

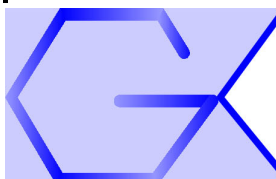


Manual

Scale Terminal WT158



Manual_WT158_V1.0.1.Doc



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1 Operation instruction for Explosion protected control panels

Application and Standards

This instruction manual applies to explosion protected control panels of type of protection types below. This apparatus is only to be used as defined and meets requirements of EN 60 079 particularly EN60 079-14 "electrical apparatus for potentiality explosive atmospheres". It can be used in hazardous locations which are hazardous due to gases and vapours according to the explosion group and temperature class as stipulated on the type label. When installing and operating the explosion protected distribution and control panels the respective nationally valid regulations and requirements are to be observed.

General Instructions

The control panel has to have a back-up fuse as stipulated. The mains connection must have a sufficient short circuit current to ensure safe breaking of the fuse. To achieve an impeccable and safety device operation, please take care for adept transportation, storage and mounting, as well as accurate service and maintenance. Operation of this device should only be implemented by authorised persons and in strict accordance with local safety standards. The electrical data on the type label and if applicable, the "special conditions" of the test certificate PTB 01 ATEX 1742 are to be observed.

For outdoor installation it is recommended to protect the explosion protected distribution and control panel against direct climatic influence, e.g. with a protective roof. The maximum ambient temperature is 40°C, if not stipulated otherwise.

Intrinsically Safe Circuits

Erection instructions in the testing certificates of intrinsically safe apparatus are to be observed. The electrical safety values stipulated on the type label must not be exceeded in the intrinsically safe circuit. When interconnecting intrinsically safe circuits it is to be tested, whether a voltage and/or current addition occurs. The intrinsic safety of interconnected circuits is to be ensured. (EN 60079-14, section 12)

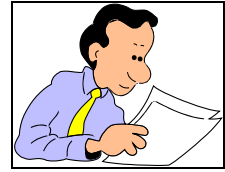


Safety Measures: to read and to comply

Work on electrical installations and apparatus in operation is generally forbidden in hazardous locations, with the exception of intrinsically safe circuits. In special cases work can be done on non-intrinsically safe circuits, on the condition that during the duration of such work no explosive atmosphere exists. Only explosion protected certified measuring instruments may be used to ensure that the apparatus is voltage-free. Grounding and short circuiting may only be carried out, if there is no explosion hazard at the grounding or short circuit connection.



2 Scale terminal WT158



2.1 Short description of WT158

The scale terminal WT158 is a low cost indicator of a scale in hazardous area. It has a signal input for a weight cell, a 5 digit 7 segment display and 4 keys. The housing protection class of the WT158 against dust and humidity is IP65.

The front keys allow a direct net / gross / Tare switching as well as change of the weight dimension. The device can be configured and scaled by buttons and display.

Optional the WT158 has a TTY interface or an analogous 0/4 .. 20 mA output to transmit the weight data. The digital EEx i open collector output can be used for scale limit monitoring. If the scale exceeds the maximum (or the minimum) limit the output will change its state. It is possible to choose normal open or normal closed condition.

2.2 Block diagram

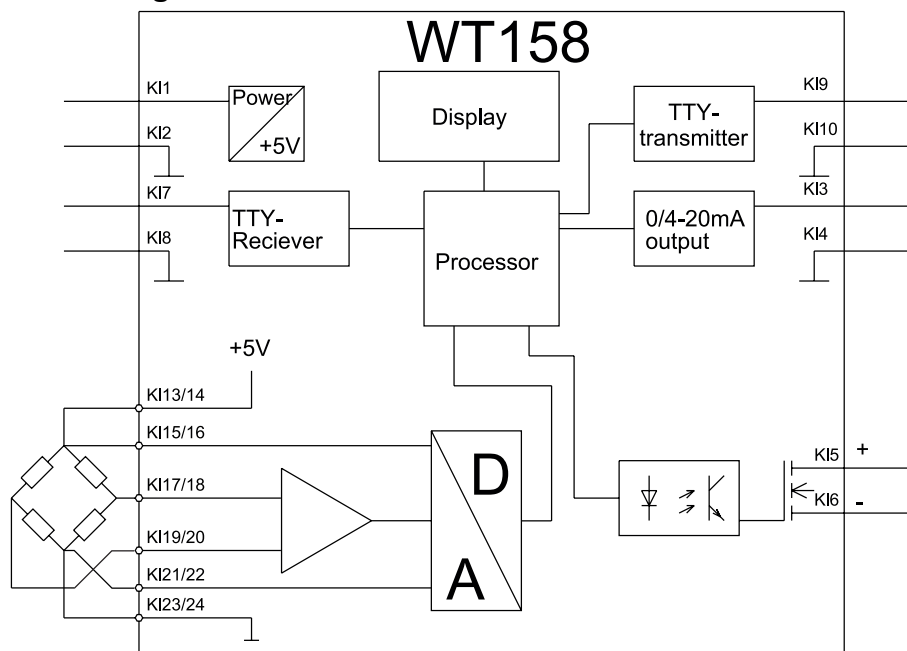


Figure 1: Block diagram

2.3 Scale monitoring

The scale terminal WT158 possesses an automatic scale monitoring. It has the ability to monitor a scale maximum or minimum. If limit is exceeded the display shows a blinking arrow (Min- \leftarrow rep. Max- \rightarrow) and the digital output changes his state. The switch behaviour is equipped with an adjustable hysteresis and time delay.

Additionally the scale is monitored in case of overload. If overload occurs a $\boxed{\text{MAX}}$ Symbol starts to blink. A scale overload is a measure signal bigger than the span.

2.4 Code words

The configuration and parameters of the WT158 are protected by two code words

1. the lower level code word protect only the Parameter menu (PCODE). The parameter menu contents at the current software version only the limit of the scale monitoring.
2. the higher level code protects the complete configuration of the WT158.

2.5 Analogue 0/4 .. 20 mA interface (Option)

The analogous output is proportional to the displayed value. It is possible to put out the net or the gross value.



2.6 Modbus- interface (Option)

The WT158 works only as modbus- slave. Define the slave address in the bus menu of the WT158.

2.6.1 Registers

The WT158 uses only "Holding registers" to transmit measure data and commands. The registers are defined as below:

Register (Hex)	Access	Data format	Function
40001	R/W	Bit	Ctrl- Flags: Bit 0: Set Tara Bit 1: Set zero
	R	Bit	Info-Flags: Bit 8: limit exceed Bit 9: scale overload
40002	R	Floating point	Gross- displayed value
40003			
40004	R	Floating point	Net- displayed value
40005			
40006	R	Floating point	Tara (= Gross – Net)
40007			
40009	R/W	Floating point	limit
4000A			
4000B	R/W	Floating point	manual- Tara
4000C			

Remarks

- The read only (R) signed Bits in register 40001 are write protected. That means you don't have to take care of them while a write command. To write the floats use function 16 „Preset Multiple Registers“. Write always both register by each command otherwise the WT158 don't accept it.

2.6.2 Functions

The WT158 supports the following Modbus functions:

Function number	Function
3	Read Holding Registers
6	Preset Single Register
16	Preset Multiple Registers

2.6.3 Hardware

The WT158 uses Modbus RTU with adjustable Baud rate via TTY. The interface can have none, even and odd parity, selectable in the bus menu.

3 Mounting und connection



3.1 Mounting

The WT158 is dedicated for mounting and working in hazardous area zone 1. Please use the 4 holes on the rear for mounting and use a solid base



NB

Observe local safety guidelines and the regulative VDE DIN 57 165

See hole distances below:

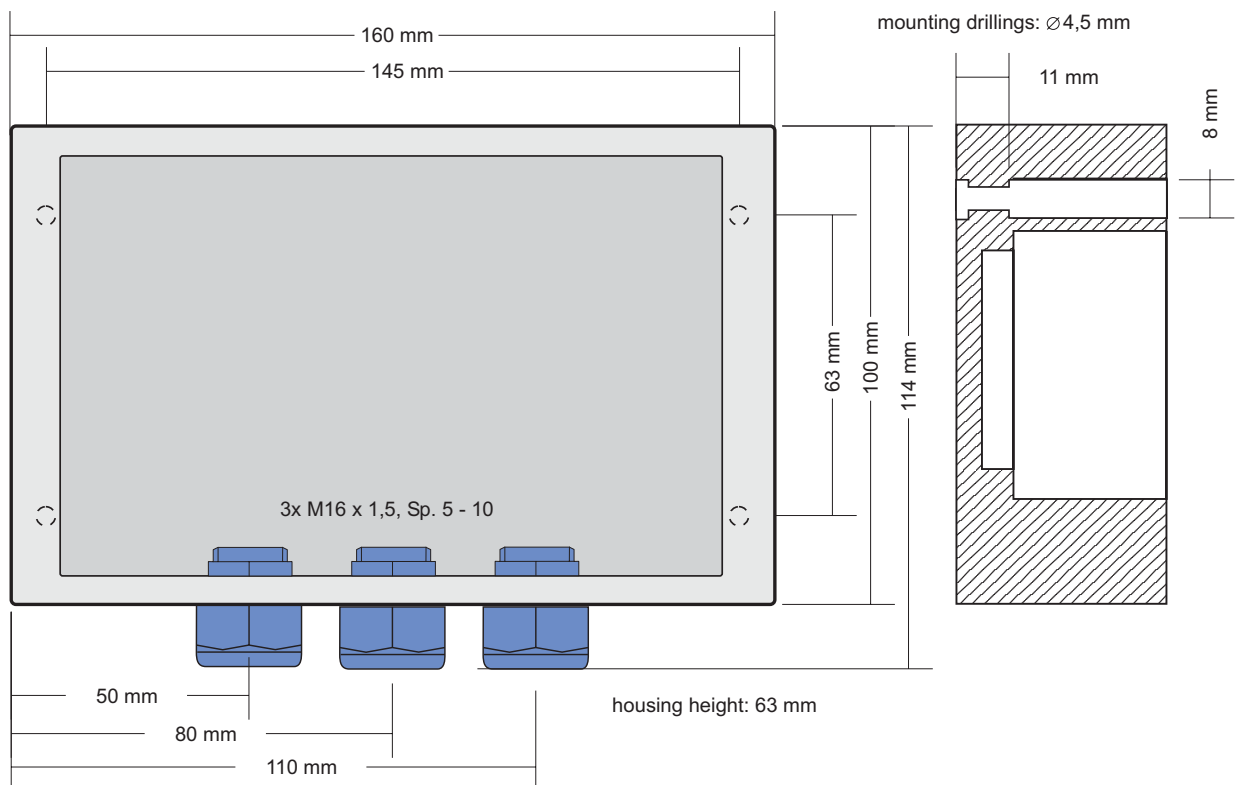


figure 2: Dimensions

3.2 Wiring



NB



NB

Please note the following Standard of Compliance: PTB 01 ATEX 1742 and the regulative VDE DIN 57 165

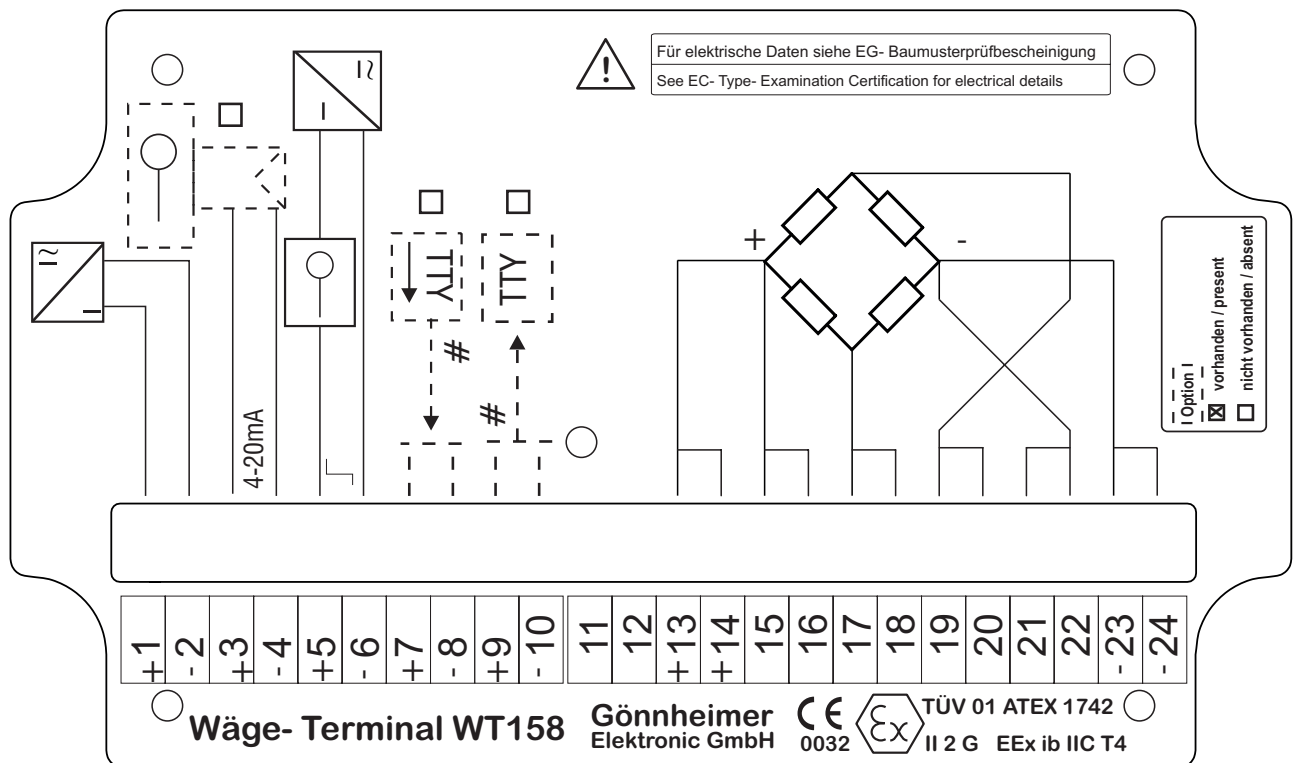
Do not exceed terminal safety limits of any terminal.

See terminal limits on table 6.1 in the annex or the standard of compliance

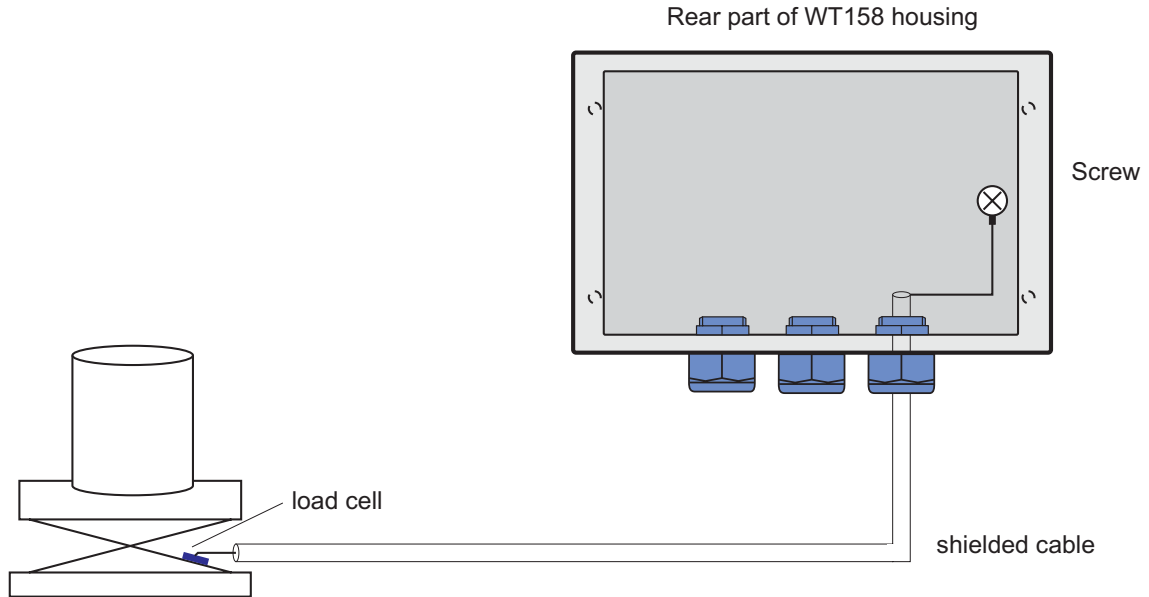
3.2.1 Terminals of WT158

Terminal	Description
1 +, 2 -	Supply of the WT158
3 +, 4 -	Analogous output (option)
5 +, 6 -	Digital (binary) Transistor output
7 +, 8 -	TTY- Receiver
9 +, 10 -	TTY- Transmitter
11, 12	Unused
13 +, 14 +	bridge supply +
15, 16	Reference input +
17, 18	Bridge out +
19, 20	Bridge out -
21, 22	Reference input minus
23, 24	bridge supply minus

3.2.2 Rear inside and connection schema of WT158



3.2.3 Connection of shielded cable to load cell



3.3 Supply of WT158

The WT158 needs an intrinsically safe power supply with a maximum voltage U_0 of 30 V and maximum current I_k of 110 mA. The power is limited to 2 Watts.

The power consumption depends on type and amount of the additive options. The basic current consumption (WT158.0.0.0) is about 20 mA at 10 V voltage load plus the current for the load cell. The current consumption of the load cell is a direct function of the resistance of the load cell. See below:

$$I_{load\ cell} = \frac{5V}{R_{load\ cell}}$$

instance: The load cell have a resistance (R) of 700 Ω . The additional current is therefore 7,2 mA.

Additional to the basic current consumption the consumption increases by each option of the WT158. See the table below with some examples of configuration:

Hardware- Configuration des WT158	Needs on power supply
	SG
<i>basic configuration</i> WT158.0.0.0 + 700 Ω load cell	$U \geq 10\text{ V}, \quad I \geq 28\text{ mA}$
+ Analogous output WT158.1.0.0 + 700 Ω load cell	$U \geq 10\text{ V}, \quad I \geq 28 + 20 = 48\text{ mA}$
+ TTY- interface WT158.0.1.1+ 350 Ω load cell	$U \geq 10\text{ V}, \quad I \geq 34 + 20 = 54\text{ mA}$
<i>example- configuration:</i> WT158 + Analogous output + TTY- interface WT158.1.1.1+ 700 Ω load cell	$U \geq 10\text{ V}, \quad I \geq 28 + 20 + 20 = 68\text{ mA}$

3.4 Starting and Parameter defaults

Level 1	Parameter	content	Comment
Language	Language	deutsch	
Unit	Unit	„g“	The unit for load is shown by Barcode segments
	Decimal point	9999.9	
scale- units	Step	001	Step of indication, the indication changes if the measurement differs higher than step
	Range	1000.0 [g]	Range of the balance
	Manual tara	No	Manual tara
<i>Only by calibrated option</i>	Auto zero	No	Auto zero according EN 45501
	Zero at start up	No	Set display to zero while starting
	Fti. (Filter)	32	
	Polarity	positive	Polarity of bridge load
	„b-Par“	1.0 [mV/V]	Sensibility of the load cell
	C-Point	1000.0	
Limit monitoring	Max / Min	Max	
	Limit valve	1000.0[g]	
	Hysteresis	1.0 [g]	
	Delay	0 [s]	
	No - nc	no- / -	
Analogous output	gross / Net	Net	Choose gross or net
	0/4 .. 20 mA	4 ..20 mA	
Modbus	S-Address	001	Slave address
	Data rate	9600	
	Parity	none	
	Swap- float	No	
Code	S-Code	00001	
	P-Code	00002	

3.5 Reset



Reset

Reset the WT158 to its ex work configuration as follows: press the “ENTER” key while you're switching on the power supply.

While Resetting the WT158 shows



4 Operation manual

The user has a total control of the WT158 by the use of the front keys.

4.1 LC- Display

The WT158 has 5 figure numerical display with a Bargraph. The Bargraph shows the load in a analogous way. The load unit as well as the gross/ net indication are selected with Bargraph segments.

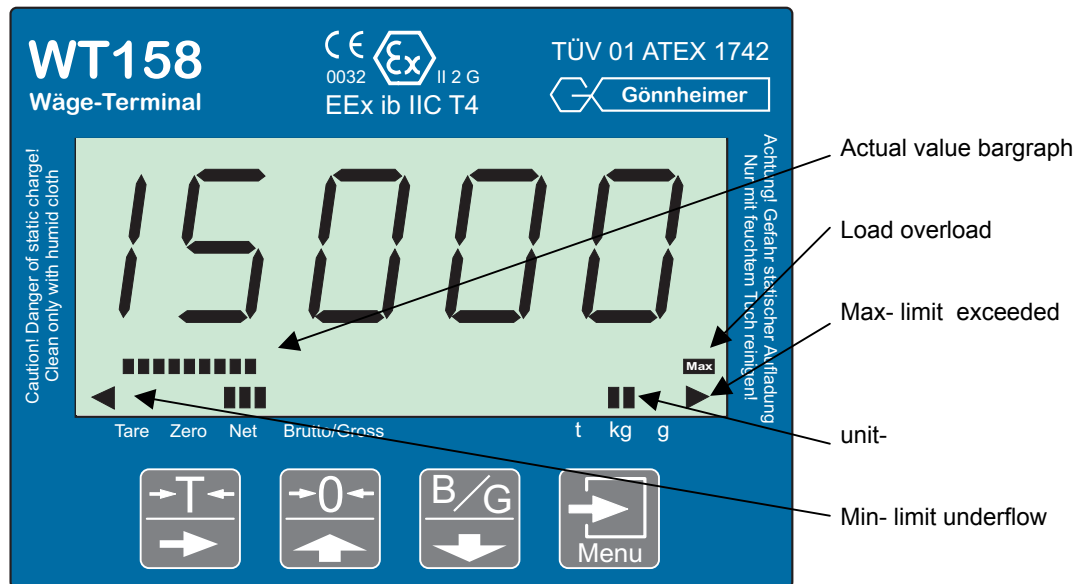


Figure 3: Front of the WT158

4.2 Keyboard

Key	Name	state	Function
	ENTER-	On operation menu	Start des Structure- resp. Parameter menu (Code word- necessary) Confirm the input / return form lower menu to higher menu respectively next menu item.
	TARE-	On operation While entering a value	The actual displayed value will be set as tare ¹ . The Cursor move right
	Zero-	On operation While entering a value	The display is set to zero Increases the blinking figure
	Gross/- Net	On operation While entering a value	The display shows the gross weight as long the button is pressed Decreases the blinking figure

¹ Only if „manual tare“ is turned off. If not, customer must enter tare manually.

4.3 Parameter and Configuration

This part comments the menu parameters. See also the flow chart in Section 5 for more information

Start parameter menu with the "ENTER-" button. The ex- works code word is "0001". Confirm code with the "ENTER-" button then the main menu appears:

Menu- item	Sub menu- item	Menu- Parameter	Comment
Lang.	Eng.		Choose the language of the customer. Available are German, English, French and Dutch
Units			The units menu contains the basic balance units
	Unit	-	For the balance unit is „t“, „kg“ oder „g“ available. Regard that only the bargraph segment change the position
	dP.POS	99.999	Change the decimal point position with the TARA- key.
Balan			The sub menu "Balance" contains specific balance parameters
	STEP	005	Step of indication: the indication changes if the measurement differs higher than step
	RANGe	99999	Enter here the total range of the balance (0 ... X kg)
	tA.nn.a	tA.nn.y	„tA.nn.a“ is the abbreviation for manual tare set. Manual tare set means that the user must enter the tare via the keys.
		tA.nn.n	"Manual tare set – No" means that the tare can be set by pressing the "tare-key" on the front.
Attention only by calibrated option	AS.	AS.y	Auto zero according EN 45501. With this function the scale will be set to zero each second. Precondition: the display shows already zero and the internal value is not larger then 4% of the range
		AS.n	Disables the Auto zero function
	Nu.EIn	nuL.y	Set display to zero while starting
		nuL.n	Disables zero while starting

FIL.	99	The filter works as a high frequency rejection of the load cell signal. Maximum is 99 usually 32 is a good choice
PoLA	P POS	Polarity of load cell output. Use this function the change the polarity of the load cell signal
	P NEG	
b-PAR	99999	„b-Par“ defines the sensibility of the load cell. The unit is mV/V. The range is 00.000000 up to 99.999999
A-Pu	99999	“Adjustment point” this value is needed for the next menu item (balance calibration). Load the balance with the weight defined here
CALIB	rEL.	The balance calibration is necessary if the sensibility is not known. First release the balance totally. If done press the “Enter- key”. The zero offset needs some seconds while the display shows “run”.
	run	
	LoAd	Now load the balance with the weight defined in item „range“. Press the enter-key and wait a few seconds, while keep away any disturbances from the balance.
	rEL.	Enter this item to make a balance zero calibration First release the balance totally. If done press the “Enter- key”. The zero offset needs some seconds while the display shows “run”.
	run	
Linn		The sub menu Limits contains the parameters of the digital output (balance monitoring output).
LH-L	Li-Lo	Defines minimum (Li – Lo) or maximum (Li – Hi) monitoring
Linn	99999	Enter here the limit valve. Valid limits are between 0 and range.
HYST	001.50	Enter here the hysteresis of the digital output. The example shows a Hysteresis of 1.5 kg.
DELAY	99	Enter here the time delay of the digital output. The unit is second. Maximum delay is 99 s.
no-nc	nc - - -	Choose the output status nc (= normal closed) or
	no- / -	no (= normal open)

OUT-A

Ag-n

net

This sub menu appears if your WT158 has the analogous output option.

Choose net or gross output signal

AO-4

0-20

Choose 0 ..20 or

4-20

„Live- Zero“ 4 .. 20 mA Signal

Bus

SAddr

001

This sub menu appears if your WT158 has the modbus interface option.

Set the modbus address „SAdr“

bAud

9600

Set the data rate to 9600, 4800, 2400, 1200 or 600 bit/sec

PAR1

none

The Parity of the serial Interface can be „none“

Even

„even“ or

Odd

„odd“

 **Attention**

SFLo

SFLo.Y

The stopp bit of the serial interface is fixed to **one Stopp bit**

The WT158 values are configured as a float (SFLo = swap Float)

SFLo.n

The menu item the words of the float can be swapped

CodeS

SCode

Define the structure code word here. Enter any number except the “0000”.

PCode

Define the parameter –Code word here. Enter any number. The code “0000” deactivates the P- code

5 flow charts

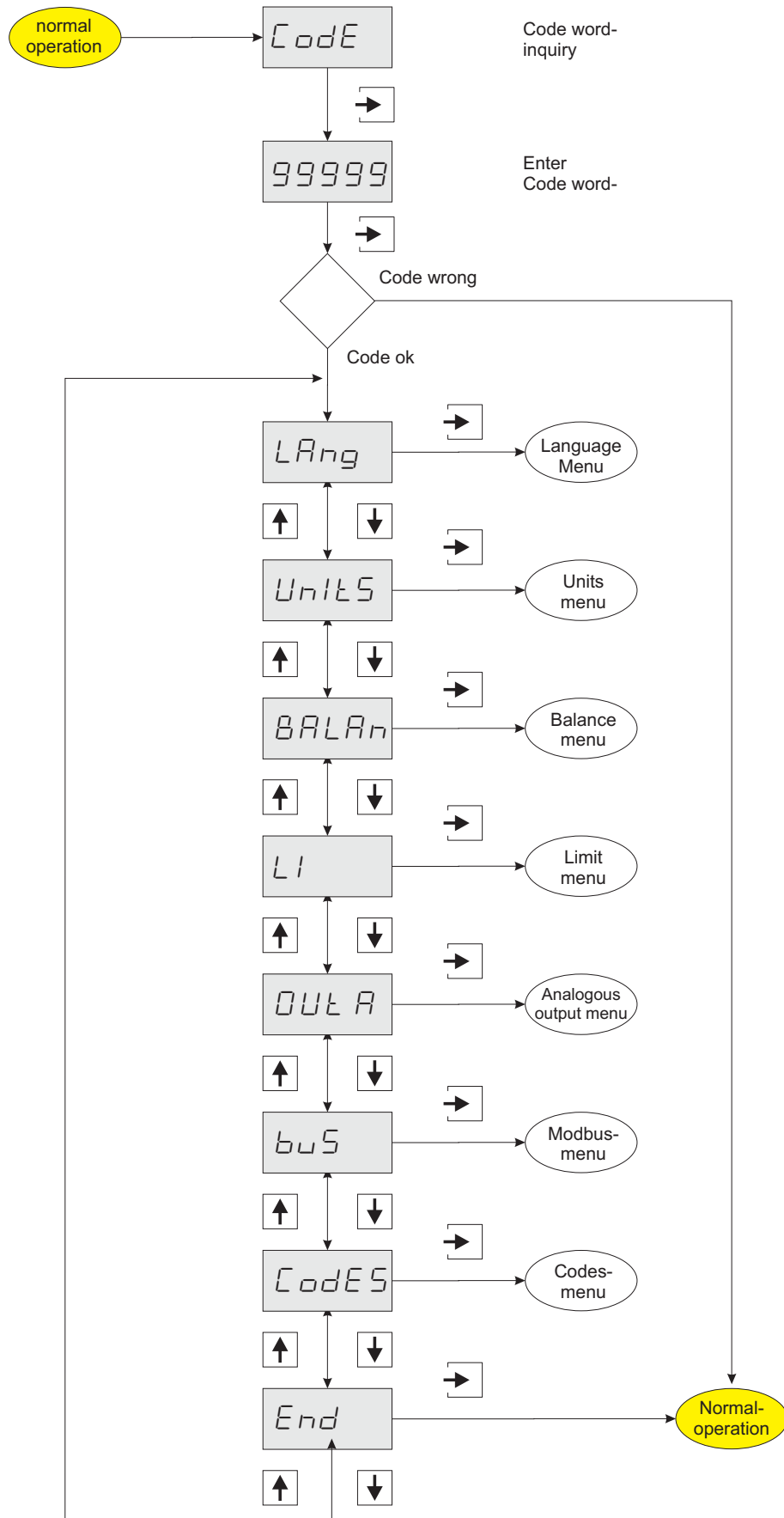


Figure 4: Flow chart main menu

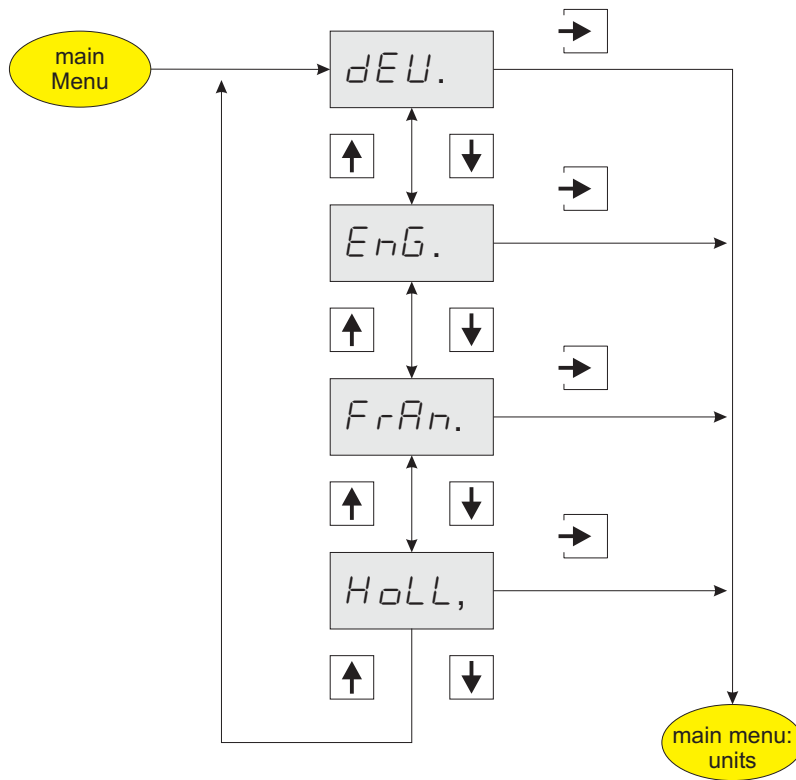


Figure 5: Flow chart language menu

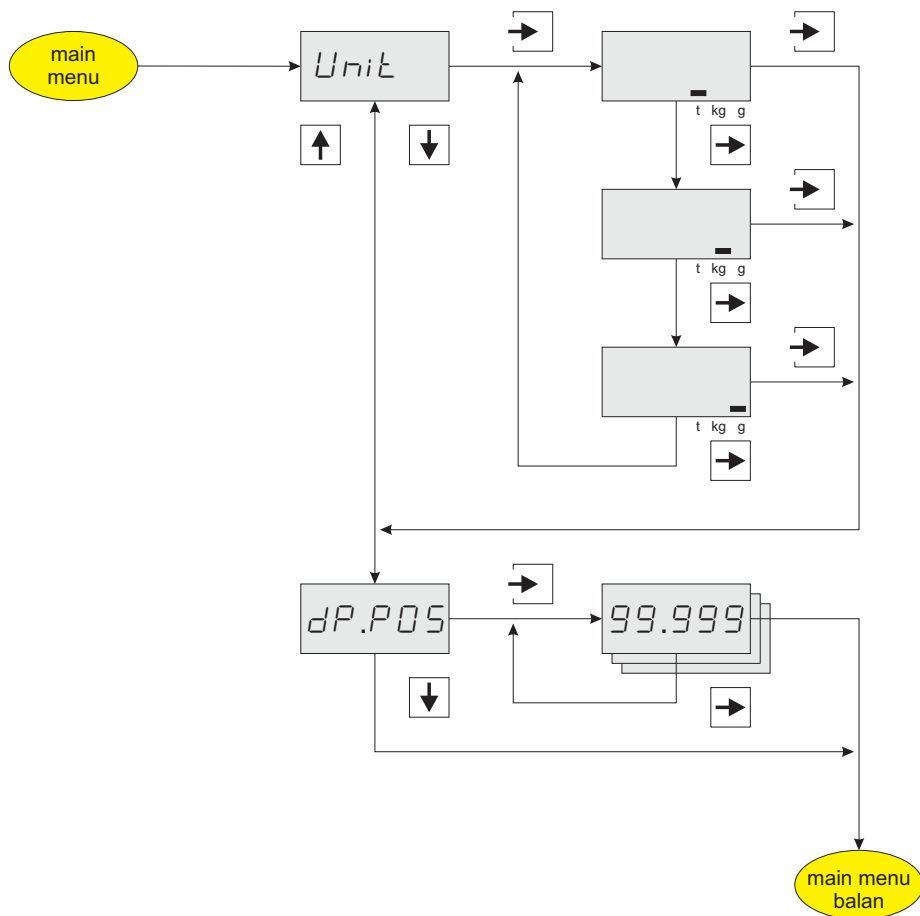


Figure 6: Flow chart units menu

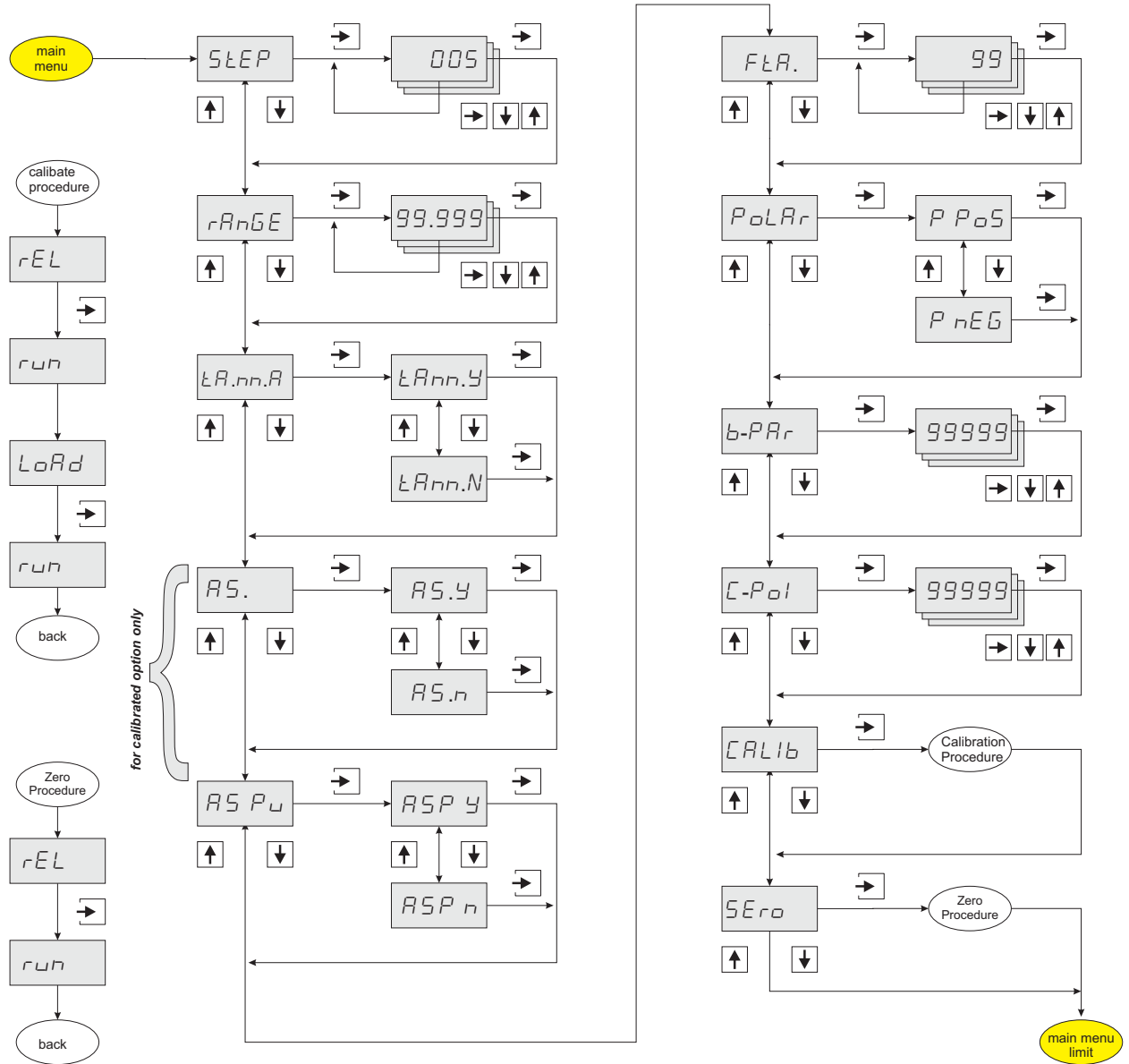


Figure 7: Flow chart balance menu

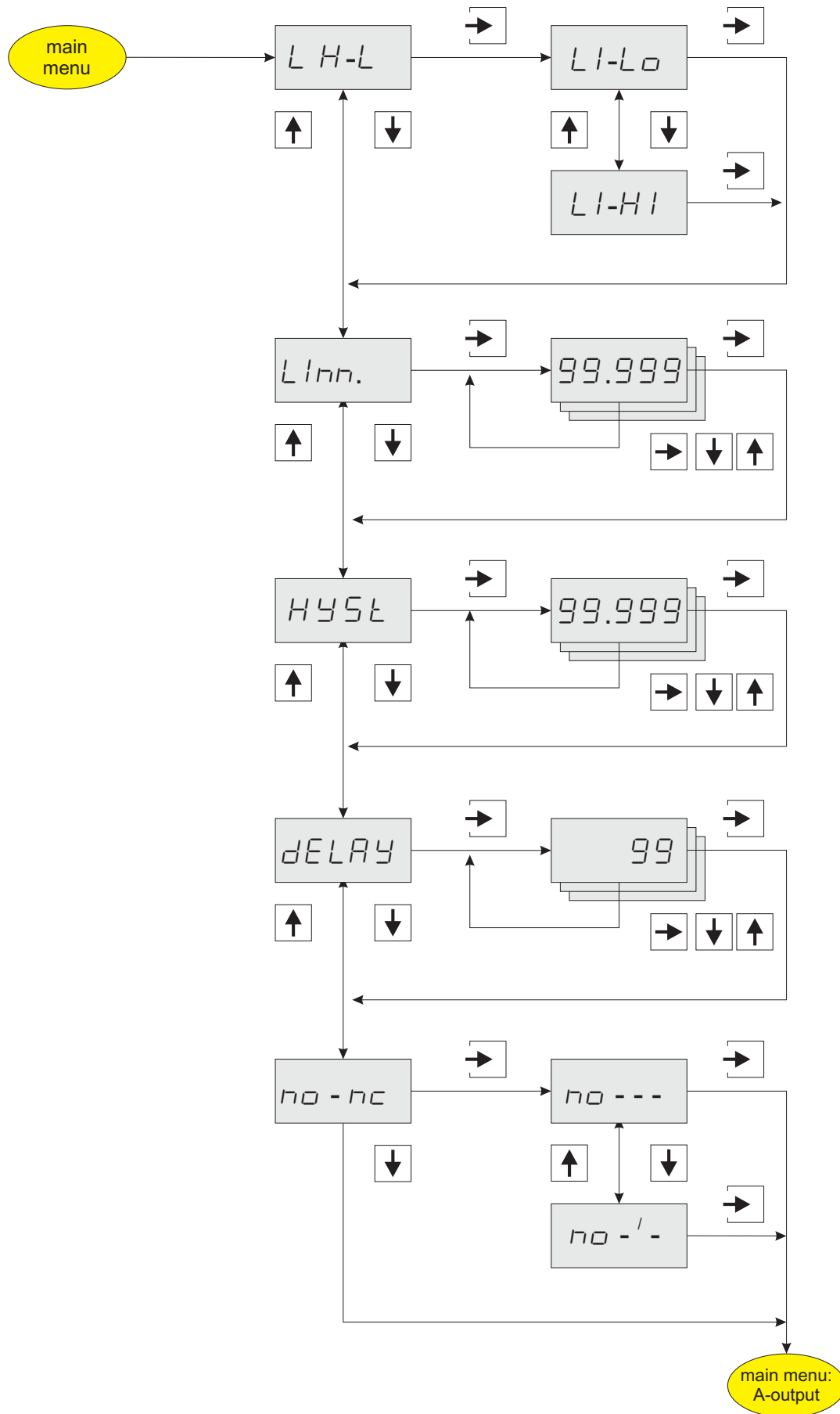


Figure 8: Flow chart limit monitoring menu

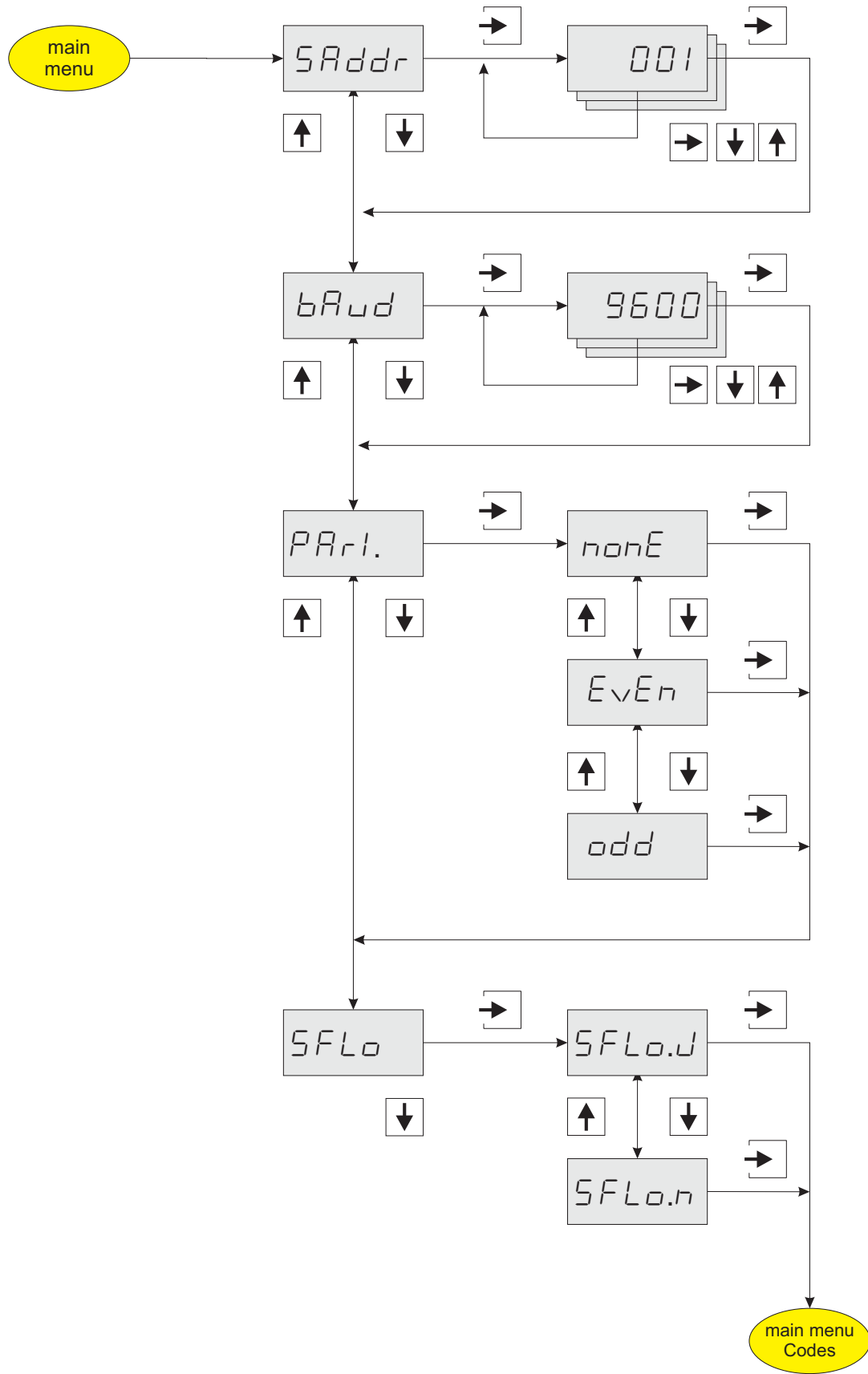


Figure 9: Bus- Interface menu

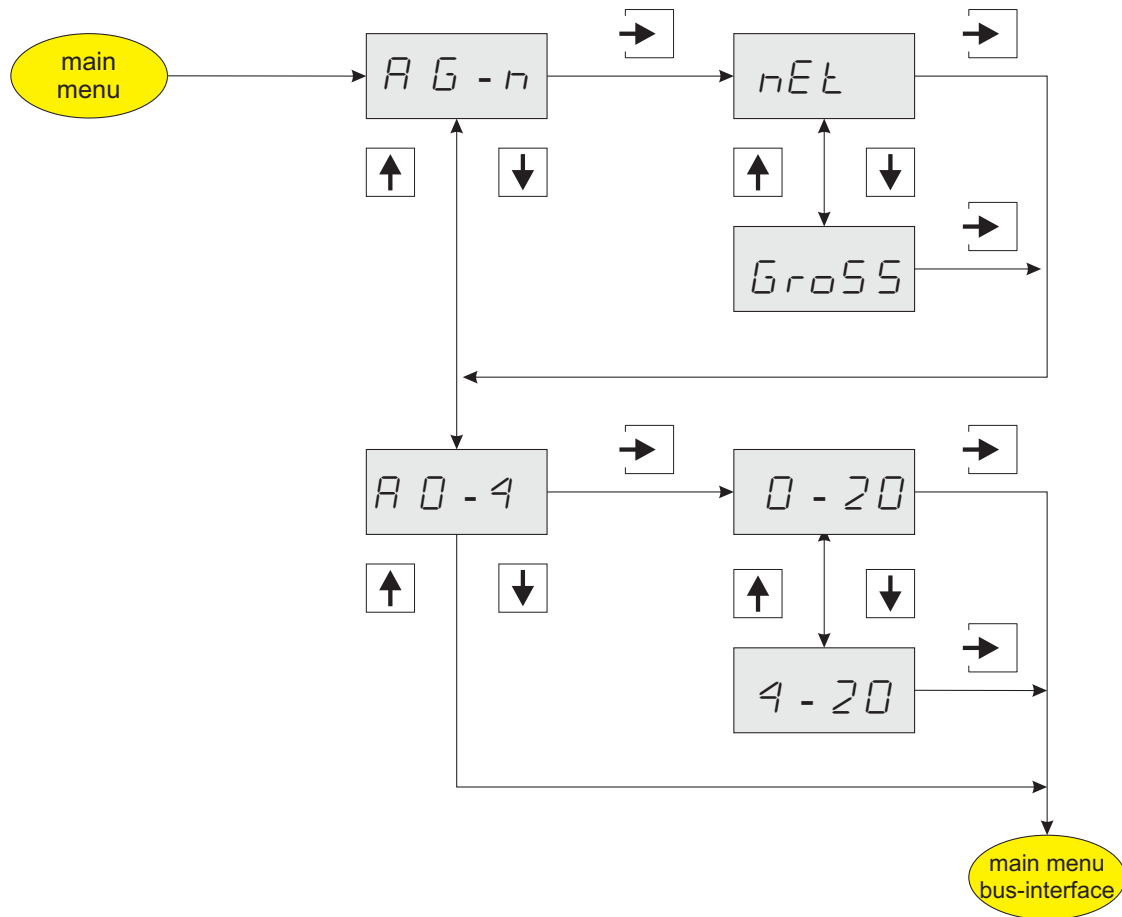


Figure 10: Analogous output menu

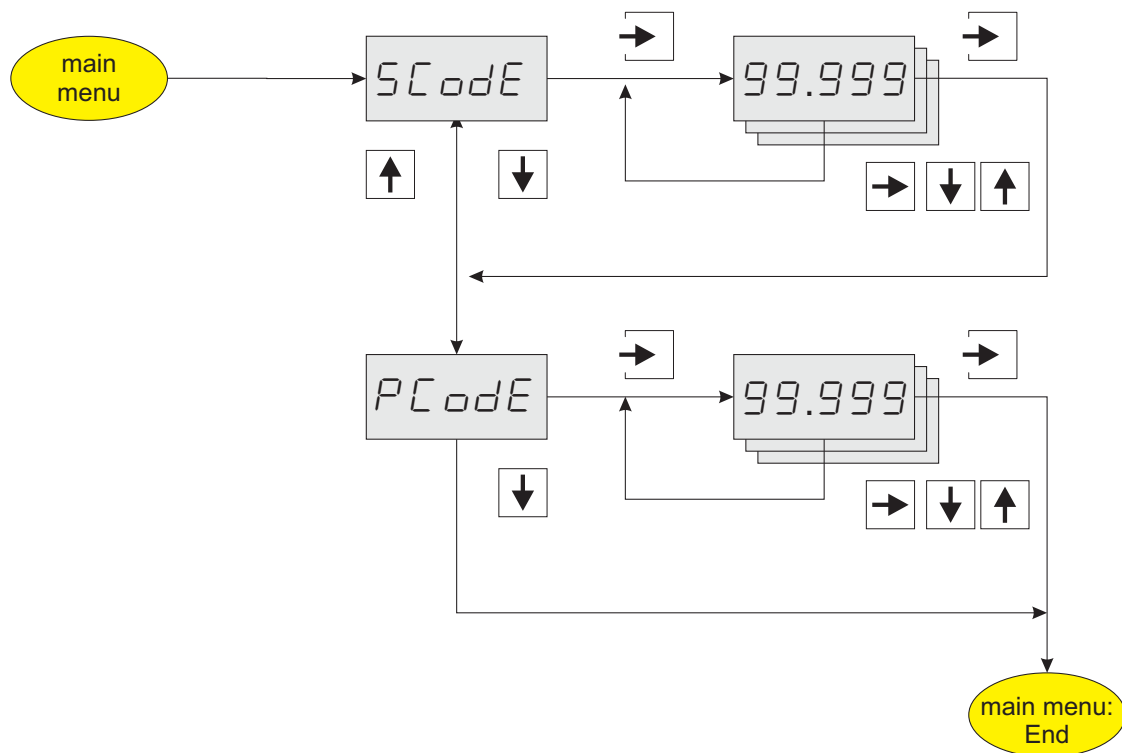


Figure 11: Code menu

6 Annex

6.1 Technical Details and terminal limits

		Wägeterminal WT158
General	Ex- Protection	E Ex ib IIC T4
	Device group	II 2 G
	EC - type examination certificate	TÜV 01 ATEX 1742
display	LCD	5- figure 7- Segment LCD
	Figure height	30 mm
	Bargraph	for actual value, 41 Segments
	Display limit	0 up to + 99999, Decimal point free programmable
	Display contents	actual value, Max- resp. Min limit, overload
Mounting	Ambient temperature	-20°C ...+50°C T4
	Zone	Hazardous area, Zone1
Housing	Dimensions H x B x T	160 mm x 100 mm x 63 mm
	Material	Aluminium, lacquered
	weight	ca. 760 g
	Housing Protection	IP65
Electrical Specification	Power supply: te. 1,2	U = 10 V, I = 20 mA + 5V / resistance load cell(n)
	Measure rate	8 Hz
	accuracy	0,03% VE at 2mV/V
	Temperature coefficient	0,015 % VE per 10 K
	Input	Direct connection of DMS full bridges (result resistance bigger than 85 Ω)
	DMS- power supply	ca. 5 V
	TTY- interface	600 .. 9600 baud, 8 Data bits, 1 Stop bit,
E Ex i - limits	Power supply: te, 1,2	$U_i = 30V, I_i = 110 \text{ mA}, P_i = 2 \text{ W}, L_i = 30\mu\text{H}, C_i \text{ and } L_i = 0$
	Analogous output: te. 3,4	$U_o = U_i \text{ an Te.1}, I_o = I_i \text{ an Te.1}, P_o = P_i \text{ an Te.1}, C_o = C_o \text{ an Te.1} - 30 \text{ nF}, L_o = L_o \text{ an Te.1} - 40 \mu\text{H}$
	Digital output: Te. 5,6	$U_i = 30V, I_i = 160 \text{ mA}, P_i = 1,5 \text{ W}, L_i = 20\mu\text{H}, C_i = 0$
	TTY- input	$U_i = 30V, I_i = 160 \text{ mA}, P_i = 2 \text{ W}, L_i = 20\mu\text{H}, C_i = 0$
	TTY- Sender	$U_o = U_i \text{ an Te.1}, I_o = I_i \text{ an Te.1}, P_o = P_i \text{ an Te.1}, C_o = C_o \text{ an Te.1} - 30 \text{ nF}, L_o = L_o \text{ an Te.1} - 40 \mu\text{H}$
	Load cell port	$U_o = 5,9 \text{ V}, I_o = I_i \text{ an Te.1}, P_o = 650 \text{ mW}, C_o = 2 \mu\text{F}, L_o = L_o \text{ an Te.1} - 40 \mu\text{H}$

See EC - type examination certificate TÜV 01 ATEX 1742 for more information

6.2 Documentation table

1. Level	Parameter	value	Commentary
Language	Language	<input type="checkbox"/> German <input type="checkbox"/> English <input type="checkbox"/> French <input type="checkbox"/> Dutch	
Unit	Unit	<input type="checkbox"/> „g“ <input type="checkbox"/> „ kg“ <input type="checkbox"/> „t“	
	Decimal point	9 9 9 9	
Balance - units	Step		
	Range		
	Manual tare	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Auto zero	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Auto zero on power on	<input type="checkbox"/> Yes <input type="checkbox"/> No	
	Filter		
	Polarity	<input type="checkbox"/> positive <input type="checkbox"/> negative	
	Bridge sensibility	[mV/V]	
	Calibration point		
Limit monitoring	Max / Min	<input type="checkbox"/> Min <input type="checkbox"/> Max	
	Limit		
	Hysteresis		
	Delay	[s]	
	no - nc	<input type="checkbox"/> no - / - <input type="checkbox"/> nc ---	
Analogous output	gross / Net	<input type="checkbox"/> Net <input type="checkbox"/> gross	
	0/4 .. 20 mA	<input type="checkbox"/> 0 ..20 mA <input type="checkbox"/> 4 ..20 mA	
Modbus	S-Address		
	Data rate	<input type="checkbox"/> 9600 <input type="checkbox"/> 4800 <input type="checkbox"/> 2400 <input type="checkbox"/> 1200 <input type="checkbox"/> 600 [bit/s]	
	Parity	<input type="checkbox"/> none <input type="checkbox"/> even <input type="checkbox"/> odd	
	Swap- float	<input type="checkbox"/> Yes <input type="checkbox"/> No	
Code	S-Code		
	P-Code		

6.3 Type code

	WT158	.X	.X	.X
Analogous output:				
Absent0		
Present1		
TTY- receiver:				
Absent0	
Present.....			.1	
TTY- Sender:				
Absent.....				.0
Present.....				.1

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(1) EG-Baumusterprüfbescheinigung

- (2) Geräte und Schutzsysteme zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen - **Richtlinie 94/9/EG**
- (3) EG Baumusterprüfbescheinigungsnummer



TÜV 01 ATEX 1742

- (4) Gerät: Wägeterminal Typ WT158....
- (5) Hersteller: Gönzheimer Elektronik GmbH
- (6) Anschrift: D-67433 Neustadt/Weinstraße, Dr.-Julius Leber-Str.2
- (7) Die Bauart dieses Gerätes sowie die verschiedenen zulässigen Ausführungen sind in der Anlage zu dieser Baumusterprüfbescheinigung festgelegt.
- (8) Der TÜV Hannover/Sachsen-Anhalt e.V., TÜV CERT-Zertifizierungsstelle, bescheinigt als benannte Stelle Nr. 0032 nach Artikel 9 der Richtlinie des Rates der Europäischen Gemeinschaften vom 23. März 1994 (94/9/EG) die Erfüllung der grundlegenden Sicherheits- und Gesundheitsanforderungen für die Konzeption und den Bau von Geräten und Schutzsystemen zur bestimmungsgemäßen Verwendung in explosionsgefährdeten Bereichen gemäß Anhang II der Richtlinie.
- Die Ergebnisse der Prüfung sind in dem vertraulichen Prüfbericht Nr. 01 YEX 131717 festgelegt.
- (9) Die grundlegenden Sicherheits- und Gesundheitsanforderungen werden erfüllt durch Übereinstimmung mit
- EN 50 014:1997 EN 50 020:1994**
- (10) Falls das Zeichen "X" hinter der Bescheinigungsnummer steht, wird auf besondere Bedingungen für die sichere Anwendung des Gerätes in der Anlage zu dieser Bescheinigung hingewiesen.
- (11) Diese EG-Baumusterprüfbescheinigung bezieht sich nur auf die Konzeption und den Bau des festgelegten Gerätes gemäß Richtlinie 94/9/EG. Weitere Anforderungen dieser Richtlinie gelten für die Herstellung und das Inverkehrbringen dieses Gerätes.
- (12) Die Kennzeichnung des Gerätes muss die folgenden Angaben enthalten:



II 2 G EEx ib IIC T4

TÜV Hannover/Sachsen-Anhalt e.V.
TÜV CERT-Zertifizierungsstelle
Am TÜV 1
D-30519 Hannover

Hannover, 24.08.2001

Der Leiter



(13)

ANLAGE

(14) **EG-Baumusterprüfbescheinigung Nr. TÜV 01 ATEX 1742**

(15) Beschreibung des Gerätes

Das Wägeterminal Typ WT158.... dient zur Realisierung einer Waage in explosionsgefährdeten Bereichen in denen Betriebsmittel der Kategorien 2 bzw. 3 erforderlich sind.

Die höchstzulässige Umgebungstemperatur beträgt 50°C.

Elektrische Daten

Speisestromkreis
(Klemmen 1, 2)

in Zündschutzart Eigensicherheit EEx ib IIC
nur zum Anschluss an bescheinigte eigensichere
Stromkreise mit folgenden Höchstwerten:

$$U_i = 30 \text{ V}$$

$$I_i = 110 \text{ mA}$$

$$P_i = 2 \text{ W}$$

Die wirksame innere Kapazität und Induktivität sind vernachlässigbar klein.

Analogausgang
(Klemmen 3, 4)

in Zündschutzart Eigensicherheit EEx ib IIC
Die Höchstwerte entsprechen denen des
Versorgungsstromkreises.

TTY-Ausgang
(Klemmen 9, 10)

in Zündschutzart Eigensicherheit EEx ib IIC
Die Höchstwerte entsprechen denen des
Versorgungsstromkreises.

Der Speisestromkreis, der Analogausgang und der TTY-Ausgang sind als durchverbunden zu betrachten. Die Summenwerte für die höchstzulässigen äußeren Reaktanzen am Analog- und TTY-Ausgang sind durch die Höchstwerte des Speisegerätes abzüglich 40 μH und 30 nF sowie der Leitungsreaktanzen des Verbindungskabels vom Speisegerät zum Wägeterminal festgelegt, die der zugehörigen EG-Baumusterprüfbescheinigung zu entnehmen sind.

Digitalausgang
(Klemmen 5, 6)

in Zündschutzart Eigensicherheit EEx ib IIC
nur zum Anschluss an bescheinigte eigensichere
Stromkreise mit folgenden Höchstwerten:

$$U_i = 30 \text{ V}$$

$$I_i = 160 \text{ mA}$$

$$P_i = 1,5 \text{ W}$$

Die wirksame innere Kapazität und Induktivität sind vernachlässigbar klein.

Der Digitalausgang ist von allen übrigen Stromkreisen galvanisch getrennt.



Anlage zur EG-Baumusterprüfbescheinigung Nr. TÜV 01 ATEX 1742

TTY-Eingang
(Klemmen 7, 8)

in Zündschutzart Eigensicherheit EEx ib IIC
nur zum Anschluss an bescheinigte eigensichere
Stromkreise mit folgenden Höchstwerten:

$$U_i = 30 \text{ V}$$

$$I_i = 160 \text{ mA}$$

$$P_i = 2 \text{ W}$$

Die wirksame innere Kapazität und Induktivität sind
vernachlässigbar klein.

Wägezellenstromkreis
(Klemmen 13 bis 24)

in Zündschutzart Eigensicherheit EEx ib IIC

Höchstwerte:

$$U_o = 5,9 \text{ V}$$

$$P_o = 650 \text{ mW}$$

höchstzul. äußere Kapazität 2 μF

Der Höchstwert für den Ausgangsstrom ist durch den Höchstwert des Speisegerätes festgelegt.
Die höchstzulässige äußere Induktivität ist ebenfalls durch den Höchstwert des Speisegerätes,
aber abzüglich 40 μH festgelegt. Die Werte sind der zugehörigen EG-Baumusterprüf-
bescheinigung zu entnehmen.

(16) Prüfungsunterlagen sind im Prüfbericht Nr. 01 YEX 131717 aufgelistet.

(17) Besondere Bedingung

keine

(18) Grundlegende Sicherheits- und Gesundheitsanforderungen

keine zusätzlichen