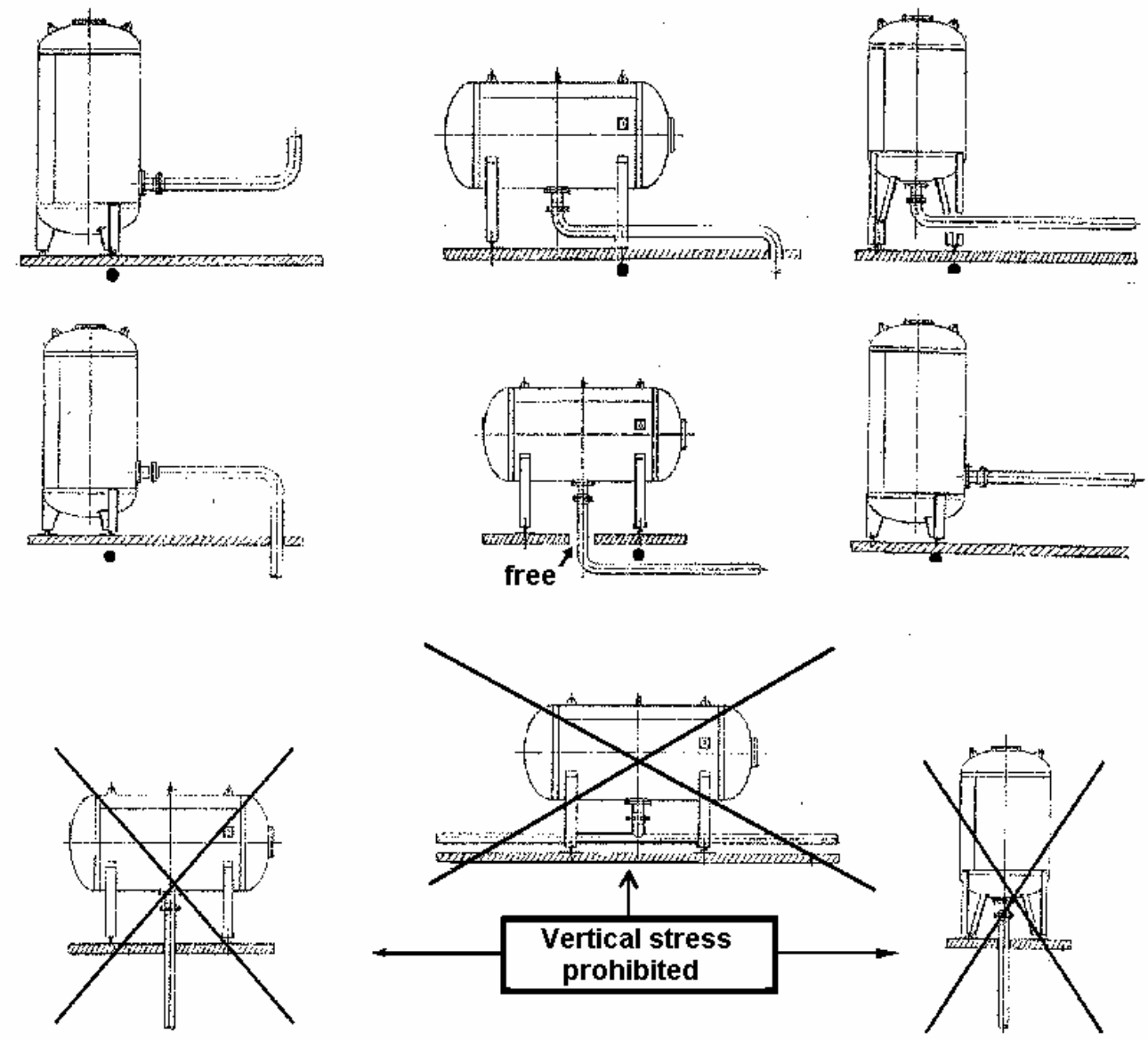
VERY IMPORTANT:

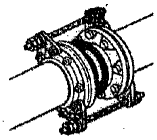
Installation details

- For gross volumes 300 litres and above
- Leveling pads will be attached below the legs : 75 mm height for the 300 litres up to 2000 litres, 150 mm height if the capacity is more than 2000 litres
- The pipe must not be tight near the vessel and any vertical stress must be avoided



<u>Advised location of the sensor</u>.

The minimum length between flange and the last pipe blockage must more than :
- Two times the vessel diameter if the vessel is vertical
- 1,5 times the vessel if the vessel is horizontal.



In case it is not possible to respect this minimum length :
install a flexible joint with an axial travel limiting device, in order the avoid any stress (push-pull) on the vessel during the pressure changes.

All displays and cells are numbered and assigned as a function of the type of tank. The program configuration settings are adjusted and tested in the factory and are then blocked (so as not to mix up cells and displays on a multiple control device)

1- Display fitted with a 4-alarm output

The setting adjustment area may be freely accessed (see "on-site settings" - chapter 4) as may the setting adjustments for the ascending and descending alarms (see "setting configurations" - chapter 5). The connections are made on the terminals 8 to 12 (see the "terminal board" diagram - chapter 7).

2- Display fitted with an analog output 4/20mA

The settings are adjusted and tested in the factory. "4" mA corresponds to 0 liters and "20" mA to the tank's total capacity (see chapter 6). The connections are made on the terminals 16 and 17 (see the "terminal board" diagram - chapter 7).

3- Hydrocontrol assembly

3.1- Set up the base plates making sure the cell maintains its positions under the foot nearest to the water outlet (for vertical tanks with side outlets).

3.2- Fix the base plates firmly to the floor with spits (IMPERATIVE).

3.3- Place the tank on the base plates fitted with adjusting jack bolts

3.4- Adjust the jack bolts until the tank is correctly placed: use a spirit level with horizontal tanks, and a plumb line with vertical tanks

3.5- Connect the flow pipes to the tank making sure to respect the minimum prescribed distance from the fixed point on the flanging on the pipe. This minimum distance must not be less than:
- twice (2) the diameter of the tank interior for vertical reservoirs
- one point five (1.5) times the length of the tank interior for horizontal tanks.

Should it prove impossible to respect this minimum distance, then add on a flexible joint with movement extension limiters to prevent the tank from being pushed during pressure build-up.

3.6- Leave the 15/21 purge drain tap open and use air or nitrogen to pre-inflate the tank. This tap is located near the water outlet.

Note: The bladder tank will only work correctly if it is adequately pre-inflated. This is true for all our tanks (see SPT0211 maintenance and start-up manual).

3.7- Use liquid soap to check all the tank seals on the taps, valves and plugs

3.8- Place the display unit on its stand.

3.9- Connect the cell(s) to the terminals 4 to 7 making sure that you respect the wire colors (see the terminal board diagram - chapter 7).

3.10- Connect the mains current supply to the terminals 1 to 3.

3.11- Adjusting the tare: Press the TARE display key to return "0" on the display.

3.12- Block the zero-tare setting (see "on-site tare blocking table" underneath)

3.13- Open the tank's isolation valve (located on the piping) adjusting the 15/21 tap on the outlet already fitted with a valve until the air in the piping has been expelled. Then close the isolation valve.

3.14- Let the tank build up to supply network pressure.

3.15- Once the tank has reached service pressure, check all seals with liquid soap once again (taps, valves, plugs).

Note: it is important that all tank seals be checked since mini-leaks can appear half-an-hour after starting up the tank. If there are leaks, then expel all air and water from the tank and use either Teflon Liquid to close the seal or else replace the leaking seal (LOCTITE). Then go back to 3.6.
Do NOT use oakum to repair damaged seals (IMPERATIVE).

If you follow all the above instructions, your tank will function correctly

HOW TO LOCK THE TARE

BUTTON	ACTION	ON THE SCREEN
ENTER during 3 seconds	Beginning of the set up and lock routine	-- -- -- --
APPUI SUR et >^	Code on the screen	0 0 0 0
ENTER		List
ENTER		TotLC
	Locking the set functions	1
APPUI SUR ^	Access to the TARE LOCK	0. 1
ENTER	Back to RUN mode	Weight of the liquid contained

When the set up routine of the tare is unlocked it is possible to set the weight signal monitored to zero. The vessel must then be connected to the pipe network and drained empty.
Press the TARE button and zero is monitored on the screen just before letting the system on duty under the RUN mode, the set up routine must be locked, with the value 1 affected to the TARE locked command.

4- ON-SITE SETTINGS FOR THE 10-VOLT HYDROCONTROL

KEYS	ACTION	DISPLAY
ENTER	Switch to program mode	DATA
3 X >	Access to program 3	SEtP
ENTER	Validation	SEtP
ENTER	Access to relay 1	0
[>] . . [^] . .	Relay setting 1 displayed	ex : 100.00
ENTER	Access to relay 2	0
[>] . . [^] . .	Relay setting 2 displayed	ex : 200.00
ENTER	Access to relay 3	0
[>] . . [^] . .	Relay setting 3 displayed	ex : 300.00
ENTER	Access to relay 4	0
[>] . . [^] . .	Relay setting 4 displayed	ex : 400.00
ESC	Return to RUN mode	Load on the cell
2 x [min/max]	This turns off the "max" and "min" LEDs	

5- SETTING CONFIGURATIONS

KEY	ACTION	DISPLAY
ENTER	Switch to operating mode	DATA
3 X >	Access to program 3	SEtP
ENTER	Validation	SEtp
[>]	Access to settings configuration mode	MOde
ENTER	Configuration of setting 1 (set on-site)	0
[NOTE]	Display the basic configuration	10000 *
ENTER	Configuration of setting 2 (set on-site)	0
[NOTE]	Display the basic configuration	10000 *
ENTER	Configuration of setting 3 (set on-site)	0
[NOTE]	Display the basic configuration	10000 *
ENTER	Configuration of setting 4 (set on-site)	0
[NOTE]	Display the basic configuration	10000 *
ESC	Return to RUN mode	LOAD ON THE CELL
2 x [min/max]	This turns off the "max" and "min" LEDs)	

NOTE

The thresholds may be activated by configuring the settings. To adjust all possible settings:

*****

1st digit on the left 0 = Relay out of service
1 = Relay in service

2nd digit on the left 0 = Close contact on pressure build-up
1 = Close contact on pressure fall-off

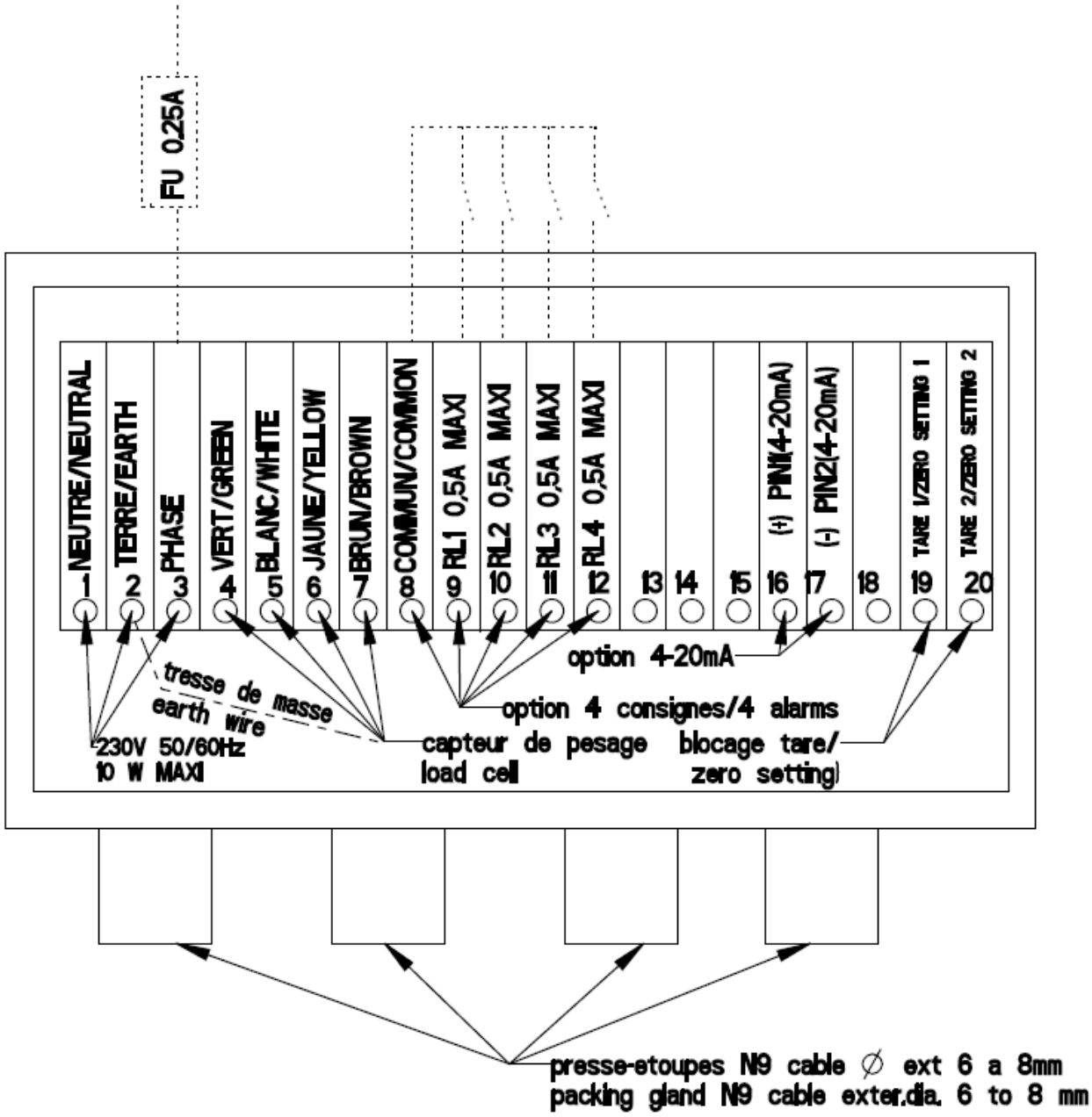
The other digits stay at 0

6- ADJUSTING THE ANALOG SETTINGS ON THE HYDROCONTROL

KEY	ACTION	DISPLAY
ENTER	Switch to programming mode	DATA
Nx >	Access to program 4	Anout
ENTER	Access to program 4A (choice of output)	tyPE
ENTER	Output type displayed 0 - 10 v	UdC
>	Output type modified 4/20 mA (Factory setting)	IdC
ENTER	Return to RUN mode	
ENTER	Switch to program mode	DATA
Nx >	Access to program 4	Anout
ENTER	Access to program 4A (choice of output)	tyPE
>	Scale displayed	SnSCL
ENTER	Low output level displayed (Factory setting)	0
ENTER	High output level displayed (Factory setting)	TANK CAPACITY
ENTER	Return to RUN mode.	
ENTER	Switch to program mode	DATA
Nx >	Access to program 4	Anout
ENTER	Access to program 4A (choice of output)	tyPE
2 x >	Access to the filter	FILt
ENTER +1x >	Filter on/off option (Factory setting)	on
ENTER	Return to RUN mode.)	

NOTE: The "min" and "max" LEDs are turned off by pressing the "max/min" key twice.

7- TERMINAL BOARD



NOTE: To connect several cells (4 maximum), connect wires of the same color to the corresponding terminal (parallel connection). Connect the ground strap to the ground.

8 - FACTORY SETTINGS FOR THE HYDROCONTROL 10-VOLT DISPLAY

KEY	ACTION	DISPLAY
ENTER	Switch to programming mode	DATA
[>]	Choice of program 1	CnInP
ENTER	Display the input range (Factory Setting)	15 MU
ESC	Return to RUN mode	
ENTER	Switch to programming mode	DATA
2 X >	Choice of program 2	CndSP
ENTER	Validation	SCAL
ENTER	Wait between parenthesis (Factory Setting)	0
ENTER	Validate the tare measurement (Factory Setting)	0
ENTER	Positioning of the comma placeholder (Factory Setting)	0
[>] . . . ENTER	Enter the sensitivity of the cell (Factory Setting)	10
(>). . . (^)	Enter the capacity of the cell (Factory Setting)	Depending on the type of cell(s)
ESC	Return to RUN mode	
2 X [min/max]	This turns off the "max" and "min" LEDs	