

UWP 3.0 Driver Notes for ATyS p M with Integrated Communication

Using this manual

Safety Precautions

Authorised Personnel Only

The product or system described in this documentation must be installed, operated, and maintained by qualified personnel only. NHP accept no responsibility for the consequences of the use of this equipment by unqualified personnel.

A qualified person is one with the necessary skills and knowledge of the construction and operation of the installation of electrical equipment and has been trained to identify and avoid risks.

Appropriate use of NHP, Carlo Gavazzi / SOCOMEC products

NHP, Carlo Gavazzi or SOCOMEC products are intended to be used only for the applications described in the catalogue and technical documentation, which is dedicated to them. If products and components from other manufacturers are used, they must be recommended or approved by NHP, Carlo Gavazzi or SOCOMEC.

Appropriate use of NHP, Carlo Gavazzi or SOCOMEC products during transport, storage, installation, assembly, commissioning, operation, and maintenance is necessary to ensure safe operation and without any problems.

The permissible ambient conditions must be met. The information contained in the technical documentation must be observed.

Publication of responsibility

The contents of this document have been reviewed to ensure that the reliability of the information is correct at time of publication.

NHP, Carlo Gavazzi or SOCOMEC are not responsible for printing or damage resulting from errors. NHP, Carlo Gavazzi or SOCOMEC reserve the right to make corrections and changes needed in subsequent edition.

Firmware Notice

The firmware of the products at the creation of the driver is listed below. Errors experienced while using this document may be due to miss matched firmware version. If errors are experienced after a firmware upgrade has been completed, please contact NHP for the latest version of the driver.

This manual has been developed with UWP Firmware V8.4.0.3.



Summary of Changes

This section highlights the details of changes made since the previous issue of this document.

The versioning convention used to track changes in this document follows the structure V**x.y.z** where:

x: Major revision, where extensive changes are made which is generally incompatible with the previous version. Such changes may include new firmware upgrade and/or features, or removal of information which is no longer relevant or applicable to the previous version.

y: Minor revision, where changes made do not change the overall scope of the previous version but may include additional information which complements or corrects the previous version or provides additional clarity on an existing topic.

z: Patch version, where small changes are made to correct minor errors or adjust existing text, charts, figures and/or images, and which do not add or remove information from the previous version. Example changes may include spelling corrections, image re-sizing and adjustments, updated images, etc.

Version	Publication date	Changes	Ву
V 1.0.0		Initial release	F.G.



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Introduction

The UWP 3.0 has the capability to centralise multiple meters and power components with Modbus RTU or TCP capability. It can act as a central point of information or a gateway to a larger building management or energy management system. To reduce UWP 3.0 commissioning time, drivers have been created for NHP's meters and power components.

This user manual outlines the variables included in the ATyS p M driver and their respective placement within the Modbus address map. The driver has been created for monitoring purposes only, no write functions have been included in this version. To obtain the write functionality offered by the ATyS p M, alternate products must be used.

Variables for the extra I/O modules, control functions, LED indications and communication settings of the ATyS p M have been excluded from this version of the driver.

Who Should Use This Manual?

This manual aims to provide users, electricians, panel builders and maintenance personnel, with the technical information required for commissioning and operation of the NHP/Carlo Gavazzi UWP3.0 and NHP/SOCOMEC ATyS p M automatic transfer switch together.

Users of this document must have at minimum a basic understanding of the following:

- Modbus RTU communication
- Serial RS-485 wiring practices
- Electrical circuit protection

Applicable Products

- UWP 3.0
 - Product ID: UWP30RSEXXX
- ATyS p M Auto Transfer Switch with COMMS, part numbers:

93844004	18844006
93844006	18844008
93844008	18844010
93844010	18844012
93844012	18844016
93844016	

Wiring and installation instruction of these products can be found in the respective product's user manual. Please see additional resources section for links.



Additional resources

The following resources contain additional information which should be read in conjunction with this document.

Resource	Description
ATyS p M Instruction Manual	Information on installing, mounting, wiring, and Modbus map for ATyS p M Communication Module.
UWP 3.0 Installation Manual	Information on installing, mounting, wiring the UWP 3.0 Module.
UWP 3.0 Tool User Manual	Information on configuring and commission the UWP 3.0 Module.
UWP 3.0 WebApp User Manual	Information on setting up the monitoring page, reoccurring reports, and alarms UWP 3.0 Module.

Terminology and Abbreviations

Abbreviation	Description	Abbreviation	Description
0DT	Dead Timer	MOD AUT	Automatic mode
AL	Alarm	NBL	Network Balance
AT	Available Timer	OP FCT	Operating Factor (Duty Cycle)
BET	Motor	OT	Return to Zero Timer
САР	Return to Zero Capacitor	POS	Position Fault
СТ	Cool Down Timer	PRIO EON	Priority External on Load
E1T	On Load External Operation (Start)	PRIO NET	Priority Network
E2T	On Load External Operation (Duration)	PRIO TON	Priority On Load Test
E3T	On Load External Operation (End)	PWR	Insufficient Switchover Power
E5T	Off Load External Operation (Start)	ROT	Phase Rotation
E6T	Off Load External Operation (Duration)	RT	Return Timer
E7T	Off Load External Operation (End)	RTE	Back Transfer
EET	Programming Genset Starting Time Delay	ST	Start Timer
EOF	External Off Load	TFT	Test Off Load Timer
EON	External On Load	THD	Total Harmonic Distortion
FT/ FLT	Fault Time	TOF	Off Load Test
Hz and F	Frequency	TON	On Load Test
LCD	Liquid Crystal Display (LCD)	тот	Test On Load Timer
LED	Light Emitting Diode	TON	On Load Test
LST	Load Shedding Timer		



Adding the Driver to UWP 3.0 Software

- 1. Download G_SOCOMEC_ATyS_pM_Vx_x.xml file from the <u>NHP Energy management website</u>.
- 2. In the UWP Tool, go to the Modbus tab, then Import/Export Driver.

			🔊 🗈 🖻	🕨 🕂 (P 🕂 🕇	. 🔍 🖳 🗙	
File	Views	Reports	Add Prog	ıram setup	Modbus	Database	Help
Save modbus map as .csv	Modbus map	Modbus frame editor	Modbus converter	Modbus Commande	r	Import / Export driver •	
		Modbus			Imp	ort / Export drive	er
Locations							

3. Select, Add new ModBus device.

) 🗄		🔅 🕞 🛢) 1 🗰	P 🕂	ł		- 1 >				U١	VP 3.0	Tool *[File no	t saved] - 8.4.
	File	Views	Reports	Add Prog	ram setup	Modb	ous	Data	base	Help								
Save ma	e modbus p as .csv	Modbus map	Modbus frame editor	e Modbus converter	Modbus Commander	r		Impo Export d	rt / river •									
			Modbus				Im		Add n	ew Mo	odbus d	evice						
Loca	ations							_	, taa n		abus a							
								Ð	Conne	ect to L	JWP/Sx	2WEB/VN	AUC	•				
		Root	at Castan f					Þ	Expor	UWP	Control	ler driver	r					
		(rx) KO	ot - system it	Inction														

4. Select the folder to browse your documents for the downloaded file. Then click import.

Import xml	file _ 🗆 🗙
XML file	
	Cancel Import



								New Driv Filter option
Name 🗕	Brand		Version	Driver Id	Device Type	Status	Last Build	Locked
APF, SVG, TPFC V1.0	Delta		1.1	6656152	Generic	Activated	13-01-2022 10:49:25	
ATyS P V1.0-Ethernet	SOCOMEC		0.3	7205785	Generic	Activated	12-01-2022 11:09:31	-
ATyS P V1.0-RS485	SOCOMEC		0.8	6656152	Generic	Activated	12-01-2022 11:41:41	•
ATyS pM V1.0	SOCOMEC	æ	Ruild		Generic	Activated	10-01-2022 14:37:45	_
CPA050	CARLO GAVAZZI	8	Test	43	PowerQualityAnalyser	Activated	10-03-2017 00:21:59	0
CPA300	CARLO GAVAZZI	٢	Rollback	44	PowerQualityAnalyser	Activated	10-03-2017 00:22:42	?
CPA300V	CARLO GAVAZZI	0	Activate	57	PowerQualityAnalyser	Activated	02-07-2017 21:21:37	P
CPT_ADVANCED	CARLO GAVAZZI		Export	02	PowerTransducer	Activated	26-02-2018 21:53:35	
CPT_BASIC	CARLO GAVAZZI	0	New Driver	01	PowerTransducer	Activated	10-12-2015 21:56:17	P
EM100_FAMILY	CARLO GAVAZZI		Edit Selection	39	EnergyMeter	Activated	01-10-2020 19:41:52	0
EM100_FIELD_TEST	CARLO GAVAZZI	W	Delete Selection	n 96	EnergyMeter	Activated	20-03-2018 20:55:50	?
EM111_SFA	CARLO GAVAZZI	_	3.1	172	EnergyMeter	Activated	01-10-2020 19:51:49	0
EM112	CARLO GAVAZZI		3.5	128	EnergyMeter	Activated	05-10-2020 20:39:18	0
EM112_SFA	CARLO GAVAZZI		3.1	173	EnergyMeter	Activated	01-10-2020 19:51:34	<u></u>
EM10	CADIO GAVA77		2.2	72	EnormiMotor	Activated	10 10 2015 22:00:57	

5. Open the Modbus Commander. Select the newly imported driver from the list. Right-click to Build and Activate.

It is now available to be added as a Modbus RTU module into the project.



Adding ATyS p M as a Module to your project

6. Go to Add, then Bus – Name the bus and click confirm. Using RTU in this example:

Add a b	us	×	
	SH2MCG24	Net 1	
	SH2WBU230	Wireless 1	
	SH2WBU230N	Wireless 1	
	SBP2MCG324	Net 1	
• 🦦	RS485 COM1, Modbus serial port	COM 1	
	RS485 COM2, Modbus serial port	COM 2	
<i>p</i> *	TCP/IP Modbus master	TCP / IP	∓ × Filter options ♥
	TCP/IP Modbus master for generic d	TCP / IP	▲ Find
	(Cancel Confirm	
			-

7. Select the new bus and click Module. Select the ATyS $p\ M$ driver

Wizard			
Add n	nodule Module		
		Select mo	odule
Wizard steps	Groups	Search	
Select module	Drivers list	ATyS-pM-V1.0Monitoring-Only	Description
Input signals Output signals Diagnostic signals Properties O Advanced	Show all	APF,-SVG,-TPFC-V1.0Power-Quality TemCom-ProTembreak-Pro-Faults- AGR21C-and-AR31C-V1.0ACB ATyS-P-V1.0-RS485Monitoring-On TEMPLATE-3P3P TEMPLATE-3P2P TEMPLATE-3P3P/3.1P	Nodbus device
		TEMPLATE-3P1P/3.1P TEMPLATE-1P1P	Number of elements
		>	Cancel Confirm



 Before clicking on confirm go to properties and check the Modbus ID matches that of the ATyS p M module (please refer to Section 13.9 on page 65 of the ATyS p M instruction manual for communication address and designation details.) Click confirm.

Wizard		n x
Add mod	ule Module	
	Properties	
Wizard steps	Name K4 ATyS-pM-V1.0Monitoring-Only	
Select module	Subnet COM 1	
Input signals	Properties Info	
Output signals	Modbus ID 1 🕄 Converter	
Diagnostic signals	Data length 8 Raud rate 9600 R Parity NONE Stop hit 1	
Properties		
 Advanced 	Signal group name Group phase	=
	Ver Load	
	Source Voltages	
	Vimer Delay Values	
	Statuses - Source	
	Statuses - Alarm	
	Statuses - Test	•
	Cancel Confirm	

- 9. For ease of monitoring and future maintenance, the location and naming conventions of the module can be changed at this stage.
 - a. To add a location, click Location. Name and select the location type you can choose room or building names. Here we have chosen to represent the module by levels. Click confirm.

) () 🗎		A O L	19 1 9 T	@ ± ±		= (X)	9
Fi V	le View	s Report:	Add	Program setup	Modbus	Datab	ase He	lp
	٣	自			l	8	14	1.3
Bus generator *	Module	Location	Light & scenario *	Up and down control*	Temperature	Alarm *	Calendar	Sequence
Master	Modules	Locations						

- b. Once the location is added, click on the module icon.
- c. Go to advanced -> tick location -> select the location for the module to be assigned to. Click confirm.

Edit module	Module		
		Location	
Wizard steps	- 😽 Root		A
Output signals	Level 1		
Diagnostic signals			
Properties			
Advanced			
Location			
Location			
			•
	***	ſ	Confirm



- 10. Before the setup can be compiled and sent to the controller, you will need to choose how often the data needs to be read.
 - a. Under the Database tab, go to Database Management
 - b. Tick events and data log for the variables to be read and pick a sampling time (1 hour)
 - c. Confirm

Databa	se man	ager											_ = >
Relat	ionship	Relationship Editor											
	Filter options 🔿												
	ollapse	all Expand all										Published	
	_	Name	Part number	Location	Subnet	SIN	🗹 Events log	🗹 Data log	Avg	Enable Min/N	Number of sa	Relationship n	Realtime
	1	K4 ATyS-pM-V1.0Monitoring-Only	ATyS-pM-V1.0	Root					1 (h)				^
	(1: Load.Hz	ATyS-pM-V1.0	Root	COM 1		\checkmark		1 (h) 💽			Hz 💽	
	-	2: Load.V L1-L2	ATyS-pM-V1.0	Root	COM 1				1 (h)			V L1-L2	
	-	3: Load.V L1-N	ATyS-pM-V1.0	Root	COM 1		\checkmark		1 (h) 🔽			V L1-N	
	-	4: Load.V L2-L3	ATyS-pM-V1.0	Root	COM 1				1 (h)			V L2-L3	
	-	5: Load.V L2-N	ATyS-pM-V1.0	Root	COM 1				1 (h)			V L2-N	

11. Under the File menu, compile the project and download to controller.



Modbus Communication Address Map

The grouping of the variables has been changed from the original map for the ease of monitoring and grouping on the UWP WebApp. The descriptions in this document are more detailed than the driver as this can be used as a reference.

Counter Values

Function 3 Code (read only)

Hex. Address	Word count	Description	Unit	Place in ATyS p M Modbus Map
500A	1	Position I Switches (Operations)		13.9.4 Status
500B	1	Position II Switches (Operations)		13.9.4 Status
5009	1	Total Cycles counter		13.9.4 Status

Load

Function 3 Code (read only)

Hex. Address	Word count	Description	Unit	Place in ATyS p M Modbus Map
5106	1	Hz (Frequency Fr)	Hz	13.9.4 Load
5100	1	V L1 – L2 (Phase to phase Voltage U12)	V	13.9.4 Load
5103	1	V L1 – N (Phase 1 to neutral voltage, V1)	V	13.9.4 Load
5101	1	V L2 – L3 (Phase to phase Voltage U23)	V	13.9.4 Load
5104	1	V L2 – N (Phase 2 to neutral voltage, V2)	V	13.9.4 Load
5102	1	V L3 – L1 (Phase to phase Voltage U31)	V	13.9.4 Load
5105	1	V L3 – N (Phase 3 to neutral voltage, V3)	V	13.9.4 Load

Source Voltages

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
510D	1	1 – F (Source I: Frequency)	Hz	13.9.4 Source
5107	1	1 – V L1-L2 (Source I: Phase to phase voltage U12)	V	13.9.4 Source
510A	1	1 – V L1-LN (Source I: Phase 1 to neutral voltage V1)	V	13.9.4 Source
5108	1	1 – V L2-L3 (Source I: Phase to phase voltage U23)	V	13.9.4 Source
510B	1	1 – V L2-LN (Source I: Phase 2 to neutral voltage V2)	V	13.9.4 Source
5109	1	1 – V L3-L1 (Source I: Phase to phase voltage U31)	V	13.9.4 Source
510C	1	1 – V L3-LN (Source I: Phase 3 to neutral voltage V3)	V	13.9.4 Source
5114	1	2 – F (Source II: Frequency)	Hz	13.9.4 Source
510E	1	2 – V L1-L2 (Source II: Phase to phase voltage U12)	V	13.9.4 Source
5111	1	2 – V L1-LN (Source II: Phase 1 to neutral voltage V1)	V	13.9.4 Source
510F	1	2 – V L2-L3 (Source II: Phase to phase voltage U23)	V	13.9.4 Source
5112	1	2 – V L2-LN (Source II: Phase 1 to neutral voltage V2)	V	13.9.4 Source
5110	1	2 – V L3-L1 (Source II: Phase to phase voltage U31)	V	13.9.4 Source
5113	1	2 – V L3-LN (Source II: Phase 1-neutral voltage V3)	V	13.9.4 Source



Status – Alarms

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
		Alarm/Fault Code		
		0: None		
		1: F00 OP FCT - Operating Factor - Duty Cycle		
		2: F03 NEUTRAL - Neutral Wiring Mismatch		
		3: F11 FLT-1 - Source 1 Fault		
		4: F21 FLT-2 - Source 2 Fault		
		5: F12 ALR-1 - Source 1 Alarm		
	1	6: F22 ALR-2 - Source 2 Alarm		
500D		7: F13 ROT-1 - Priority Source 1 Phase Rotation Fault		13.9.4 Status
		8: F23 ROT-2 - Priority Source 2 Phase Rotation Fault		
		9: F14 CAP-1 - Source 1 Return to Zero Capacitor Fault		
		10: F24 CAP-2 - Source 1 Return to Zero Capacitor Fault		
		11: F15 PWR-1 - Source 1 Insufficient Switchover Power		
		12: F25 PWR-2 - Source 1 Insufficient Switchover Power		
		13: F16 POS-1 - Position I Fault		
		14: F26 POS-2 - Position II Fault		
		15: F06 POS-0 - Position 0 Fault		
		Fault summary (Fault signal)		
500C	1	0: None		13.9.4 Status
		1: Alarm		
		2: Fault		
		Last Switch over cause (Cause of last switchover)		
		0: None		
		1: Manual		
		2: Under voltage source 1		
		3: Under voltage source 2		
		4: Over voltage source 1		
5005		5: Over voltage source 2		
500E	1	6: Under Frequency source 1		13.9.4 Status
		7: Under Frequency source 2		
		8: Over Frequency source 1		
		9: Over Frequency source 2		
		10: Unbalance Source 1		
		11: Unbalance Source 2		
		12: Rotation Source 1		
		13: Rotation Source 2		



Status – Network Configuration

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
		2ND TRIP		
565E	1	0: NO		13.9.6. Network Configuration
		1: YES		
		Application Type		
5655		0: M – M (Network – Network)		13.9.6. Network Configuration
		1: M – G (Network – Genset)		
		Genset Starting Relay		
5657	1	0: NO		13.9.6. Network Configuration
		1: NC		
		MOD AUT		
565F	1	0: No		13.9.6. Network Configuration
		1: Yes		
		Neutral Placement		
5651	1	0: Auto		13.9.6 Network Configuration
5051	1	1: On the Left		15.5.6. Network Conliguration
		2: On the Right		
		Phase Direction		
5652	1	0: Undefined		13.9.6 Network Configuration
5052	1	1: ABC		15.5.6. Network Conliguration
		2: ACB		
		PRIO EON		
565A	1	0: No		13.9.6. Network Configuration
		1: Yes		
		PRIO NET		
5658	1	0: None		13.9.6 Network Configuration
5050	1	1: Source 1		15.5.6. Network Conliguration
		2: Source 2		
		PRIO TON		
5659	1	0: No		13.9.6. Network Configuration
		1: Yes		
		Rated Frequency		
5654	1	0: 50Hz		13.9.6. Network Configuration
		1: 60Hz		
5653	1	Rated Voltage	V	13.9.6. Network Configuration
		RETRANS		
565B	1	0: No		13.9.6. Network Configuration
		1: Yes		
		RETURN O		
565C	1	0: No		13.9.6. Network Configuration
		1: Yes		
		Type of network		
		0: 4NBL (230/400V)		
		1: 1BL (230/400V)		
		2: 41NBL (230/400V)		
		3: 42NBL (230/400V)		
5650	1	4: 3NBL (230/400V)		13.9.6. Network Configuration
		5: 4NBL (127/230V)		
		6: 3NBL (127/230V)		
		7: 2NBL (127/230V)		
		8: 2BL (127/230V)		
		9: 42NBL (127/230V)		



Status – Sources

Function 3 Code (read only)

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
5001	1	Operating Mode 0x0000: Manual 0x0010: Auto 0x0020: Control 0x0040: Inhibit		13.9.4 Status
5005	1	Priority 0: Network 1: Source 1 2: Source 2		13.9.4 Status
5006	1	Source 1 State 0: No Source 1: Out of Threshold 2: Available		13.9.4 Status
5004	1	Source 2 Start Generator relay State 0: Not Active 1: Active		13.9.4 Status
5007	1	Source 2 State 0: No Source 1: Out of Threshold 2: Available		13.9.4 Status
5002	1	Switch Position 0: Unknown 1: Position 0 2: Position I 3: Position II		13.9.4 Status

Source – Tests

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
5008	1	Test in Progress 0x0000: None 0x0001: TOF 0x0002: EOF 0x0004: TON 0x0008: EON		13.9.4 Status



Status – Time Delay Configuration

Function 3 Code (read only)

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
550F	1	External Order on Load Duration (E2T) 0: Limited 1: Unlimited		13.9.6. Time delay configuration
550D	1	Test Off Load Duration Timer (TFT) 0: Limited 1: Unlimited		13.9.6. Time delay configuration
550B	1	Test On Load Duration Timer (TOT) 0: Limited 1: Unlimited		13.9.6. Time delay configuration

Threshold Configurations

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
555E	1	S1 Lower Frequency		13.9.6. Threshold configuration
555F	1	S1 Lower Frequency Hysteresis		13.9.6. Threshold configuration
5552	1	S1 Lower Voltage		13.9.6. Threshold configuration
5553	1	S1 Lower Voltage Hysteresis		13.9.6. Threshold configuration
5558	1	S1 Unbalanced Phase		13.9.6. Threshold configuration
5559	1	S1 Unbalanced Phase Hysteresis		13.9.6. Threshold configuration
555C	1	S1 Upper Frequency		13.9.6. Threshold configuration
555D	1	S1 Upper Frequency Hysteresis		13.9.6. Threshold configuration
5550	1	S1 Upper Voltage		13.9.6. Threshold configuration
5551	1	S1 Upper Voltage Hysteresis		13.9.6. Threshold configuration
5562	1	S2 Lower Frequency		13.9.6. Threshold configuration
5563	1	S2 Lower Frequency Hysteresis		13.9.6. Threshold configuration
5556	1	S2 Lower Voltage		13.9.6. Threshold configuration
5557	1	S2 Lower Voltage Hysteresis		13.9.6. Threshold configuration
555A	1	S2 Unbalanced Phase		13.9.6. Threshold configuration
555B	1	S2 Unbalanced Phase Hysteresis		13.9.6. Threshold configuration
5560	1	S2 Upper Frequency		13.9.6. Threshold configuration
5561	1	S2 Upper Frequency Hysteresis		13.9.6. Threshold configuration
5555	1	S2 Upper Voltage Hysteresis		13.9.6. Threshold configuration
5554	1	S2 Upper Voltage		13.9.6. Threshold configuration



Time Delay Configuration Values

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
5514	1	External Order Off Load Timer (End) - E7T		13.9.6. Time delay Configuration
5513	1	External Order Off Load Timer (Start) - E5T		13.9.6. Time delay Configuration
5512	1	External Order On Load Timer (Duration) - E2T		13.9.6. Time delay Configuration
5515	1	External Order On Load Timer (Duration) - E6T		13.9.6. Time delay Configuration
5511	1	External Order On Load Timer (End) - E3T		13.9.6. Time delay Configuration
5510	1	External Order On Load Timer (Start) - E1T		13.9.6. Time delay Configuration
5516	1	Load Shedding duration (LST)		13.9.6. Time delay Configuration
5500	1	S1 Loss - SFT Failure Timer (1FT)		13.9.6. Time delay Configuration
5503	1	S1 Return to 0 (10T)		13.9.6. Time delay Configuration
5501	1	S1 SAT Return Time (1RT)		13.9.6. Time delay Configuration
5507	1	S2 LAT Cooldown Timer (2CT)		13.9.6. Time delay Configuration
5505	1	S2 loss - SFT Failure Timer (2FT)		13.9.6. Time delay Configuration
5508	1	S2 Return to 0 (2OT)		13.9.6. Time delay Configuration
5509	1	S2 Starting Timeout (2ST)		13.9.6. Time delay Configuration
5506	1	S2 2RT Or 2AT (Source II return: 2RT (App M-M) or Source II Stabilisation: 2AT (App M-G))		13.9.6. Time delay Configuration
550E	1	Test Off Load duration timer (TFT)		13.9.6. Time delay Configuration
550C	1	Test On Load Duration (TOT)		13.9.6. Time delay Configuration
550A	1	Time Without Power 0DT		13.9.6. Time delay Configuration



Timer Delay Values

Hex. Address	Word count	Description	Unit	Place on ATyS p M Modbus Map
5216	1	External Order Off Load Timer (Duration) - E7T		13.9.4. Time Delays
5215	1	External Order Off Load Timer (Start) - E5T		13.9.4. Time Delays
5214	1	External Order On Load Timer (Duration) - E2T		13.9.4. Time Delays
5217	1	External Order On Load Timer (Duration) - E6T		13.9.4. Time Delays
5213	1	External Order On Load Timer (End) - E3T		13.9.4. Time Delays
5212	1	External Order On Load Timer (Start) - E1T		13.9.4. Time Delays
520F	1	Load Shedding duration (LST)		13.9.4. Time Delays
520C	1	Programmed genset started following its last stop - EET		13.9.4. Time Delays
5200	1	S1 Loss - SFT Failure Timer (1FT)		13.9.4. Time Delays
5203	1	S1 Return to 0 (10T)		13.9.4. Time Delays
5201	1	S1 SAT Return Time (1RT)		13.9.4. Time Delays
5208	1	S2 2RT Or 2AT (Source II return: 2RT (Appli M-M) or Source II Stabilisation: 2AT (Appli M-G))		13.9.4. Time Delays
520B	1	S2 FST Start Timeout Timer (2ST)		13.9.4. Time Delays
5209	1	S2 LAT Cooldown Timer (2CT)		13.9.4. Time Delays
5207	1	S2 loss - SFT Failure Timer (2FT)		13.9.4. Time Delays
520A	1	S2 Return to 0 (2OT)		13.9.4. Time Delays
5210	1	Test Off Load Duration (TFT)		13.9.4. Time Delays
5211	1	Test On Load Duration (TOT)		13.9.4. Time Delays
520E	1	Time Without Power 0DT		13.9.4. Time Delays