

# MEIRI 2655C Version 1.8

# **USER MANUAL**



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### **1 SAFETY INSTRUTIONS** PLEASE READ THIS MANUAL BEFORE PROCEEDING ANY HANDLING

#### PRELIMINARY PRECAUTIONS

The elementary precautions, safety rules and instructions set out in the present document must be observed at all times in order to ensure the safety of persons and to prevent any damage to the device or to instruments which are connected to the latter. It is also essential that statutory requirements and safety requirements for the application concerned should be observed during use.

For reasons of safety, the device must only be used by a qualified person. The device must only be used for the purposes for which it has been designed, and within the limits of application specified. The device must not be opened, other than in the context of the operations listed in the present document. No attempt must be made to remove internal components, or to modify them in any way.

The device constitutes one link in an instrumentation channel. Equipment installers and operators must undertake the planned consideration, deployment and response to safety requirements associated with the device, with the instruments connected thereto and with instrumentation technology. INSTALLATION PRECAUTIONS

Only the voltage required by the measuring device should be used. It must be confirmed that the instruments or the power grid delivering voltage to the device are consistent with the rating indicated on the latter.

The electrical safety of this device can only be guaranteed if the latter is correctly connected to a grounding installation, in accordance with electrical safety standards. It is essential to confirm that this fundamental safety requirement is properly fulfilled. For installation purposes, a two-pole switch must be provided, with a minimum 3 mm contact breaking gap.

The device must be protected against any direct contact with water, and the maximum permissible ambient temperatures must be observed. The use of the device in direct sunlight, or in very hot, humid, dirty or dusty locations, locations.

which are subject to strong vibrations or in proximity to magnetic fields may result in incorrect operation.

No objects must be placed in front of the ventilation outlets of the measuring device, or the correct ventilation of the internal components will otherwise be impaired, resulting in overheating.

If the measuring device shows signs of incorrect operation, or if any unusual odour or smoke is detected, it should be disconnected from supply immediately and serviced by a qualified MEIRI engineer.

#### GUARANTEE

MEIRI measuring devices are covered by a 1-year factory return guarantee for parts and labour, excepting any specific provisions.

The guarantee will not be enforceable in the following specific cases:

If the device has been operated at a voltage other than that indicated on the data plate of the device. If the user employs the device supplied in an abnormal or improper manner, or undertakes any modifications thereto. If the user causes damage by negligence, inadequate servicing, inexperience or the use of harmful products.

Replacements or repairs undertaken under the terms of the guarantee and resulting in the unavailability of the device for a period of less than seven days shall not extend the term of the guarantee. For the enforcement of the guarantee, the user must contact the MEIRI distributor who sold the device concerned. Repairs under guarantee will be undertaken in our laboratories, and the device must be returned in packaging which will ensure the safety thereof during transport. The user will assume packaging and carriage costs for the return of the device to the factory. MEIRI or its distributor will assume packaging and carriage costs for the return of the device to the user after repair in mainland France only. No compensation shall be payable in respect of the unavailability of the device associated with the conduct of repairs under the terms of the guarantee.



# 2 INTRODUCTION

Thank you for choosing our conditionning electronics from the MEIRI range. Read this document carefully and keep this manual in a safe place for future reference. Our warranty will only apply if the products are installed and used according to the instructions given.

# **3 PRESENTATION**

The ME2655C is a digital panel display or panel mount. It is mainly intended for the measurement of signals and the conditioning of sensors in the context of process controls. It can provide an analog output that can be used by an acquisition system or a PLC, transmit in RS232 and has digital inputs and outputs (TOR).

The ME2655C is available in multiple ranges adapted to the different electrical and physical quantities (force, torque, weighing, pressure, displacement, inclination ...). The sensor's sensitivity and measuring range information are sufficient for quick commissioning.

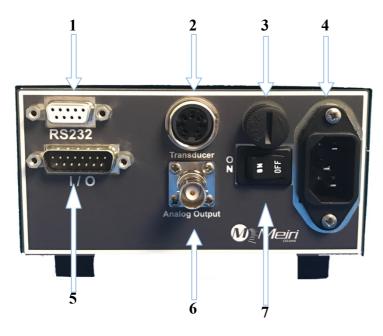
## 3.1 Front panel



- 1. 2 lines of 16 characters display
- 2. Voyants d'état des seuils « Mini / OK / Maxi »
- 3. « Reset and Escape » Key
- 4. « Menu » Key
- 5. Print Key and UP Scroll
- 6. Zero Key / UP Scroll

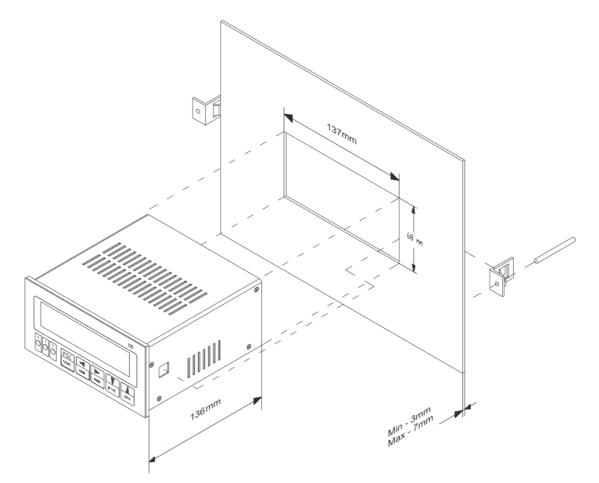


## 3.2 Rear panel



- 1. RS 232 Connection
- 2. Strain gauge input (A)
- 3. Fuse holder
- 4. Main supply 85 à 264 Vac 50/60 Hz
- 5. Output connection (contacts, print, tare and zero)
- 6. Electronic torque sensor and quadrature encoder input
- 7. Mains on/off switch

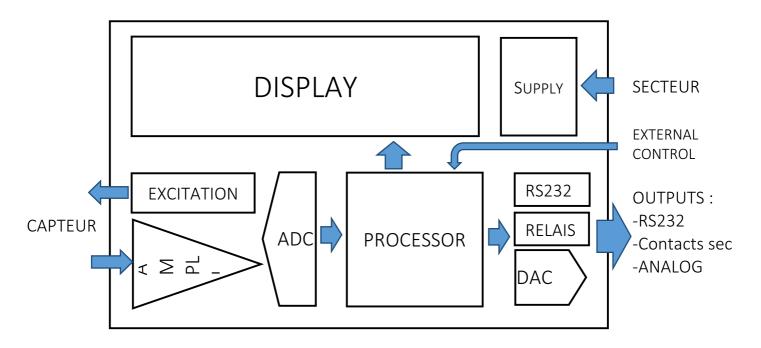
## 3.3 Panel installation



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3.7 Overview



# 4 OPERATING PRINCIPLE

The ME2655C conditions the sensors by providing a high stability power supply. Then, it amplifies the signals coming from these and converts them into digital. The internal processor calculates and scales in real time the exact value of the measured physical parameter and displays it on the display.

Depending on the measurement mode selected, the real-time value or the peak value obtained. In this measurement mode, the electronics acquire the data at high speed and realize a sliding average allowing to "capture" a fugitive signal with great precision.

The device transmits its display via RS232 link in real time or operator action. It also controls two relays when crossing thresholds configured by the operator.

An analog digital converter allows the ME2655C to provide two analog outputs  $\pm$  10V and 4-20mA, available on the rear panel.

The entire configuration is carried out in the display by scrolling the menus of the program.



# **5 FEATURES**

#### **GENERAL FEATURES ME2655C**

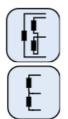
- Display of the measurement in real time
- Storing the maximum or minimum value (fast peak measurement)
- Automatic or manual reset
- Visual level indicator (bar graph)
- Inverting the polarity of the input signal
- Voltage output ±10V
- Power ourput4 20 mA
- Output 2 relay contacts dry
- RS232 output
- External resettable command RESET, PRINT, TARE
- Scrolling Menu configuration en 4 languages (English, German, French, Italian)

#### FEATURES ME2655C AJ



- Conditionor amplifier strain gauge sensor
- 4-wires sensor
- Bridge power supply 10 V
- Adjustable sensitivity from 0.313 mV/V to 9.999 mV/V

## FEATURES ME2655C LVDT698



- Conditionor amplifier for LVDT Sensor
- A/B demodulation
- 3-wires half-bridge compatible
- Adjustable sensitivity from 31.3 mV/V to 999.9 mV/V
- Frequency and excitation voltage on demand



#### FEATURES ME2655C LVDT598



- Conditionor amplifier for LVDT 5 or 6-wires sensors
- (A-B)/(A+B) Demodulations
- Adjustable sensitivity from 31.3 mV/V to 999.9 mV/V
- Frequency and excitation voltage on demand

#### FEATURES ME520 U



- Voltage amplifier
- Compatible sensor electroni integrated
- Sensor power supply +15Vdc 1W
- Adjustable sensitivity from 0.313 to 9.999 V

#### FEATURES ME520 DP



- Conditionor amplifier potentiometric sensor
- Sensor power supply 4.1V
- Adjustable sensitivity from 31.3 mV/V to 999.9 mV/V



# **6 TECHNICAL FEATURES**

	GENERAL FEATURES ME2655C	
POWER SUPPLY		
Power supply voltage		95-264 VAC / 50-60 Hz
Power	Typical	15 W
Supplu filter	Schaffner	
Fuse	5*20mm ; temporisé	1A
DIMENSION		
Size	H*W*D (sockets and bases included	86*144*157mm
Weight		1.2kg
Setting	Table or panel	
CONDITIONS OF USE		
Temperature control		0 à +50°C
Storage temperature		-10 à +70°C
Protection rating	On table	IP50
	Assembled on panel with	IP55
	waterproofing joint (not included)	
DIGITAL PART		
Microcontroller		RISC
Clock		20MHz
Analog converter / digital		16 Bits
Sampling frequency	maximum	100kHz
Digital converter / analog		12Bits
Resolution fro ± E.M.		±32768
Display	2 lines 16 characters	LCD
OUTPUT RS232		
Direction	Transmission	
Speed	Adjustable (réglage Bauds)	1200, 2400, 9600, 19200
Bits number	Setting	7, 8 (1 bit de STOP)
Parity	Variable	Pair ou impair
Format	+1.0000mm>	
Response time	Between the control and 1st front	50ms max
Tansmission length	According configured speed	170, 80, 20, 11 ms
Maximal velocity of the external control	According configured speed	5, 9, 20, 26 Hz
Continous external	Extern control maintained	20 Hz



## conrol speed

ANALOG OUTPU	TS	
Voltage output	Configurable (For ±PE)	±5V ou 10 V
Power output	Configurable (For ±PE)	8-16mA ou 4 - 20mA
Bandwidth	at -3db	500Hz
Rise time		2 ms
Linearity	Typical	0.05%
<b>RELAY OUTPUTS</b>		
Contact	Break / Working	0.5A / 220Vac maxi
Hysteresis	With maximum number of decimal	±10 points
	With other display modes	±1 point
EXTERNAL INPUT CONTROL		
RAZ	By potential-free contact or TTL	Asset closed or at 0
Print	By potential-free contact or TTL	Asset closed or at 0
Tara	By potential-free contact or TTL	Asset closed or at 0

	FEATURES ME2655C AJ	
Sensor input	Complete bridge of conventional or	4 Wires
	semiconductor gauges	
Input impedance	Typical	15 ΜΩ
Bridge impedance		350 Ω à 10 kΩ
Bridge excitation	Voltage maxi 30mA	10 VDC
TRMC	Typical	110dB
Sensitivity input	Adjustable	0.313 à 9.999 mV/V
No sensibility settings		0.001 mV/V
Linear conditioner	Typical	0.01 %

FEATURES ME520 LVDT 698		
Input sensor	LVDT Complet bridge or	3 ou 4 Wires
	semibridge	
Demodulation		A/B
Excitation frecuency sensor	Standard (others on demand)	5 kHz ±10%
Excitation voltage sensor	Standard (others on demand)	3 VRMS ±10%
Input impedance	Amplifier input	200 kΩ
Sensitivity input	Adjustable	31.3 à 999.9 mV/V
No sensibility settings		0.001 mV/V
Linear conditioner	Typical	0.05 %
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LVDT	5 ou 6 fils
	(A-B) / (A+B)
Standard (others on demand)	5 kHz ±10%
Standard (others on demand)	3 VRMS ±10%
Amplifier input	200 kΩ
Adjustable	31.3 à 999.9 mV/V
	0.001 mV/V
Typical	0.05 %
	Standard (others on demand) Amplifier input Adjustable

	FEATURES ME520 U	
Input	Voltage referenced to ground	
Input impendance		17kΩ
Excitation voltage sensor		15 VDC
Sensitivity input	Adjustable	0.313 à 9.999 V
Linear conditioner	Typical	0.01 %

	FEATURES ME520 DP	
Input	Voltage referenced to ground	
Input impedance		>200 MΩ
Impedance Sensor		500Ω à 10kΩ
Excitation voltage sensor		4.1 VDC
Sensitivity input	Adjustable	31.3 à 999.9 mV/V
Linear confitioner	Typical	0.01 %



# 7 CONNECTION

# 7.1 CAUTION

Before connecting or separating the measuring device to other electronic components, turn off the measuring device. Disconnect all cables before dismantling or moving the unit. Do not handle the adjustment devices too suddenly.

# 7.2 REAR CONNECTION

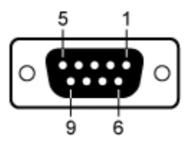
NOTE : The cable shield must be connected to the connector housings

## RS232 CONNECTOR

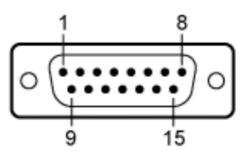
Plug Sub-D female 9 contacts	
PIN 2	ТХ
PIN 3	RX
PIN 5	GND

## I/O PLUG

Plug Sub-D male 15 contacts	
PIN 1	Low threshold - Contact N/C
PIN 2	Low threshold- Contact N/O
PIN 3	High threshold - Contact
	commun
PIN 4	GND
PIN 5	Output tension
PIN 6	GND
PIN 7	PRINT
PIN 8	NC
PIN 9	Law threshold - Contact
	commun
PIN 10	High threshold - Contact N/O
PIN 11	High threshold - Contact N/C
PIN 12	+5Vdc 10mA maxi
PIN 13	Voltage output



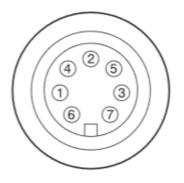
PIN 14	RESET	
PIN 15	TARE	



#### Sensor connector

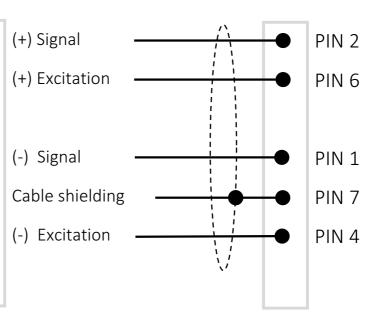
#### 2655C AJ

Plug DIN	Plug DIN 7 contacts	
PIN 6	(+) Excitation	
PIN 1	(-) Signal	
PIN 4	(-) Excitation	
PIN 2	(+) Signal	
PIN 5	(+) Excitation	
PIN 3	(-) Excitation	
PIN 7	GND	



### 4-WIRES STRAIN GAUDE SENSORS INPUTS ON 7-PIN CONNECTOR



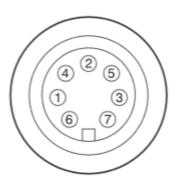


2655C AJ

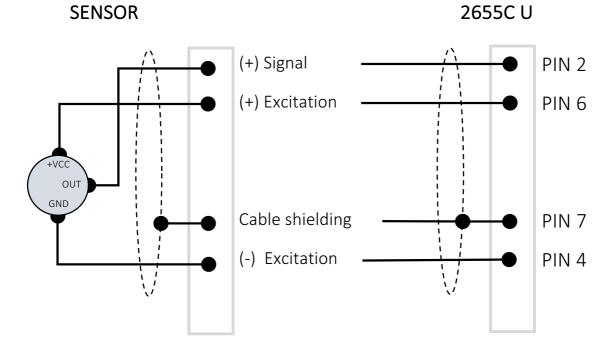


#### 2655C U

Plug DIN 7 contacts			
PIN 6	Excitation +		
PIN 1	NC		
PIN 4	Excitation - (GND)		
PIN 2	Signal +		
PIN 5	NC		
PIN 3	NC		
PIN 7	GND		



#### INTEGRATED ELECTRIC SENSORS CONNECTIOR

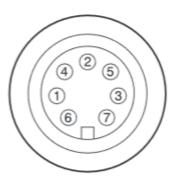


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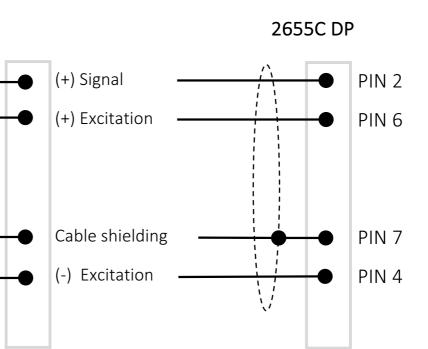
## 2655C DP

Plug DIN 7 contacts			
PIN 6	Excitation +		
PIN 1	NC		
PIN 4	Excitation - (GND)		
PIN 2	Signal +		
PIN 5	NC		
PIN 3	NC		
PIN 7	GND		



## **3-WIRES POTENTIOMETIC CONNECTOR**



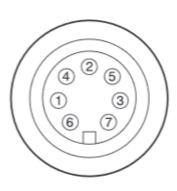


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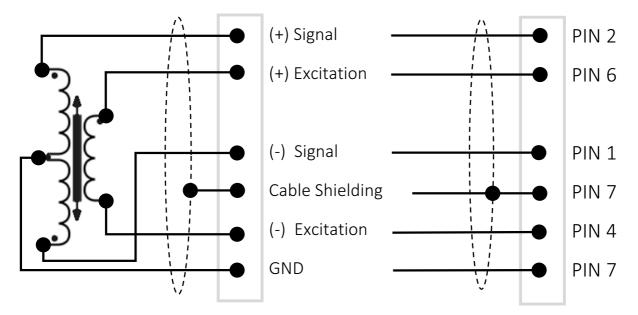
## 2655C LVDT598

Plug DIN 7 contacts		
PIN 6	(+) Excitation	
PIN 1	(-) Signal	
PIN 4	(-) Excitation	
PIN 2	(+) Signal	
PIN 5	(+) Excitation	
PIN 3	(-) Excitation	
PIN 7	GND	



## **5-WIRES INDUCTIVE SENSOR CONNECTOR**



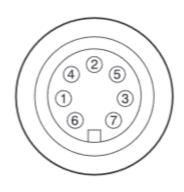


2655C LVDT598

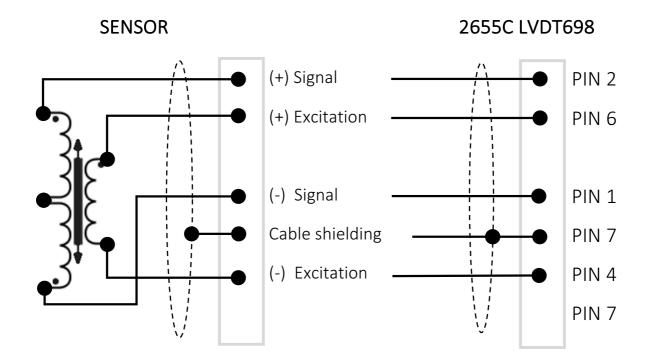




Plug DIN 7 contacts		
PIN 6	(+) Excitation	
PIN 1	(-) Signal	
PIN 4	(-) Excitation	
PIN 2	(+) Signal	
PIN 5	(+) Excitation	
PIN 3	(-) Excitation	
PIN 7	GND	

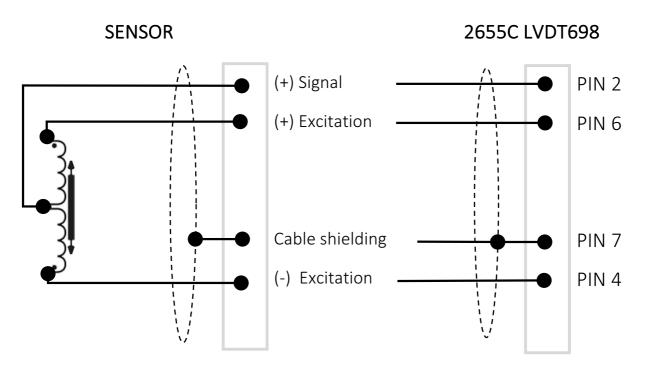


## 4-WIRES COMPLET BRIDGE SENSOR CONNECTOR





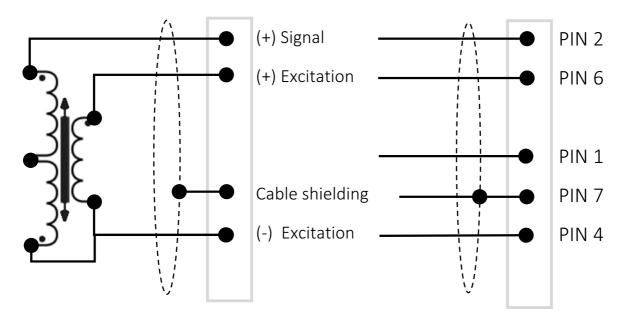
## 3-WIRES HALF-BRIDGE INDUCTIVE SENSOR CONNECTOR



### 3-WIRES INDUCTIVE COMPLET BRIDGE SENSOR CONNECTOR



#### 2655C LVDT698





## 7.2 Internal card layout

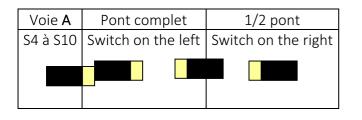
For the 2655C LVDT698 2C model only, it is possible to configure several parameters on the packaging card:

	N	NE26LVDT2C		A
	v	er: D B		S1 S2
it is		\$13	ı F	S3
		S14	1	S4
s on		\$15		S5
		S16		S6
		S17		S7
		S18		S8
		S19	4 -	S9
		S20	JL	S10
	Τ			
Voie <b>B</b>		Pont complet	1/2 pont	

Switch on the right

Switch on the left

### Layout LVDT ou 1/2 bridge :



### Configuration de l'impédance de charge :

Α	10ΚΩ	2ΚΩ	100ΚΩ		В	10ΚΩ	2ΚΩ	100ΚΩ
S3	per on the right	Jumper on the left	without jumper	0	S13	Jumper on the right	Jumper on the left	without jumper

S14 à S20

#### Excitation frequency layout :

Fréquence	S1	S2	configuration
13 kHz	Without jumper	On the right	<b>500</b> S1 <b>51</b> S2
10 kHz	Without jumper	On the left	○○○ S1 ■○ S2
5 kHz Jumpr on the left		Without	S1 000 S2
2.5 kHz	Jumper on the right	Without	<b>O</b> <b>O</b> <b>S</b> <b>O</b> <b>S</b> <b>O</b>

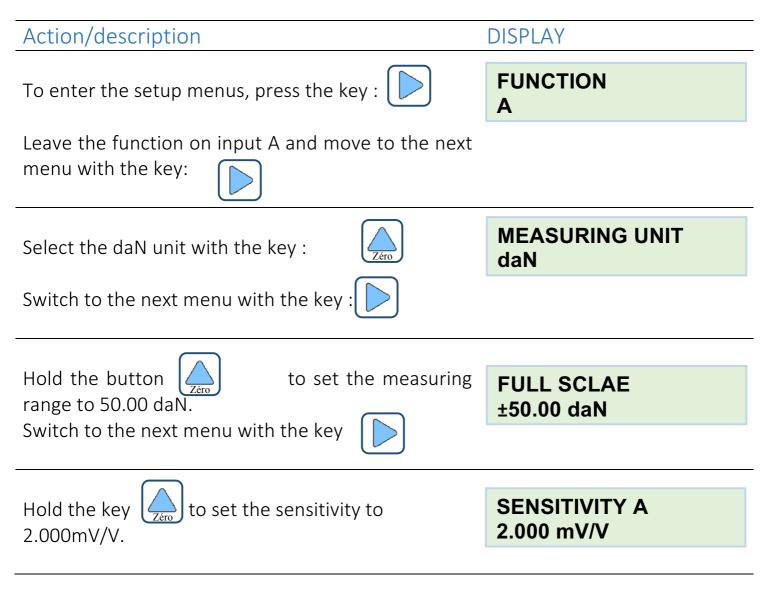


# 8 QUICKLY SET UP

#### Setting example of 2655C AJ

Locate the measuring range and sensitivity on the sensor certificate or label. Connect it to the cabinet and turn it on.

In our example, a force sensor with a capacity of  $\pm$  50daN and a sensitivity of 2.000mV / V is connected to the 2655C. The display is configured to view the measurement in real time.





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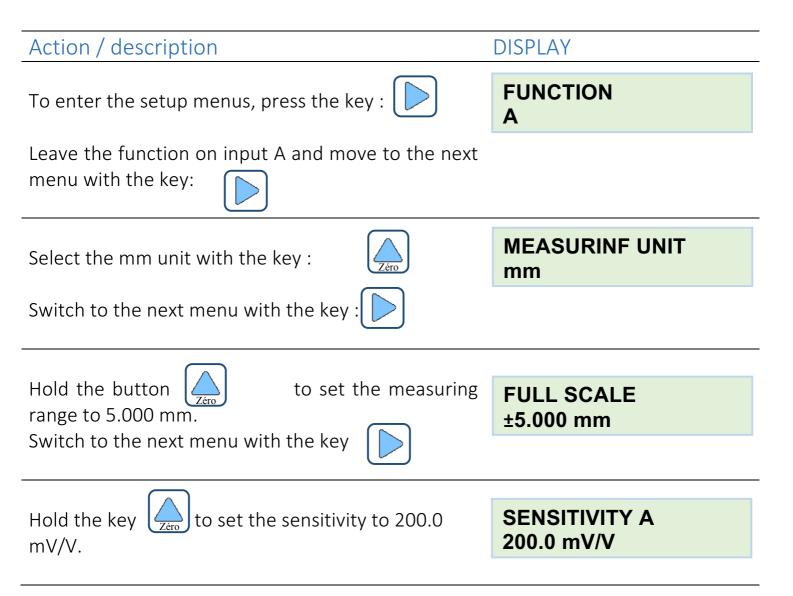
Press the key repeatedly to go to the "measuring mode" menu.	TYPE OF MEASURE FOLLOWER		
Press the key repeatedly to go to the backup	BACK UP PRESS ZERO		
menu Press the key saved, the device will restart automatically.			
The measuring mode is now displayed :			
Threshold status indicator.			
Real-time display of measured value			
With unit measurement	+ 0.138 daN =		
Recall the input displayed Bargraph, evolves with the measurement.	1		
The key $\left( \sum_{Z \in ro} \right)$ allows you to perform a relative zero (tara) at any time.			
The key information to be sent instantaneously via the RS232 output.			



#### Setting example 2655C LVDT698

Locate the measuring range and sensitivity on the sensor certificate or label. If it is written in mV / V / mm, convert it to mV / V by multiplying it by the full scale of the sensor. Connect it to the cabinet and turn it on.

In our example, a displacement sensor with a capacitance of  $\pm$  5mm and a sensitivity of 200.0mV / V is connected to the 2655C. The display is configured to retain the maximum size of a sample measured by the sensor, with a manual reset of this peak value.

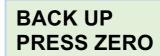




Press the key repaetedly to reach the menu « mode of measure » Configure the Peak + measurement mode with the key	MODE OF MEASURE PEAK +
Switch to the next menu with the key	
Check that the RAZ of the measurement is configured to be manually.	R.A.Z. MEASURE MANUAL
Switch to the next menu with the key	
Check that the trip time is not less than 0.003 seconds.	T. TRIGGER 0.003 seconds
Switch to the next menu with the key	
Check that the starting threshold is +0.010 mm.	TRIGGER TIME +0.010 mm
Switch to the next menu with the key	



Press the key repeatedly	to go to the backup
menu	



Press the key



the sensor parameters are

saved, the device will restart automatically.

## The measuring mode is now displayed :

Threshold status indicator.		
Real-time display of measured value		↓ ↓
With unit measurement	<ul> <li>→ + 4.138 mm</li> <li>→ A</li> </ul>	=
Recall the input displayed		
Bargraph, evolves with the measurement.		T

The key is used to reset the peak value. It transmits the measurement information simultaneously via the RS232 output.

The key allows you to perform a relative zero (tara) at any time

The key allows the measurement information to be sent instantaneously via the RS232 output.



# 9 SET UP MENU

The program is executed by pressing the "Menu" keys :



The parameters can be changed by pressing the "Param." key :  $\Box_{\rm P}$ 

DISPLAY	Fonction / Description
FUNCTION A	Means that the box uses input A for the sensor. If input B is available (optional), the user can choose this input alone or in mathematical combination
	with input A. Selection : A, B, A+B, A-B, (A+B)/2, (A-B)/2
MEASURE UNIT daN	Allows the user to select the unit of measurement to be displayed. <b>Note</b> : no conversion operation is applied to the
	Units available :
	Nm, mKg, mdaN, lbf.in, ft.lbf, N, daN, KN, gramme, Kgf, tonne, pound, mm, cm, m, inch, feet, bar, psi, Pa, mmHg, mmH2O, g, mm/s, m/s, C, F, V, mV, A, mA, aucune unité
FULL SCALE ±5.000 daN	Adjusts the measuring range of the sensor (see sensor or data sheet). Adjustable from 0.1000 to 999.9
	Note: This parameter is common to inputs A and B.



<pre>!! WARNING!! CHANGED THRESHOLDS !</pre>	This alert message appears if the measuring range has changed, especially if the decimal point has moved. In this case, the following menu goes directly to the "High threshold and Low threshold" to check the value of the threshold setpoints, as these have also been modified. Also check the threshold value if the PEAK mode is active.
SENSITIVITY A 2.000 mV/V	Sensor sensitivity for input A, mV / V or V depending on the function of the enclosure (AJ, LVDT, U). Values can range from 0.314 to 9.999mV / V or V or from 31.3 to 999.9mV / V for the LVDT.
SENSOR DIRECTION INORMAL	This menu allows to modify the sign of the measurement according to the direction of variation of the sensor A. Two possible selections: Normal or inverse
REAL A: - 0.736 TARA A: + 0.001	<b>REAL</b> : Displays the real value of the sensor A <b>TARA</b> : displays the relatuve value of the sensor A
	The tare is set to zero by pressing the key
CALIBRATION A PRESS ZERO	Access ti the sensor calibration menu by pressing the key:
E : 5.000 S : 2.000 - 0.001 daN	The calibration menu recalls the measured range (E :) and the sensitivity (S :) configured previously and displays the measurement in real time. The setting keys are used to change the sensitivity. This function is used when calibrating a cabinet and sensor assembly.



### MODE OF MEASURE FOLLOWER

Allows to select the measurement mode that will be used to display the sensor value. Three possible selections: FOLLOWER : Displays the value in real time PEAK + : Displays the maximum value PEAK - : Displays the maximum value

#### MENU IS ONLY DISPLAYED IF THE MEASURING PEAK MODE IS SET UP :

R.A.Z. MEASURE MANUAL	Resetting the peak value can be configured in two different ways: MANUAL : The reset is done by pressing the RST key. The new PEAK value or 0.000 (if the starting threshold has not been crossed) will be displayed. AUTOMATIC: the displayed peak value will be updated when the starting threshold is crossed.
T. TRIGGER TIME 0.010 seconds	Allows you to configure the minimum time before the peak value is taken into account. This timing starts as soon as the starting threshold has been crossed. Configurable from 0.001 to 1.000 seconds. An acceptable setting is approximately 0.007 seconds.
START MEASURE +00.20 daN	Sets the trigger threshold for the measurement. Storing the peak value will only start when this level is exceeded and after the trip time. An acceptable setting is 20% of the measurement.



MEASURE HIGH +5.010 daN	The 2655C has two alarms that control the "<", "=" and ">" LEDs on the front panel, as well as two relays (see section 9.3).
MEASURE LOW -5.010 daN	These menus allow you to set the high and low setpoints of the alarms. These values can be up to $\pm 2$ times the measuring range.
	The thresholds can be positive or negative. If a positive threshold and a negative threshold are required, the high threshold must be configured in positive and the threshold low in negative. If the two thresholds are of the same polarity, the high threshold must be set higher in absolute value than the low threshold.
PRESS ZERO APPROVE	In measurement mode the user can apply a zero relative to the display via the key
	This menu allows you to activate or block the use of this button.
DECIMAL NUMBERS - 0.001 daN	Increases or decreases the number of digits after the decimal point.
	This setting depends on the configured measuring range, within the limit of five significant digits.
LANGUAGE ENGLISH	Choice of display language.
	Possible selections: German, English, French, Italian



CALABRITION RS232 9600, SANS, 8	Allows adjustment of the parameters of the RS232 link.	
	— In number of data bits: 7 or 8 — With or Without parity	
	— Speed : from 1200 to 19200	
OUTPUT U et I x 1	The measuring ranges of the analog output voltage and current can be assigned a coefficient	
	<b>x 1</b> : ±5V & 8-16mA <b>x 2</b> : ±10V & 4-20mA	
ZOOM BARGRAPH 02	Adjusts the sensitivity of the bargraph deviation Configurable from 01 to 10.	
BACK UP PRESS ZERO	Backup of the entire configuration	
	After pressing the key saved and the device is restarted automatically.	
FACTORY SETTINGS PRESS ZERO	Allows you to restore the default settings in all menus of the device. Caution, all settings previously saved by the user will be permanently	
	lost	



## **10.1 ANALOGIC OUTPUT**

A reconversion of the display is available via the analog outputs.

The voltage output and the current output are available simultaneously. These analog outputs are active in measuring mode. They are automatically disabled when accessing the programming menus.

Depending on the setting (see chapter of the configuration menus), different outputs are available:  $\pm$  10V,  $\pm$  5V and 4-20mA for the configured sensor range.

The outputs of the two analog outputs are connected to the GND, see chapter 7.2 for connections and chapter 6 for connections.

## 10.2 EXTERNAL CONTROL INPUT

Diode 3V

Input

10nF

Three inputs are available to the user to control the following functions: RESET, PRINT and TARE. These inputs perform the same function as pressing the buttons on the front panel.

INPUT MIRROR SCHEME

### INPUTS CHARACTERITICS



- TTL compatible / relay contact
- Maximum input current 4mA

Only one entry can be active at a time. If a series of functions are being processed, the response time of 30 ms may be exceeded. If the PRINT command is held, the command is repeated automatically. The controls are in relation to the GND, see chapter 7.2 for connection.



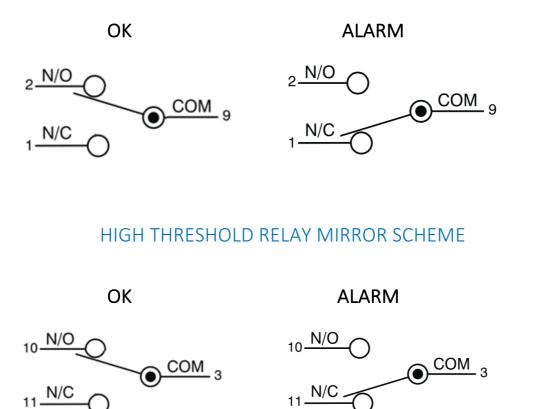
#### **10.3 RELAY OUTPUT**

The 2655C incorporates two configurable alarms: high threshold and low threshold. In addition to the visual indicators, alarms are available on the rear panel via two relays (see chapter 7.2 for connection).

The relays are in positive safety mode, ie the contacts are in alarm if the enclosure is switched off. The relays are also in alarm when accessing the configuration menus. In normal operation, as long as the display is between the configured threshold values, the relay contacts are "normally open" (N / O).

If the display exceeds the low threshold or high threshold value, the corresponding relay is in alarm and its contacts are "normally closed" (N / C).

#### LOW THRESHOLD RELAY MIRROR SCHEME





### 10.4 OUTPUT RS232

The 2655C can transmit the measurement display via its RS232 port. The port configuration must match the device to which it is connected. For connection, see chapter 7.2 and chapter 6 for specifications.

RS232 transmission is via the PRINT and RESET functions.

Output Format (20 ASCII characters 0-19):

0	1 à 10	11	12 à	17	18	19
			16			
Sign	Measure	Space	Unit	Threshold	End of line	New line

Legend	
Sign	+ or -
Measure	XXXX.XXXXX The non-significant zeros are replaced by spaces.
Unit	Measure unit : mm, daN, mil, etc (characters note 16 = space)
Threshold	Alarm status represented by the symbols "<", "=", or ">". The symbol " ! "Means a false measurement or a saturated system.

Examples : -0.2556 mm < +21.596 Nm = +915.96 Nm >

#### 10.5 EXTERNAL +5VDC

In pin 12 of the I / O connector (see chapter 7.2), a voltage of 5 volts DC, maximum 10mA, is available to the user for an interface circuit, for example.



# **11 MAINTENANCE**

Before cleaning or servicing, disconnect the appliance by disconnecting the plug or turning off the power switch. When the meter becomes dirty, clean it with a clean, dry cloth. Do not use liquid cleaning agents such as benzine or thinner, or even flammable products. Do not use paint thinners, solvents, cleaning agents or chemical-impregnated cleaning pads. MEIRI is not liable for damage caused by improper use of the measuring device or by modifications made by the user, nor can he cover the lost or destroyed data.

# **12 ASSISTANCE**

Before returning your ME520 to the after-sales service, make sure that the ME520 is correctly wired both to the sensor and to the installation to which it is connected. Also, make sure that the appliance is in good working order.

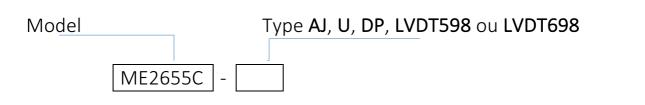
WARNING SIGN	POSSIBLE SOLUTION
Display flashes	<ul> <li>The sensor input is "in the air". Check the correct connection of the sensor and the correct wiring on the 2655C connector.</li> <li>The sensor input is full. Check that the sensor sensitivity is correct. Also make sure that it is functioning properly.</li> </ul>
The measure seems to saturate or is false.	- There may be a gain error in your configuration, check the correct configuration of the measuring range and sensitivity of the sensor.
The measurement fluctuates or is not stable.	<ul> <li>Use shielded cables to connect the sensors, connect the shield to pin 7 of the connector of the connector of the enclosure.)</li> <li>Beware of earth loops. Connect it to the measuring ground at only one point of your measuring chain.</li> </ul>

The table below provides some troubleshooting help:



# **13 CONTROL REFERENCE**

**CREAT YOUR OWN REFERENCE** 





# END OF DOCUMENT