

COMPATIBILITY OF MODULES

Ref.: WELMEC 2 (2000)

Non-Automatic Weighing Instrument, single-interval

Certificate of EU Type-Approval N°:

TAC: **DK0199.436**

INDICATOR	A/D (Module 1)	Type: MV2	
Accuracy class according to EN 45501 and OIML R76:	Class _{ind} (I, II, III or IIII)		III
Maximum number of verification scale intervals (n _{max}):	n _{ind}		6000
Fraction of maximum permissible error (mpe):	p ₁		0.5
Load cell excitation voltage:	U _{exc} [Vdc]		5
Minimum input-voltage per verification scale interval:	Δu _{min} [μV]		0.83
Minimum load cell impedance:	R _{Lmin} [Ω]		87
Coefficient of temperature of the span error:	Es [% / 25°C]		0.006
Coefficient of resistance for the wires in the J-box cable:	Sx [% / Ω]		0.0152
Specific J-box cable-Length to the junction box for load cells:	(L/A) _{max} [m / mm ²]		127
Load cell interface:	4-wire (no sense)		
Additive tare, if available:	T ⁺ [% of Max]		5
Initial zero setting range:	IZSR [% of Max]		-5 / 10
Temperature range:	T _{min} / T _{max} [°C]		-10 / 40
Test report (TR), Test Certificate (TC) or OIML Certificate of Conformity:	DANAK-1913746		

LOAD RECEPTOR	(Module 2)	Type:	Platform
Construction:			
Fraction of mpe:	p ₂		0.5
Number of load cells:	N		4
Reduction ratio of the load transmitting device:	R=F _M / F _L		1
Dead load of load receptor:	DL [% of Max]		10
Non uniform distribution of the load:	NUD [% of Max]		20
Correction factor:	Q = 1 + (DL + T ⁺ + IZSR ⁺ + NUD) / 100		1.45

LOAD CELL	ANALOG (Module 3)	Type: LFB-250M	
Accuracy class according to OIML R60:	Class _{LC} (A, B, C or D)		C
Maximum number of load cell intervals:	n _{LC}		3000
Fraction of mpe:	p ₃		0.7
Rated output (sensitivity):	C [mV / V]		2
Input resistance of single load cell:	R _{LC} [Ω]		350
Minimum load cell verification interval: (v _{min%} = 100 / Y)	v _{min%} [% of E _{max}]		0.02
Rated capacity:	E _{max} [kg]		125
Minimum dead load, relative:	(E _{min} / E _{max}) * 100 [%]		0
Temperature range:	T _{min} / T _{max} [°C]		-10 / 40
Test report (TR) or Test Certificate (TC/OIML) as appropriate:	R60/1991-DK-00.02		

COMPLETE WEIGHING INSTRUMENT		Type: 6856KGEU	
Manufacturer: Detecto			
Accuracy class according to EN 45501 and OIML R76:	Class _{WI} (I, II, III or IIII)		III
Fractions: p ₁ = p ₁ ² + p ₂ ² + p ₃ ² :	p ₁		1.0
Maximum capacity:	Max [kg]		300
Number of verification scale intervals:	n		3000
Verification scale interval:	e [kg]		0.1
Utilisation ratio of the load cell:	α = (Max / E _{max}) * (R / N)		0.60
Input voltage (from the load cells):	Δ _u = C * U _{exc} * α * 1000 / n [μV/e]		2.00
Cross-section of each wire in the J-box cable:	A [mm ²]		0.22
J-box cable-Length:	L [m]		5
Temperature range to be marked on the instrument:	Not required		
Peripheral Equipment subject to legal control:	T _{min} / T _{max} [°C]		

Acceptance criteria for compatibility			Passed, provided no result below is < 0	
Class _{WI}	<=	Class _{ind} & Class _{LC} (WELMEC 2: 1)	Class _{WI} :	PASSED
p ₁	<=	1 (R76: 3.5.4.1)	1 - p ₁ =	0.0
n	<=	n _{max} for the class (R76: 3.2)	n _{max} for the class - n =	7000
n	<=	n _{ind} (WELMEC 2: 4)	n _{ind} - n =	3000
n	<=	n _{LC} (R76: 4.12.2)	n _{LC} - n =	0
E _{min}	<=	DL * R / N (WELMEC 2: 6d)	(DL * R / N) - E _{min} =	7.5
v _{min} * √N / R	<=	e (R76: 4.12.3)	e - (v _{min} * √N / R) =	0.050
or (if v _{min} is not given)			Alternative solutions:	
(E _{max} / n _{LC}) * (√N / R)	<=	e (WELMEC 2: 7)	e - ((E _{max} / n _{LC}) * (√N / R)) =	
Δu _{min}	<=	Δu (WELMEC 2: 8)	Δu - Δu _{min} =	1.17
R _{Lmin}	<=	R _{LC} / N (WELMEC 2: 9)	(R _{LC} / N) - R _{Lmin} =	1
L / A	<=	(L / A) _{max} ^{WI} (WELMEC 2: 10)	(L / A) _{max} ^{WI} - (L / A) =	347
T _{range}	<=	T _{max} - T _{min} (R76: 3.9.2.2)	(T _{max} - T _{min}) - T _{range} =	20
Q * Max * R / N	<=	E _{max} (R76: 4.12.1)	E _{max} - (Q * Max * R / N) =	16.3

Signature and date:

Conclusion PASSED

This is an authentic document made from the program:
"Compatibility of NAWI-modules version 3.0".