Depending on the configuration, the iWIM data logger ensures:

- vehicle parameters measurement, including e.g., vehicle mass, axle load, group axle detection, length,
- speed measurement in range: 0...250 km/h,
- weighing precision: A(5), B+(7), B(10) acc. to COST323,
- detection of incorrect passage,
- vehicles classification acc. to TLS 8+1 in the A1 class
  (other classification system such as EUR 13 or COST323 are available),
- configurable vehicle parameters
  limits in accordance with
  local regulations,
- dual tires detection / wheels width.

TECHNICAL DATA

Supply voltage	190 V – 264 V AC or 10.5 V – 32 V DC
Typical power consumption	20 W
Operating temperature range	-40 ... + 70 °C
Certificates / Compatibility	CE / EMC
Degree of protection	IP 54
Size (H x W x D)	130 x 440 x 215 mm
Rack height	3U
Static nonlinearity / Static measurement error	0.003%
Total harmonic distortion THD	0.024%
Communication	Gigabyte Ethernet with RJ45 connector, UART interface available
Supported sensors	Strain gauges, piezoelectric sensors, inductive loops
Number of channels	2 or 4 or 6

SOFTWARE / INTEGRATION

The iWIM data logger can be a separate device or it can be integrated with the WIM Pro system.

APM PRO provides the API specification necessary for WIM system integration.

The iWIM data logger can be integrated with meteorological systems and road condition sensors.

Learn more about WIM Pro

TYPICAL LAYOUT FOR ONE LANE

Application	Accuracy class	Classification	Dual tire detection	Vehicle position (tire-sensor contact point)	Layout Loop/Strain gauges/Piezo
Direct enforcement	A(5)	TLS 8+1 in the A1 class	yes	yes	
Pre-selection	B+(7)	TLS 8+1 in the A1 class	yes	yes	
Pre-selection	B+(7)	TLS 8+1 in the A1 class	no	no	
Statistics	B(10)	TLS 8+1 in the A1 class	yes	yes	
Statistics	B(10)	TLS 8+1 in the A1 class	no	no	
Statistics	B(10)	TLS 8+1 in the A2 class	no	no	

SAMPLE CHARACTERISTICS

Signal from strain gauges
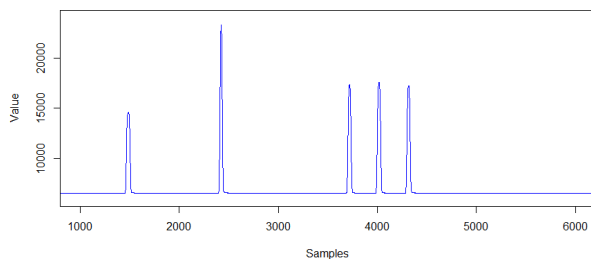
Signal from inductive loops
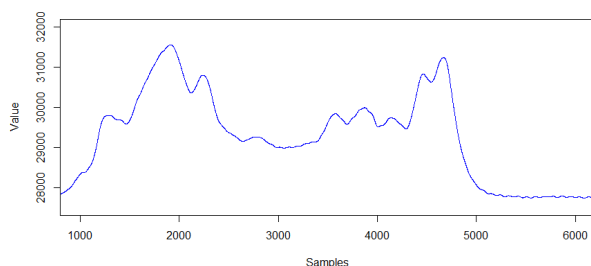
SAMPLE OUTPUT IN WIM PRO SOFTWARE