

EU Type Examination Certificate

No. 0200-NAWI-04010 Revision 1

BX23 / BX24 / BX25 / BX26 / BX30

NON-AUTOMATIC WEIGHING INSTRUMENT

Issued by **FORCE Certification**
EU - Notified Body No. 0200

In accordance with the requirements in Directive 2014/31/EU of the European Parliament and Council.

Issued to **BAYKON Endüstriyel Kontrol Sistemleri San ve Tic A.S.**
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In respect of Non-automatic weighing instrument designated BX23 / BX24 / BX25 / BX26 / BX30 with variants of modules of load receptors, load cells and peripheral equipment.
Accuracy class: III and IIII
Maximum capacity, Max: From 1 kg up to 500 000 kg
Verification scale interval: $e_i = \text{Max}_i / n_i$
Maximum number of verification scale intervals: $n_i \leq 10000$ for single-interval / multi-range / multi-interval (however, dependent on environment and the composition of the modules).
Variants of modules and conditions for the composition of the modules are set out in the annex.

The conformity with the essential requirements in annex 1 of the Directive is met by the application of the European Standard EN 45501:2015 and OIML R76:2006.

Note: This certificate is a revised edition of DK0199.581.

The principal characteristics and conditions for certification are set out in the descriptive annex to this certificate.

The annex comprises 21 pages.

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FORCE Certification references:
Task no.: 118-21979 and ID no.: 0200-NAWI-04644

3. Technical data

The weighing instruments are composed of separate modules, which are set out as follows:

3.1 Indicator

The indicators have the following characteristics:

Type:	BX23 / BX24 / BX25 / BX26 / BX30
Accuracy class:	III and IIII
Weighing range:	Single-interval, multi-interval (up to 3 intervals), multi-range (up to 3 ranges)
Maximum capacity (Max):	1 kg to 500 000 kg
Verification scale interval ($e_i =$):	≥ 0.1 g
Maximum number of Verification Scale Intervals (n_i):	≤ 10000 (class III), ≤ 1000 (class IIII)
Maximum subtractive tare effect:	-Max within display limits
Maximum additive tare effect (model BX30 only):	+XXXX.X (depend on configuration, see section 5.3)
Fractional factor:	$p'i = 0.5$
Minimum input voltage per VSI:	0.4 μ V
Excitation voltage:	5 VDC
Circuit for remote sense:	present on the model with 7-terminal connector
Minimum input impedance:	43 ohm
Maximum input impedance:	1200 ohm
Mains power supply:	90-240 VAC, 50/60 Hz, or 10-30 VDC. Internal rechargeable battery (optional).
Operational temperature:	-10 °C to +40 °C
Peripheral interface:	Set out in Section 4

3.1.1 Connecting cable between the indicator and load cell / junction box for load cell(s)

3.1.1.1 4-wire system

Cable between indicator and load cell(s): 4 wires (no sense), shielded

Maximum length: The certified length of the load cell cable, which shall be connected directly to the indicator.

3.1.1.2 6-wire system

Cable between indicator and load cell(s): 6 wires (sense), shielded.

Maximum cable length between indicator and junction box (J-box) for load cell(s), if any:

- Option 1: 4012 m/mm²

In case the (n) for the weighing instrument is less than (n) mentioned above, the following apply:

- Option 2:

Coefficient of temperature of the span error of the indicator: $E_s = 0.0012$ [% / 25K]

Coefficient of resistance for the wires in the J-box cable: $S_x = 0.0016$ [% / ohm]

$L/A_{max} = 295.86 / S_x * (emp / n - E_s)$ [m / mm²] in which $emp = p'i * mpe * 100 / e$

From this the maximum cable length for the weighing instrument may be calculated with regard to (n) for the actual configuration of the instrument.

Reference: See Section 10.

3.2 Load receptors, load cells, and load receptor supports

Movable platforms shall be equipped with level indicators or tilt switches.

3.2.1 General acceptance of analogue load cells

Any analogue load cell(s) may be used for instruments under this certificate of type examination provided the following conditions are met:

- 1) There is a respective Part / Evaluation / Test Certificate (EN 45501) or an OIML Certificate of Conformity (R60:2000) issued for the load cell by a Notified Body responsible for type examination under Directive 2014/31/EU
- 2) The certificate contains the load cell types and the necessary load cell data required for the manufacturer's declaration of compatibility of modules (WELMEC 2:2015), and any particular installation requirements). A load cell marked NH is allowed only if humidity testing to EN 45501 has been conducted on this load cell.
- 3) The compatibility of load cells and indicator is established by the manufacturer by means of the compatibility of modules form, contained in the above WELMEC 2 document, or the like, at the time of EC verification or declaration of EC conformity of type.
- 4) The load transmission must conform to one of the examples shown in the WELMEC 2.4 Guide for load cells.

3.2.2 Digital load cells

The digital load cells, which are listed below, are certified as modules in the weighing instrument.

Manufacturer	Load cell type	Cert. No.
Baykon	BR030SD / BR032SD	TC11239
Flintec	RC3D digital load cell	TC6586

3.2.3 Platforms, weigh bridge platforms

Construction in brief: All-steel or steel-reinforced concrete construction, surface or pit mounted
 Reduction ratio: 1
 Junction box: Mounted in or on the platform
 Load cells: Load cell according to Section 3.2.11 and 3.2.2
 Drawings: Various

3.2.4 Bin, tank, hopper and non-standard systems

Construction in brief: Load cell assemblies each consisting of a load cell stand assembly to support one of the mounting feet bin, tank or hopper
 Reduction ratio: 1
 Junction box: Mounted on or near the dead structure
 Load cell: Load cell according to Section 3.2.11 and 3.2.2
 Drawings: Various