

# ATyS *D10* / *D20*

Remote interface



# Contents

<b>1. PRELIMINARY OPERATIONS</b>	<b>3</b>
<b>2. GENERAL INFORMATION</b>	<b>3</b>
<b>3. INSTALLATION</b>	<b>4</b>
3.1. MOUNTING	4
3.2. CONNECTION	4
3.3. CHARACTERISTICS	4
<b>4. OPERATION</b>	<b>5</b>
4.1. ATYS D10 DISPLAY	5
4.2. DISPLAY ATYS D20	6
4.2.1. KEYPAD D20	7
4.2.2. SOFTWARE VERSION	7
<b>5. PROGRAMMING ATYS D20</b>	<b>8</b>
5.2.1. PROGRAMMING EXAMPLE	9
5.2.2. ARCHITECTURE OF THE PROGRAMMING MENU ATYS D20	10
5.2.2.1. ARCHITECTURE VALID FOR ATYS 6M AND ATYS 6E (MASTER)	10
5.2.2.2. ARCHITECTURE VALID FOR ATYS M 6E (MASTER)	12
5.2.2.3. ARCHITECTURE VALID FOR ATYS P (MASTER)	14
5.2.2.4. ARCHITECTURE VALID FOR ATYS C30 (MASTER)	16
<b>6. CONFIGURATION AND CHARACTERISTICS OF VARIABLES FOR THE ATYS D20</b>	<b>17</b>
<b>7. OPERATION MODES (CONTROL OR TEST) ATYS D20</b>	<b>18</b>
7.1. BROWSING	18
7.2. OPERATION MODES (CONTROL OR TEST)	18
<b>8. OPERATION ATYS D20</b>	<b>19</b>
<b>9. ATYS D20 VISUALIZATION</b>	<b>20</b>
9.1. VISUALISATION MENU ARCHITECTURE	21
9.1.1. ARCHITECTURE VALID FOR ATYS 6M, ATYS 6E AND ATYS C30 (MASTER)	21
9.1.2. ARCHITECTURE VALID FOR ATYS P (MASTER)	22
9.2. EVENTS	24

# 1. Preliminary operations

For personnel and product safety, please read the contents of these operating instructions carefully before installation.

The following points should be checked upon product receipt:

- the packing is in good condition,
- the product has not been damaged during transportation,
- the product reference number conforms to your order,

## 2. General information

The ATyS D10 and ATyS D20 are remote interface modules that allow an easy remote for display and/or control for the following products:

Product ATyS master	Compatible display	
ATyS C30 		
ATyS M6e 		
ATyS d 		
ATyS t 		
ATyS g 		
ATyS p 		

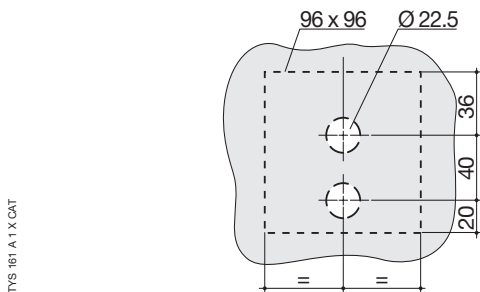
### Note :

The ATyS D10 and D20 are compatible with the previous range of ATyS 6e and ATyS 6m products.

## 3. Installation

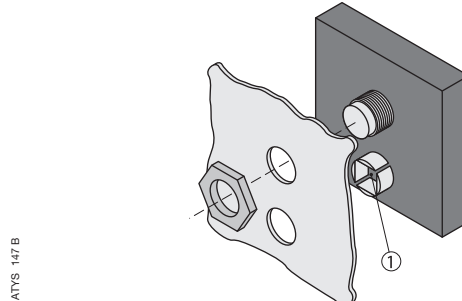
### 3.1. Mounting

Door fixing / 2 holes, diameter 22.5 mm  
Maximum thickness of the door: 20 mm



ATyS 161 A 1 X CAT

Drillings



ATyS 147 B

(1) RJ45 plug for ATyS connection

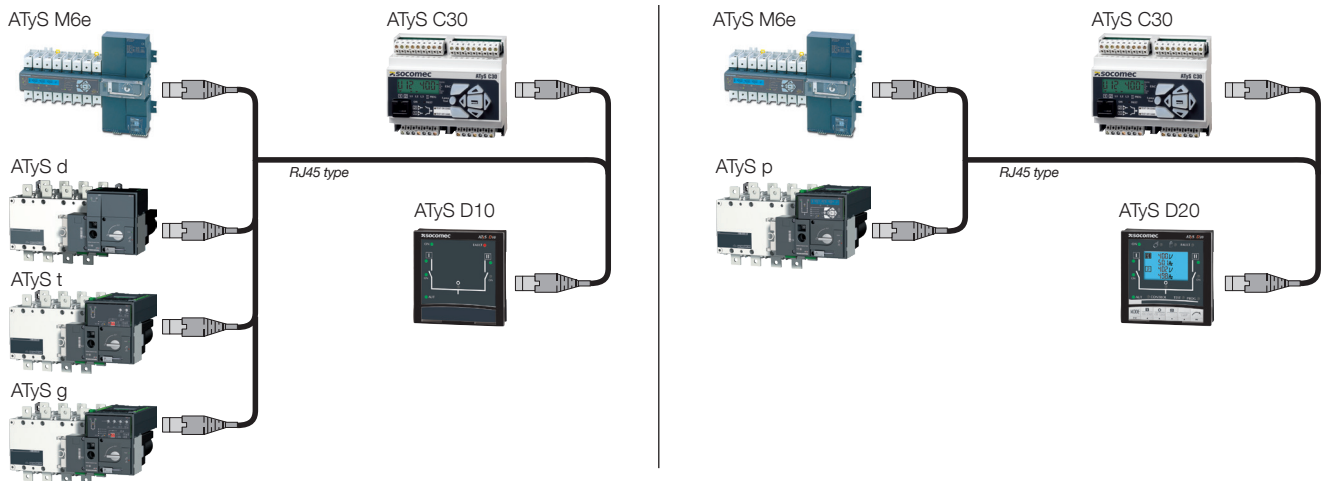
### 3.2. Connection

Connect only to products of type ATyS C30, ATyS M6e, ATyS d, ATyS t, ATyS g et ATyS p.  
(Compatible with the old ATyS range 6e and ATyS 6m).

> Cable

RJ45 8 wire straight-through, non isolated cable. Cable length:  $\leq 3$ m. Ref.: 1599 2009.

> Maximum length of the connection cable: 3 m



### 3.3. Characteristics

> IP

IP21 standard  
IP54 using gasket

> Operation

Temperature: -10 to + 55 °C  
Hygrometry: 80 % humidity at 55 °C  
95 % humidity at 40 °C

## 4. Operation

### 4.1. ATyS D10 display

The ATyS D10 allows remote display of the transfer switch: positions, source availability and operational modes.

Programming and operation remains available directly on the master product ATyS C30, ATyS M6e, ATyS d, ATyS t and ATyS g

(Compatible with the old ATyS range 6e and ATyS 6m).

- ATyS product fault, non-conform switching
- Possible to reset after fault is cleared. Switch off the power supplies of the master product for 3 minutes.

Source 1 available

Power on

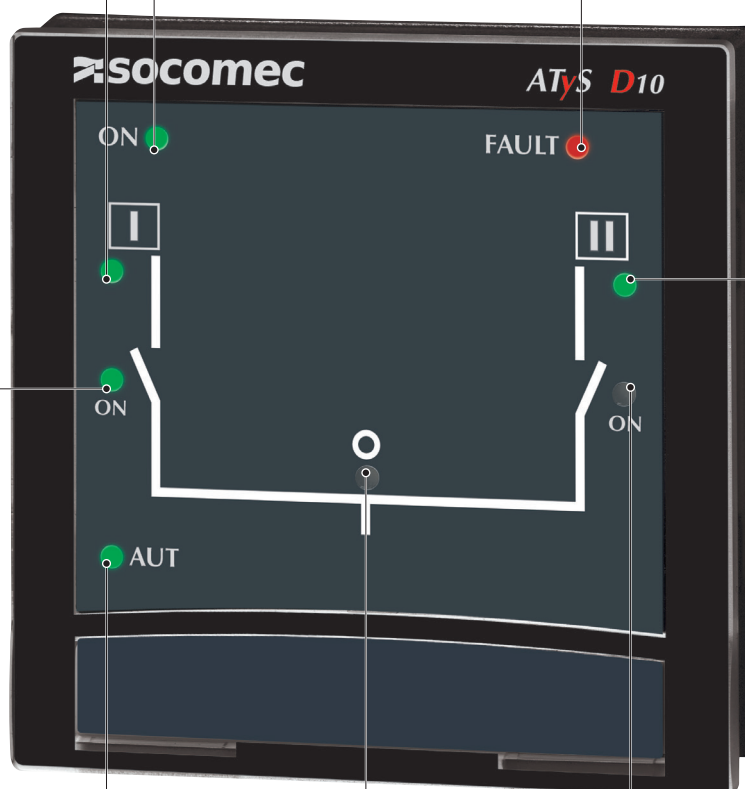
Transfer switch in position I

Source II available

Transfer switch in automatic mode

Transfer switch in position 0

Transfer switch in position II



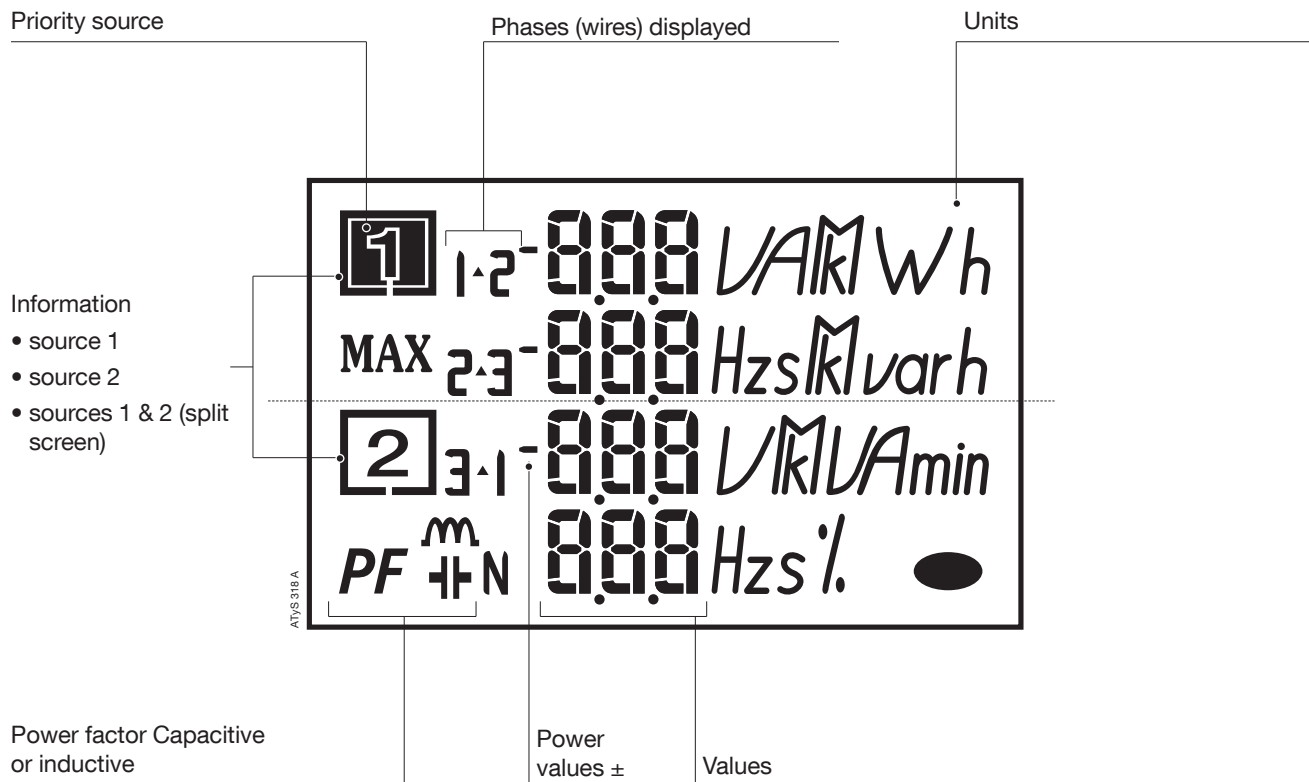
## 4.2. Display ATyS D20

The ATyS D20 allows remote display of transfer switch positions, source availability, operational modes and metering.

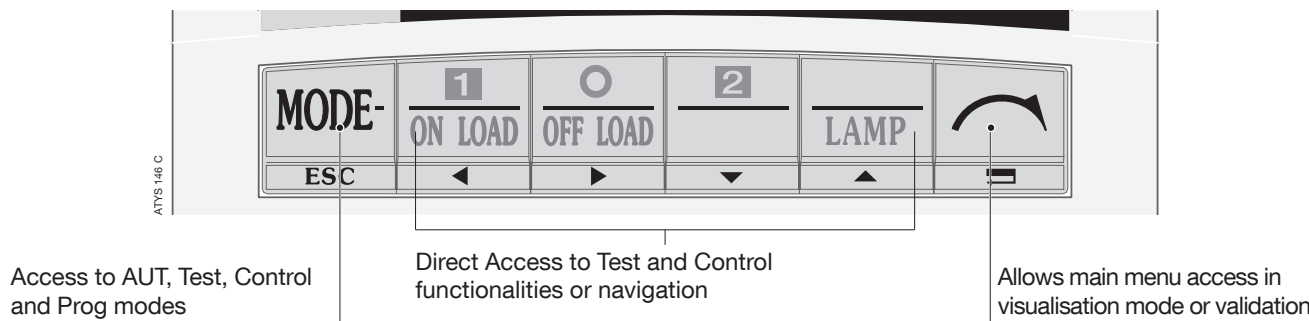
It also allows the control of product control and test operations as well as access to programming of all system parameters. The display of the ATyS product is inhibited when connected to the remote interface.

(Compatible only with ATyS p and the former ATyS 6e, ATyS 6m, ATyS C30 and ATyS M 6e).





#### 4.2.1. Keypad D20



#### 4.2.2. Software version

Software version of the master product is displayed immediately after power on.

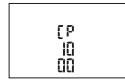


## 5. Programming ATyS D20

### > Enter into programming mode



- Step 1: Press 5 s "validation": PROG led becomes steady



- Step 2: Enter access code (1000 factory default) using the keypad "left", "right", "up" and "down"



- Step 3: Press the "validation" push button

### > Navigation in programming mode



- Step 1: To access the required menu, press the "right" and "left" navigation buttons



- Step 2: To access the parameter to be modified, press the "up" and "down" navigation buttons



- Step 3: To modify the parameter, press the "right" navigation button to make the parameter to be modified flash



- Step 4: Press the "up" and "down" buttons to increase or decrease the parameter values



- Step 5: Press "validation" push button to validate



If the parameter to be modified is displayed on 2 lines, press "validate" after modifying the first line to reach the next line



Allows to return to the main menu or to cancel the modification

### > Programming mode exit



- Step 1: Press the "ESC" push button when not entering any value, to return to the main programming menu



- Step 2: Press on "ESC" push button again to exit programming

New Active mode (Automatic or Manual) depends on the information from the master ATyS device.



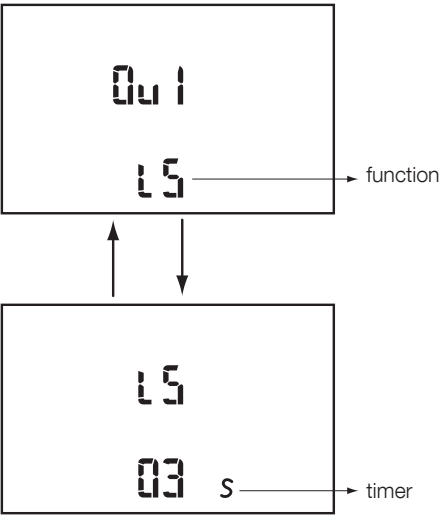
5.2.1. Programming example

Load shedding configuration: LS

LS variable allows programming the timer associated shedding.

OUT-PUT	Function	Setting range	Default values
01 to n	LS	0 to 60 s (≤DTT)*	2

\* In case the DTT variable configuration value is below the LS, value LS will be automatically set to the DTT value.



• Step 1: Press "right" push button to make the first variable blink

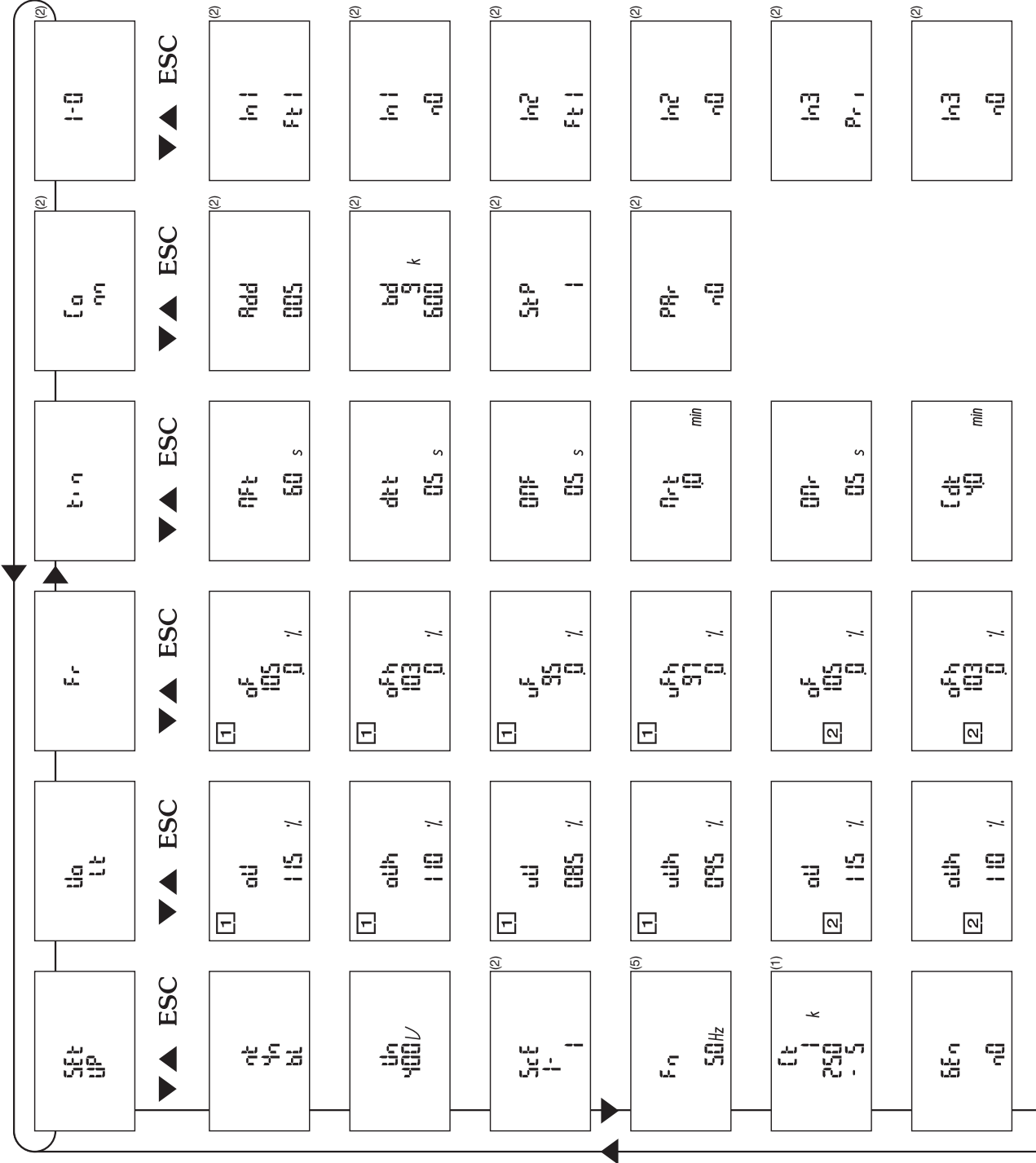
• Step 2: press "up" and "down" to modify the variable

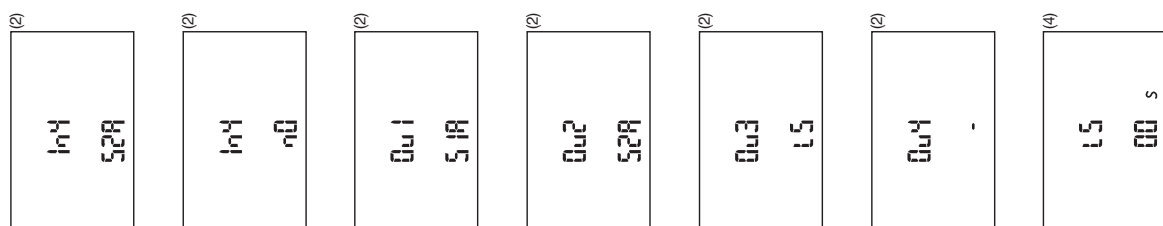
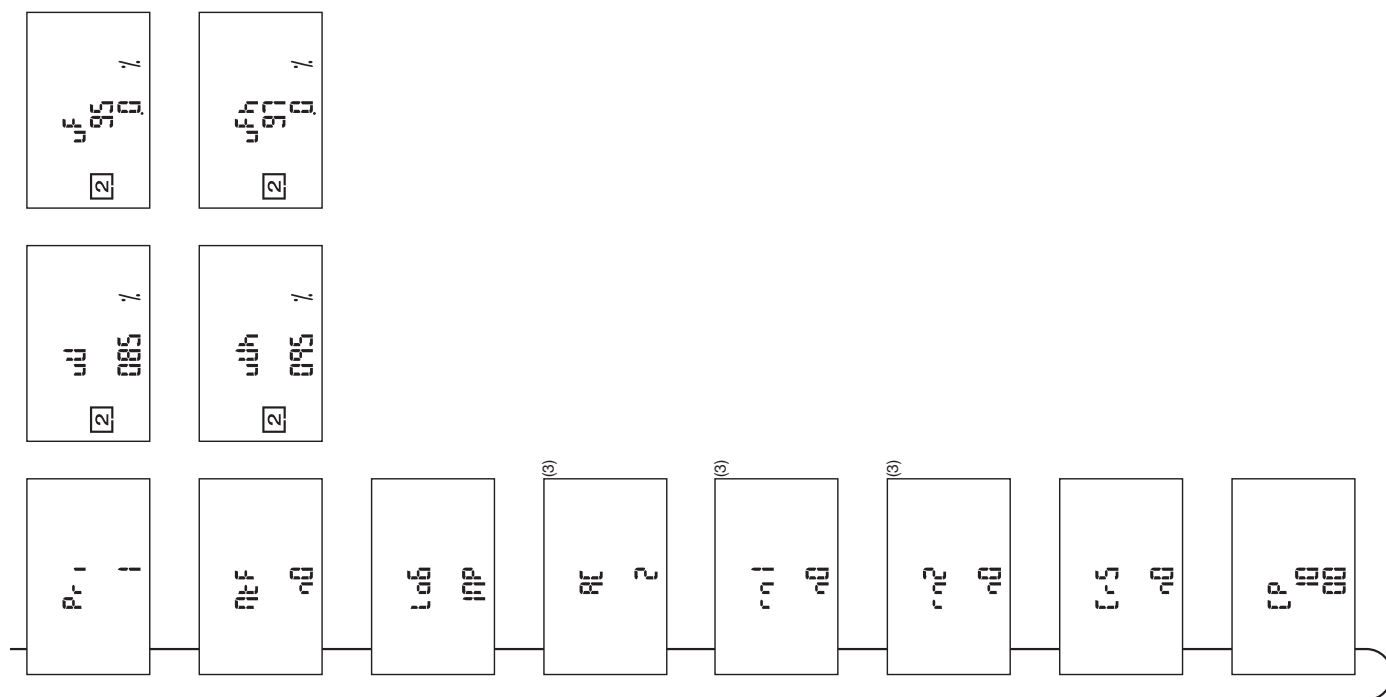
• Step 3: Press "validate" to validate the variable

• Step 4: Press "down" to access the nO selection

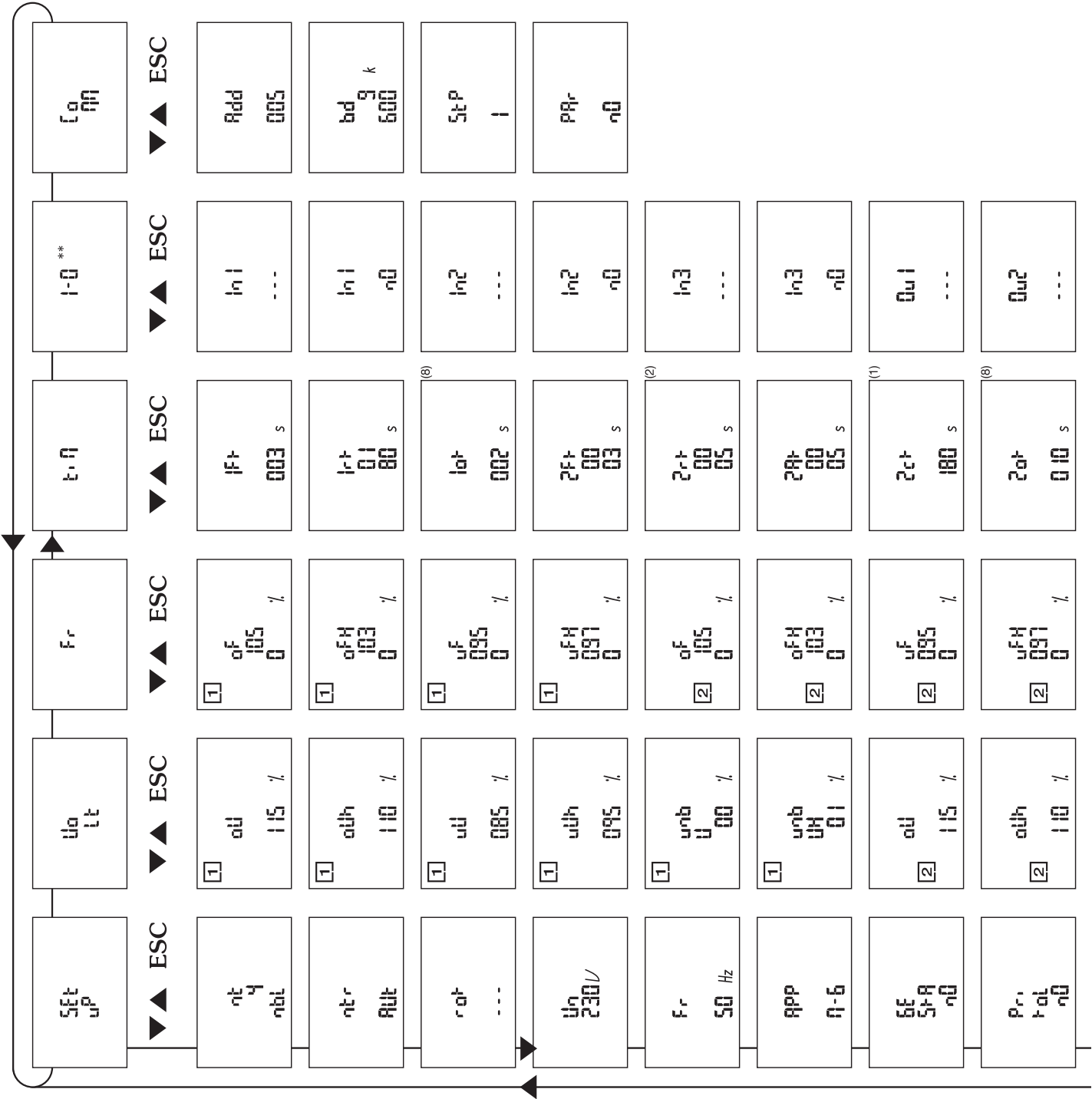
5.2.2. Architecture of the programming menu ATySD20

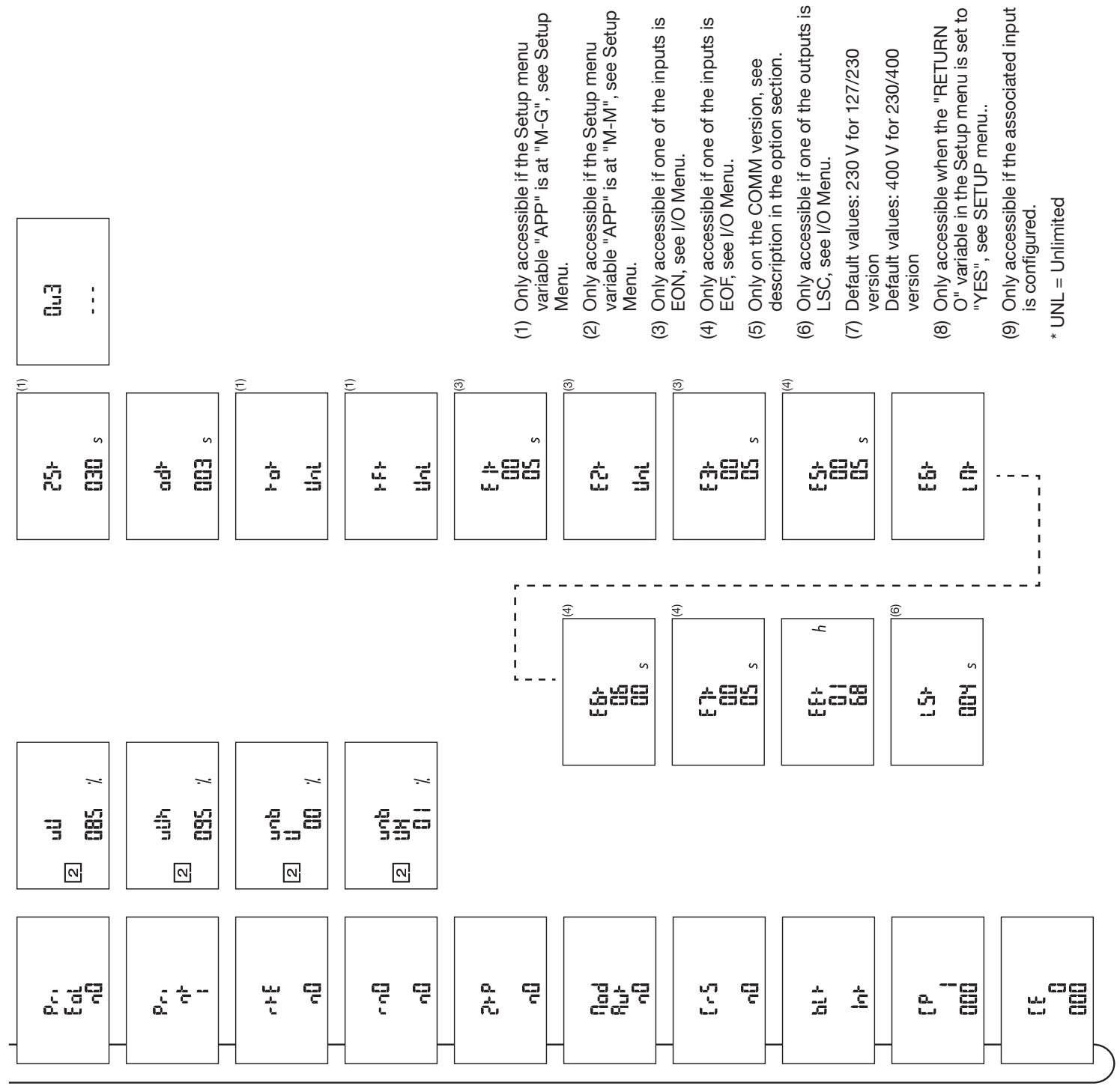
5.2.2.1. Architecture valid for ATyS 6m and ATyS 6e (master)





5.2.2.2. Architecture valid for ATyS M 6e (master)





### 5.2.2.3. Architecture valid for ATyS p (master)

Parameters configuration	Voltage thresholds and hysteresis configuration	Frequency thresholds and hysteresis configuration	Power thresholds and hysteresis configuration	Timers configuration	Inputs/Outputs configuration	Communication module	Date and time configuration	Maintenance mode
Sat up	Vo It	Fr	Pwr	tIm	I-O	Only with Comm/Eth opt Co MM	Dat tim	Mnt
nt 4 nbl	[1] oU 100 %	[1] oF 105 %	[1] oP 0 k 000	1Ft 0 000 s	In 1 --- n0	dh cP no	Yr 10	rSt EVE no
Aut Cnf no	[1] oUH 100 %	[1] oFH 103 %	[1] oPH 0 k 000	1rt 0 000 s	In 2 --- n0	IP 1-2 000 000	Mon 01	crS no
ntr Aut	[1] uU 100 %	[1] uF 95 %	[2] oP 0 k 000	2Ft 0 000 s	In 3 --- n0	IP 3-4 000 000	dAY 01	rSt no
rot Aut	[1] uUH 100 %	[1] uFH 97 %	[2] oPH 0 k 000	2rt 0 000 s	In 4 --- n0	Gat 1-2 000 000	Hr 00	
Un 400 V	[1] unb U 01 %	[2] oF 105 %		2At 0 000 s	In 5 --- n0	Gat 3-4 000 000	Min 00	
Fn 50 Hz	[1] unb Uh 00 %	[2] oFH 103 %		2ct 0 000 s	In 6 --- n0	MSK 1-2 000 000	SEC 00	
APP M-M	[2] oU 100 %	[2] uF 95 %		2St 0 000 s	In 7 --- n0	MSK 3-4 000 000		
Pri ton YES	[2] oUH 100 %	[2] uFH 97 %		odt 0 000 s	In 8 --- n0	Add 005		
Pri Eon YES	[2] uU 100 %			(1) tot LIM	In 9 --- n0	bd 9 k 600		
Pri net 0	[2] uUH 100 %			(1) tot 0 000 s	In 10 --- n0	StP 1		
rtE YES	[2] unb U 01 %			t3t 0 000 s	In 11 --- n0	Par no E		

CT	unb
Pri	Uh
00	00
%	%

[2]

CT	SEC
1	%

S1	sw2
no	

bit	Int
-----	-----

Postcode	1
	000

CE	0
	000

bAc	UP
SAV	E

In	12
---	---
n0	n0

In	13
---	---
n0	n0

In	14
---	---
n0	n0

Out	1
---	---
n0	n0

Out	2
---	---
n0	n0

Out	3
---	---
n0	n0

Out	4
---	---
n0	n0

Out	5
---	---
n0	n0

Out	6
---	---
n0	n0

Out	7
---	---
n0	n0

Out	8
---	---
n0	n0

Out	9
---	---
n0	n0

(1)

tft	LIM
-----	-----

(1)

tft	0
000	s

(3)

E1t	0
000	s

(3)

E2t	LIM
-----	-----

(3)

E2t	0
000	s

(3)

E3t	0
000	s

(4)

E5t	0
000	s

(4)

E6t	LIM
-----	-----

(4)

E6t	0
000	s

(4)

E7t	0
000	s

(5)

LSt	0
000	s

(6)

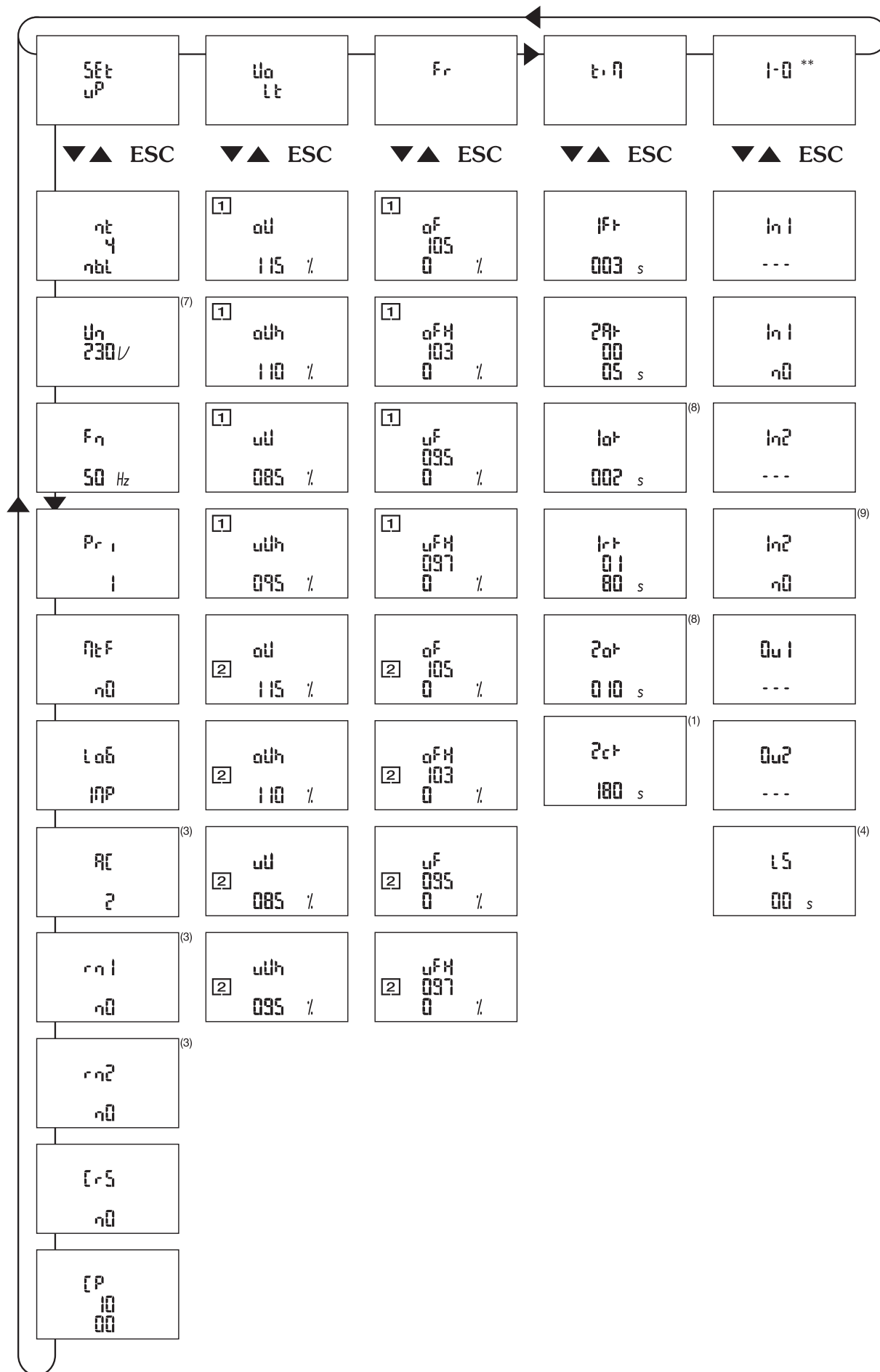
EET	0
000	h

(6)

EDT	0
000	s

- (1) Only accessible if the Setup menu variable "APP" is at "M-G", see Setup Menu
- (2) Only accessible if the Setup menu variable "APP" is at "M-M", see Setup Menu
- (3) Only accessible if one of the inputs is EON, see I/O Menu
- (4) Only accessible if one of the inputs is EOF, see I/O Menu
- (5) Only accessible if one of the outputs is LSC, see I/O Menu
- (6) Accessible only when output is EES

#### 5.2.2.4. Architecture valid for ATyS C30 (master)





## 6. Configuration and characteristics of variables for the ATyS D20

See the manual ATyS instruction to your master product for details:  
Download from: [www.socomec.com](http://www.socomec.com)

- Setup
- Voltage threshold
- Frequency threshold
- Timers
- Communication
- Inputs / Outputs
- Date and time (ATyS p)
- Power threshold (ATyS p)

## 7. Operation Modes (Control or test) ATyS D20

It is possible to start test sequences or to electrically control the changeover switch from the ATyS D20 keypad.

### 7.1. Browsing

#### > Enter Control or Test modes



- Step 1: Press the "mode" push button until Control or Test led is blinking



- Step 2: Press "validate"; the Control or Test LED then becomes fixed

CONTROL MODE

Access code is displayed

TEST MODE

It is possible to test the LEDs and LCD without entering any code by pressing



Test on load or test off load access codes are displayed after pressing



or



Enter the access code (0000) using the "left", "right", "up" and "down" buttons



Press "validate".

### 7.2. Operation Modes (Control or test)

#### > Exit control or test modes



Press "ESC" push button

Return to any active mode (Automatic or Manual) depends on information from the master ATyS device.

#### > Use of Control or Test modes

To run a test, press buttons



and



To electrically switch positions, press buttons



.

## 8. Operation ATyS D20

Refer to the ATyS instruction manual of your master product for operation:

- source control,
- test sequences,
- loss of priority source sequence in automatic mode,
- back priority sequence source in automatic mode.

Download from: [www.socomec.com](http://www.socomec.com)

# 9. ATyS D20 visualization

It is possible to display controlled parameters in both automatic and manual modes (but not during program-ming).

No code is required to perform visualization.

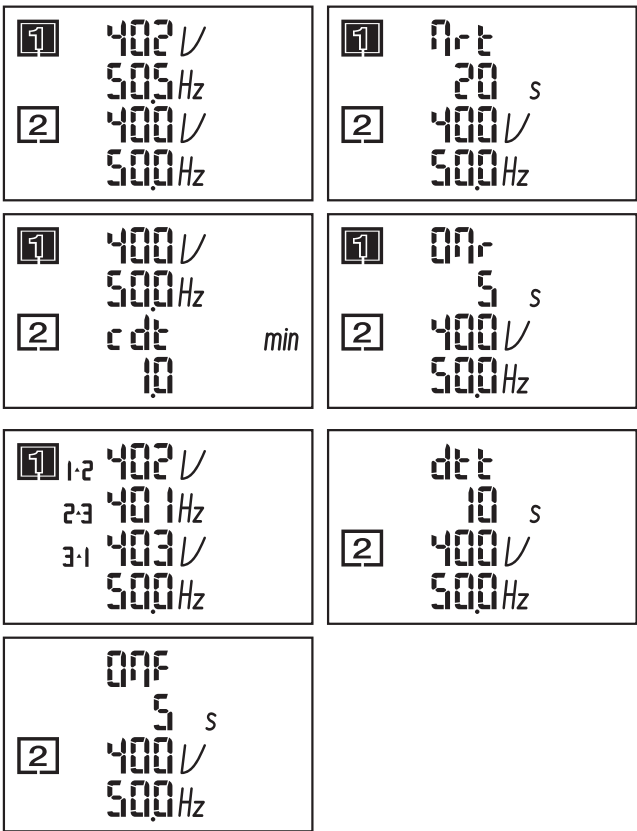
Permutation cycles have priority over visualisation and display timer countdown during cycle operation.

Without keypad activation or any operational sequence during 5 minutes, the LCD returns to default display mode and switches off the backlight.

➤ If both sources are available :

- One visualisation screen is split into 2 parts and displays simultaneously voltage and frequency values on both networks.
- If a timer is active on one of the sources, its count-down is displayed instead of voltage and frequency values.

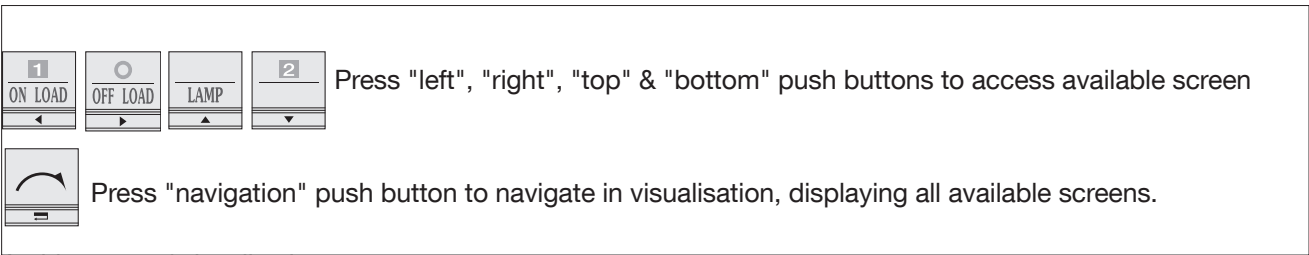
Examples:



➤ If only one source is present:

- During permutation cycle, voltage and frequency values of the available source (active) are displayed on 2 lines. The name of the active timer and its countdown are displayed on remaining 2 lines.
- Out of a permutation cycle, phase to phase voltages and frequency are displayed.

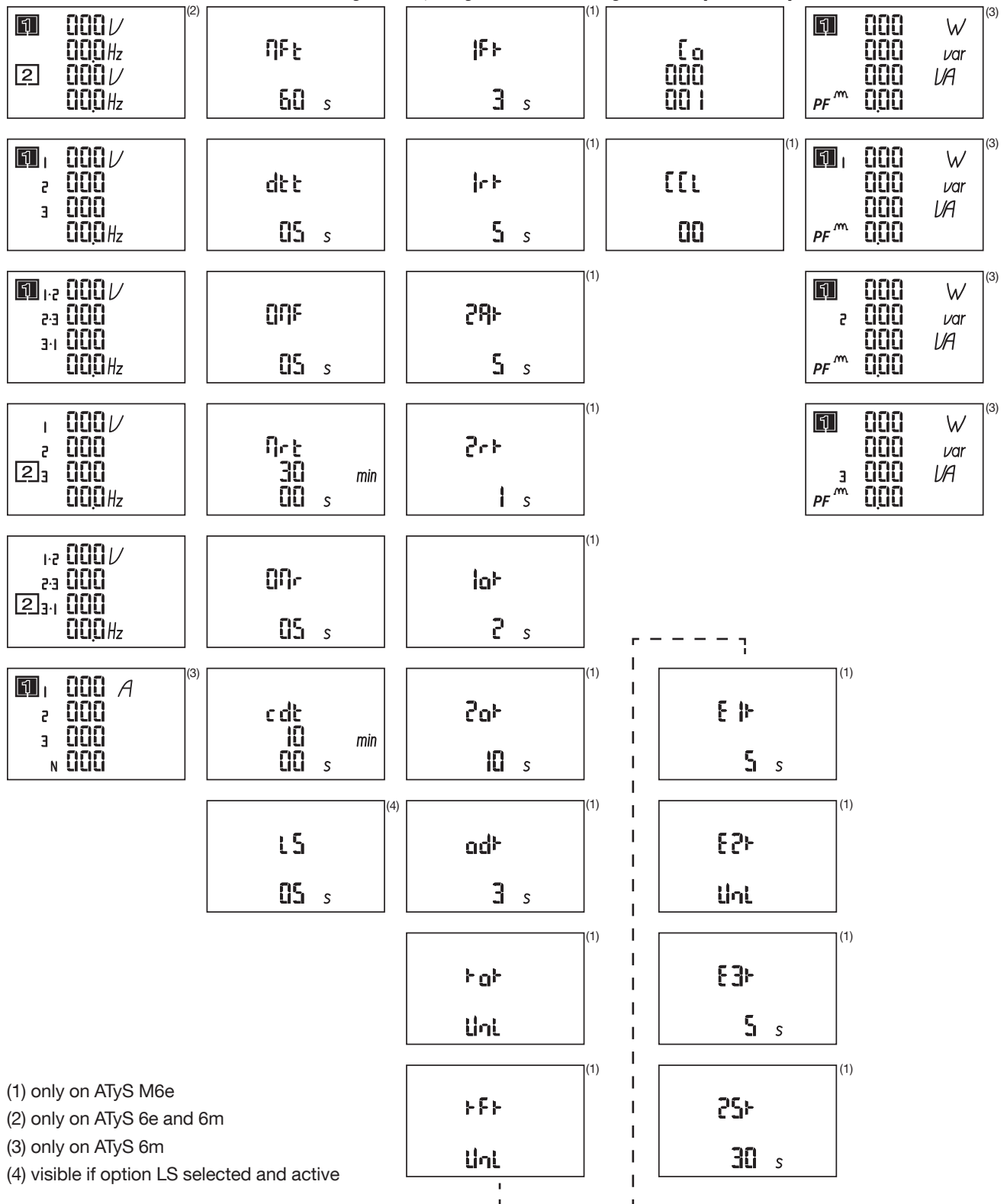
Examples:



Architecture of visualization menu

## 9.1. Visualisation menu architecture

### 9.1.1. Architecture valid for ATyS 6m, ATyS 6e and ATyS C30 (master)



## 9.1.2. Architecture valid for ATyS p (master)

Volt	Curr	Pow	Ene	TiM	DAt TiM	EVE
[1] 1-2 0 V (1) 2-3 0 3-1 0 0 Hz	[1] 1 0 A 2 0 3 0 N 0	[1] 1 0 W 0 VAR. 0 VA PF 0	[1] EAp tot 000 000	1Ft  0 s	dAt 01 01 01	F00 OP FCT
[1] 1 0 V (1) 2 0 3 0 0 Hz	1 0 A 2 0 [2] 3 0 N 0	[1] 0 W 2 0 VAR. 0 VA PF 0	[1] EAn tot 000 000	1rt  0 s	tiM 00 h 00 min 00 s	F03 ntr
1-2 0 V (1) 2-3 0 [2] 3-1 0 0 Hz		[1] 0 W 0 VAR. 3 0 VA PF 0	[1] EQp tot 000 000	2Ft  0 s		F11 Flt 1
1 0 V (1) 2 0 [2] 3 0 0 Hz		[1] 0 W 0 VAR. 0 VA PF 0	[1] EQn tot 000 000	2At  0 s		F21 Flt 2
[1] 0 V (1) 0 Hz [2] 0 V 0 Hz		1 0 W 0 VAR. 0 VA PF 0	[1] ES tot 000 000	2ct  0 s		F12 Alr 1
		[1] 0 W 2 0 VAR. 0 VA PF 0	[1] EAp PAr 000 000	odt  0 s		F22 Alr 2
		0 W 0 VAR. [2] 3 0 VA PF 0	[1] EAn PAr 000 000	tot  0 s		F13 Rot 1
		0 W 0 VAR. [2] 0 VA PF 0	[1] EQp PAr 000 000	t3t  0 s		F23 Rot 2
			[1] EQn PAr 000 000	tFt  0 s		F17 Unb 1
			[1] ES PAr 000 000	E1t  0 s		F27 Unb 2
			[1] EAp COM 000 000	E2t  0 s		F06 POS 0
			[1] EAn COM 000 000	E3t  0 s		F16 POS 1
			[1] EQp COM (2) 000 000	E5t  0 s		F26 POS 2
			[1] EQn COM (2) 000 000	E6t  0 s		F08 Man Flt
			[1] ES COM 000 000	E7t  0 s		F09 Mot Flt
			EAp tot [2] 000 000	2St  0 s		F07 Aut Cnf
			EAn tot [2] 000 000	LSt  0 s		Ev1 id 4 000
			EQp (2)	EET		Ev1

Volt	Curr	Pow	Ene	TiM	DAt TiM	EVE
			tot [2] 000 000	0 000 h		01 01 01
			EQn tot [2] 000 000	(2) EDT 0 000 s		Ev1 00 h 00 min 00 s
			ES tot [2] 000 000			Ev2 id 4 000
			EAp PAr [2] 000 000			Ev2 01 01 01
			EAn PAr [2] 000 000			Ev2 00 h 00 min 00 s
			EQp PAr [2] 000 000			Ev3 id 4 000
			EQn PAr [2] 000 000			Ev3 01 01 01
			ES PAr [2] 000 000			Ev3 00 h 00 min 00 s
			EAp COM [2] 000 000			Ev4 id 4 000
			EAn COM [2] 000 000			Ev4 01 01 01
			EQp COM [2] 000 000			Ev4 00 h 00 min 00 s
			EQn COM [2] 000 000			Ev5 id 4 000
			ES COM [2] 000 000			Ev5 01 01 01
						Ev5 00 h 00 min 00 s

(1) The display depends on the network configuration  
(2) Visible only if an output is configured EES

## 9.2. Events

Valid only for ATyS p and ATyS M6e (master)

Event	Display	Event	Display
Fail start	FAI LSt	Phase rotation defect on source 2	F23 ROT 2
Retransfer confirmation	ret rAn SF?	Capacitor defect on source 2 Not possible on P87	F24 CAP 2
End of TOF (Test of load)	StP tOF ?	Power less to switch source 2 Not possible on P87	F25 Pwr 2
Operating Factor Fault	F00 OP FAC TOR	Position 2 not reached	F26 POS 2
Neutral Fault	F03 Neu Tr	Position 0 not reached	F06 POS 0
External fault 1 with 0 return	F11 FLT 1	Main fault	F08 Man Flt
External fault 1 without 0 return	F12 ALR 1	Motor fault	F09 Mot Flt
Phase rotation defect on source 1	F13 ROT 1	Product version	ATS VER 100
Capacitor defect on source 1 Not possible on P87	F14 CAP 1	Source 1 unbalanced	F17 Unb 1
Power less to switch source 1 Not possible on P87	F15 Pwr 1	Source 2 unbalanced	F27 Unb 2
Position 1 not reached	F16 POS 1	Autoconf failed	F07 Aut Cnf
External fault 2 with 0 return	F21 FLT 2	User backup settings saved / settings saved	SAV Ed
External fault 2 without 0 return	F22 FLT 2	User backup settings loaded	LOA dEd





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