

Static/Dynamic Wheel Load Scale WL 104



The "All In One" scale for every application

Unbeatable large active area, which allows to seamlessly string together several scales. From dynamic to static, from pre-selection to legal weight controls, WL 104 has it all. Most modern fieldbus technology ensures fast and reliable data transfer to the evaluation unit.

Application	Weighing of wheel and axle loads of vehicles with pneumatic tyres in static mode or weighing in motion up to 20 km/h (LS-WIM). Two or more scales may be lined up to a seamless weighing strip.
Operation modes	Selectable by command: static: 2 weight values per second. dynamic: after the wheel has passed the scale, its weight and velocity are called and prepared for output
Ranges	0...10t per scale; 0...20t per axle
Speed range	0...20 km/h
Temperature range	-20...+60°C
Accuracy	Static: OIML No. 76 Class IIII Dynamic; prepared for OIML R134 (site dependent) Optionally with HAENNI works test report or intended for official test
Errors due to external factors	static: small external errors. dynamic: up to 10 km/h additional errors in the range of ± 2 to $\pm 5\%$ may occur due to vehicle oscillations. Up to 20 km/h even $\pm 10\%$ are possible.
Execution	Corrosion resistant aluminium alloys and stainless steel, water resistant IP 65
Supply	DC 12V
Interface	CANopen
Connection	Plug
Weight	20 kg
Platform height	17 mm

Operation

Because of its light weight, the wheel load scale WL 104 is easy to transport and can be used at any time without the need of ramps. Measurements are made on firm and level ground using levelling mats to ensure that all wheels of multiple axle systems are on the same level. As an alternative the scales may be placed into a recess in the pavement. The depth must be the same as the height of the scale to ensure that the platform surface is perfectly level with the pavement. Preferably the specially designed mounting frame is used.

In the normal case two scales are used, one for the left, the other for the right track of the vehicle. The platform size is large enough so that the driver encounters no problems to pass the scale within the active area. Another possibility is to line up three or more scales to a seamless weighing strip across the lane. This configuration enables to measure easily heavy haulage vehicles having different tracks compared to the pulling vehicle.

There is no display on the scale. The measured values are accessible via the interface. The further processing, visualisation and printout is performed by a connected personal computer with the processing software EC 200.

Official Test

The wheel load scale WL 104 complies with all relevant standards for an official approval.

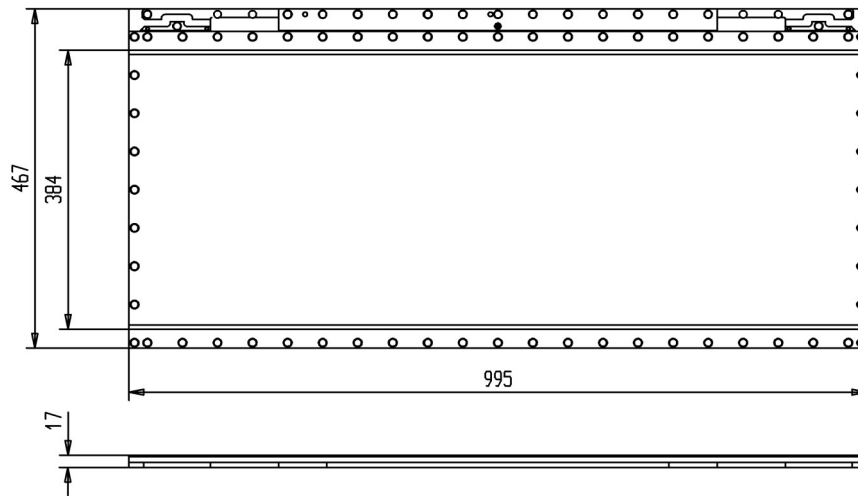
Selection Chart

Ordering example:	WL 104 / 4 1 1 . 1 1 1 / 10Y ...	
Temperature range and standart	- 20 ... + 60°C OIML No. 76 Cl.III 4 1 1 . 1 1 1	10Y
Ranges	0 ... 10t	
For official test	The ordering code is determined after the approval procedure	



Static/Dynamic Wheel Load Scale WL 104

Dimensions



Range	0...10 t	
Speed (dynamic weighing)	0...20 km/h	
Division	50 kg	
Accuracy static weight ²⁾	at first calibration	± 25 kg (up to 2,5 t) ± 50 kg (2,5 t...10 t)
	in operation	± 50 kg (up to 2,5 t) ± 100 kg (2,5 t...10 t)
Accuracy dyn. weight ³⁾	at first calibration	± 0.5 % of the measured weight
	in operation	± 1 % of the measured weight
	speed	± 2 km/h
Loading limit	15 t	
Permissible load per area	12 kg/cm ²	
Loading limit per area	24 kg/cm ²	
Operating temperature	-20°C +60°C	
Storage temperature	-30°C +60°C	
Electromagnetic susceptibility	according OIML No. 76 ¹⁾	
Zero tracking, test etc..	automatic according OIML No. 76 ¹⁾	
Type of protection (IEC 144)	IP 65	
Overrunable	completely overrunable incl. cable	
Operating site	Firm and level ground, max. 10 mm bend through, max. 5% slope (≈ 3°)	
Active surface	995 x 384 mm	
Over all dimensions	995x467x17 mm	
Power supply / consumption	DC 11.5...16V / 1.5W @12V	
Interface	CANopen	

- 1) OIML is the abbreviation for Organisation Internationale de Métrologie Légale.
- 2) The given values are intrinsic errors (difference between the measured weight and the real applied load) Additional errors in the range of 1...3% may occur depending on various external factors: quality of the levelling, of the site and of the vehicle. Refer to paper P1196.
- 3) Same as 2), but 2 to 5% for speeds up to 10 km/h. at higher speeds up to 20 km/h even 10% are possible!

