

CERTIFICATE

of EC type-approval of a non-automatic weighing instrument Number FI 98.1.01 Revision 1

Non-automatic Weighing Instrument

Issued by **Inspecta Oy**, PL 44, FIN-00811 Helsinki, Finland
Notified Body Number 0424

In accordance with The Council Directive 90/384/EEC on Non-automatic Weighing Instruments which in Finland is implemented by the Verification Law (vakaoslaki 219/65, amendments 321/92, 1127/93, 1383/94 and 1077/95) and the TTK regulations on non-automatic weighing instruments (TTK-määräys V10-92 and V1-93).

Issued to **Teknoscale Oy, Kiitoradantie 11 FIN - 01530 Vantaa, Finland**

In respect of A graduated, self-indicating, electronic, non-automatic weighing instrument.

Characteristics	Manufacturer	Teknoscale Oy
	Type	EVOCAR 2000 series
	Accuracy class	for class III $n \leq 1500$
	and number of verification intervals	and class III $n \leq 1000$
	Verification scale interval	$e = d$
	Maximum capacity	Max ≤ 20000 kg

Description The principal characteristics and approval conditions are set out in the descriptive Annex to this certificate.

Project number 122143

Valid until 27.5. 2008

Helsinki, 19. November 2001


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Measuring Engineer



DESCRIPTIVE ANNEX

of EC type-approval of a non-automatic weighing instrument Number FI 98.1.01 Revision 1

NAME AND TYPE OF INSTRUMENT

The weighing instrument is intended for weighing the axle and total load of a vehicle. The instrument is designated "EVOCAR 2000 series". It is a class **III** or **III** non-automatic, self-indicating, single-interval or multiple range electronic weighing instrument.

DESCRIPTION

Construction

The weighing instrument consists of following parts:

- Indicator
- Load cells
- Load receptor

Devices

- Device to check the display
- Semi-automatic subtractive tare weighing device
- Semi-automatic zero-setting device
- Automatic zero-setting device
- Initial zero-setting device
- Zero indicating device

TECHNICAL DATA

Model	EVOCAR 2000 series	
Accuracy class	III	III
Maximum capacity	Max ≤ 20 000 kg	20 000 kg
Minimum capacity	Min = 20 e	10 e
Number of scale intervals	n ≤ 1 500	1000 (n ≤ 500 without half pendulum load transmission)
Number of load cells	4	
Maximum subtractive tare	T = -Max	
Temperature range	-10 °C ... +40 °C	-20 °C ... +50 °C
Power supply	battery powered 12 VDC	

PERIPHERAL DEVICES AND INTERFACES

The weighing instrument may be equipped with one or more of the following protective interfaces

- RS 232
- RS 485
- current loop
- EVOLINK wireless data transmission system including EVODATA weighing program v. 6.0/xx. for wireless or cable data transfer.

Description of EVOLINK wireless data transmission system

The system is designated for wireless transfer of weighing data to the PC. The system consists of the following parts:

- EVOLINK data transfer system
- EVODATA weighing program, version v 6.0/xx

Communication between the PC and EVOLINK is done via RS232 connection and the data transfer between the EVOLINK and EVOCAR-2000 scales is done by radio transmission using radio frequency 433.925MHz. The transferred data is protected by checksum. As an additional protection the radio transmission is secured by a random number which is relayed from the EVOLINK to the scales and back together with other data.

EVOLINK functions as a buffer between the PC and the scales or if the system is used without the PC, EVOLINK controls, if necessary, the printer and filing the data for later use.

EVODATA weighing program is designated for use in PC with Windows operating system to define the weight of the whole vehicle combination.

EVODATA program controls that the weight values are stable and that the transmission is not interfered.

The weighing procedure is filed on the hard disk of the PC and later on it can be studied and printed out if needed. The data is filed in with a consecutive order, date and time and weighing data. After filing no alterations can be done. Program version v. 6.0/xx is shown on the display when the program used. The first part of the version number (6.0) changes when there are alterations made in the metrological part and the latter part (xx) changes when the alterations are done in appearance of the program e.g. change of language.

APPROVAL CONDITIONS

No parts of weighing instrument, no matter if they are mentioned or not, may be in conflict with the essential requirements of the appendix 1 of the Directive 90/384/EEC.

The weighing instrument is not approved for direct sales to the public.

LOCATION OF SEALS AND VERIFICATION MARKS

Verification marks

A green M-sticker and a sticker with verification marks may be placed near the keyboard and display.

Sealing

The indicator is sealed by a check number (ch xxxx). On power up the calibration and the Legal Set up configuration check number appears on the display. The same check number is on the stamping plate or on the name plate sealed by sealing sticker.

Non-verified peripheral equipment

If such equipment is connected to the weighing instrument, it shall bear a red M-sticker.

LOCATION OF CE MARK AND INSCRIPTIONS

A sticker with the CE mark of conformity is placed on the front panel.

The instrument bears markings according to the Annex IV in Council Directive 90/384/EEC in such a way that the markings can not be removed. Max_i , Min_i and e_i are marked near the indication device.

The weighing instrument bears the type-approval number FI 98.1.01, manufacturers name, accuracy class and serial number.

ILLUSTRATIONS

Figure 1. EVOCAR 2000 with EVOLINK system

