# OPC Server FibroLaser III

# Installation and Configuration Manual

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# 1. Glossary

Acronym	Description
OPC	OLE for Process Control
OLE	Object Linking and Embedding
GUI	Graphic User Interface
SCADA	Supervisory Control And Data Acquisition
FibroLaser III	Siemens Linear Heat Detection systems
OTS30xx	Siemens Linear Heat Detection Controllers

# 2. Introduction

This is a User Manual for the OPC Server FibroLaser III. The Server communicates with FibroLaser III controllers over Ethernet and supports data exchange with Client's via Microsoft's Object Linking and Embedding (OLE) for Process Control (OPC).

S4S's OPC Server is a software package that operates as an OPC driver of Siemens Management stations as MM8000, Desigo CC<sup>™</sup> and Cerberus<sup>™</sup> DMS. The OPC Server meets the latest standard of OPC DA2.0 that allows connections to various kinds of devices and host OPC machines.

The manual is organized to provide an overview of OPC technology, detailed information on the configuration environment and a complete list of OPC Tag's provided by the OPC Server.

# 3. About the OPC Server FibroLaser III

The OPC Server FibroLaser III is based on OPC Data Access, known as 'DA', which provides real-time data from FibroLaser III controllers to management stations with OPC client drivers as MM8000, DesigoCC<sup>™</sup> and Cerberus<sup>™</sup> DM.

The server communicates with OTS 30xx via the LON protocol over TCP-IP

Protocol has been designed to be compatible with the previous versions of the OTS public code protocols.

The OPC Server reads and writes data to and from FibroLaser III controllers via Ethernet.

The Server has a graphical user interface (GUI) configuration environment with an "Explorer" look and feel. The configuration environment allows the Server to be configured with information such as controller IP addresses and available global variables so that the Server can communicate with these systems on behalf of Clients.

Application Name	: OPC-FibroLaserIII.exe	
OPC NAME	: "S4S.OPC-FibroLaser III"	(Can be configured in xml file)
OPC DESCRIPTION	: "OPC Server – FibroLaser III"	(Can be configured in xml file)
OPC GUID	: {4DA870F2-A36A-46FF-BD36-A21511B9	FF80}

# 4. System Requirements

The OPC Server FibroLaser III application runs on any hardware which supports Windows Server 2003/2008/2012, Windows XP, Windows 7 or Windows 8 with DCOM, Visual C++ 2010 Redistributable Packages and .NET Framework 4 Installed.

The system must have 10 Mb of free disk space to install the program and 1 Gb of free memory is required to load and run the application. All systems information is stored in the server's disk. For configuration purpose a monitor connected to the computer is required. The OPC server is a 32 bit application which runs on both 32/64 bit operating systems.

Hardware characteristics recommended

- CPU i5 high-end (for example INTEL Core i5 4690K) or i7 mid-range (for example Intel Core i7-4770K)
- RAM : 8GB

#### Checks on the network

Since the Server communicates with the FibroLaser OTS 30XX over TCP-IP, an Ethernet network must be in place. The network itself should be fully tested and be known to operate before attaching the controllers and the Server computers. Contact your system administrator for assistance or consult instructional documentation and manuals to setting up the network. It is beyond the scope of this Users Manual to discuss networking topics in any detail.

Once the network is in place and the Server computers and controllers are attached, check connectivity using available network testing tools and programs such as ping command.

**Note:** When the OTS 30XX configuration is modified, a re-start of the LON Protocol is carried out and a disconnection on communication is detected.

# 5. Installation guide

Before installation of the OPC server, make sure it is installed the Visual C++ 2010 Redistributable Packages, if not please let install it on your computer.

The OPC Server FibroLaser III is provided with own specific setup. The setup includes all the dependencies (ex. *WtOPCSvr.DLL* - OPC server library) in order to ensure the proper functioning of the application.

- S4S\_OPC\_Library.dll
- S4SGenCodeInfo.dll
- S4SGenCodeInfoLibrary.dll
- ObjectListView.dll
- WtOPCSvr.dll
- SysInfo.dll

Two security issues require attention:

- Installation needs Administrator rights;
- Windows Firewall must be configured;
- DCOM security settings must be configured. This guide describes how to make the necessary settings.

### 5.1 Registration of the OPC Server



- To register the Server, you must click 'Register' in the menu 'Server'.
- To unregister the OPC Server, you must click 'UnRegister' in the menu 'Server'.

### 5.2 Authentication and Permissions

After OPC Server registration the COM security has to be enabled, so OPC Client can automatically call the OPC Server.

Below are showed all steps needed to enable the security COM, using 'DCOMCNFG1':

- 1. Verify that the DCOM security registration was executed successfully;
- 2. Run DCOMCNFG (Only the administrator can run *'Dcomcnfg.exe'*). To use *'RUN Command Windows*' or *'Command Prompt'*, to open DCOMCNFG program;

Run	?×
	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	dcomenfg
	OK Cancel <u>B</u> rowse

Image 2 DCOMCNFG - Run

- 3. Locate the My Computer item by expanding the following nodes: Component Services > Computers;
- 4. Right-click My Computer and select Properties.



Image 3 Component Services Property

<sup>&</sup>lt;sup>1</sup> **Dcomcnfg.exe** provides a user interface for modifying certain settings in the registry. By using Dcomcnfg.exe, you can enable security either on a computer-wide or a process-wide basis. You can enable security for a particular computer so that when a process does not provide its own security settings, either programmatically or through registry values, the values set by Dcomcnfg.exe will be used. Or you can use Dcomcnfg.exe to enable security for a particular application only. *Note*:You must be an administrator to run Dcomcnfg.exe.

5. Go to the COM Security tab. Edit the default settings to Access Permission, hereby adding 'ANONYMOUS LOGON' and 'Everyone' and giving all access permissions to that group of users. Repeat the setup for the limit settings.

Grand	Outrus	Data & Desertion	Access Permission	0
General Detector	Uptions	CDM Security	Access Fermission	
Access Permissions You may edit who also set limits on a Launch and Activatic You may edit who activate objects. Y determine their ow	is allowed default access pplications that determine Edit Limits on Permissions is allowed by default to la 'ou may also set limits on in permissions. Edit Limits	to applications. You may their own permissions. Edit Default wunch applications or applications that Edit Default	Default Security Group or user names: ANONYMOUS LOBON Everyone SELF SYSTEM Permissions for ANONYMOUS LOGON Local Access Remote Access V	Bemove Dery

Image 4 COM Security Access Permissions

6. Now edit the default settings for Launch and Activation Permissions, hereby adding 'ANONYMOUS LOGON' and 'Everyone' and giving all access permissions to that group of users. Repeat the setup for the limit settings.

	Options	Default Properties	Launch Permission		
Default Protocols	MSDTC	COM Security	Default Security		
Access Permissions You may edit who is also set limits on ap Launch and Activation	allowed default access slications that determine Edit Limits	to applications. You may their own permissions.	Group or user names:		
You may edit who is activate objects. Yo determine their own	allowed by default to k u may also set limits on permissions.	sunch applications or applications that	Permissions for ANONYMOUS	Add	Remove Dery
	Edit Limits	Edit Default	Local Launch		
			Remote Launch Local Activation Remote Activation	III	

Image 5 COM Security Launch and Activation Permissions

The new settings will take effect when the OPC Client has been restarted. Therefore, close the Component Services (dcomcnfg program) and restart the OPC Client application.

7. Using tree view DCOMCMFG to check the all DCOM registered.



Image 6 DCOMCMFG

Select the 'Component Services' item, than 'Computers', than 'My Computer' and 'DCOM Config' item;

Find the OPC Server name registered in the DCOM list, it must be the same as configured in the xml file.

Xml file example:

<OPC\_PROTOCOL Delimiter="." **OPC\_name=**"<u>OPC-SERVER</u>" OPC\_description="OPC Server - Fibro Laser" ···>

OPC Server name is registered: "OPC-Fibro Laser", for this example the name is "OPC-SERVER".



- 8. OPC Server Configuration Permissions. Select the 'OPC-SERVER' registration then the properties (pushing the right button) and then select the 'security' tab:
  - a. Select '*Customize*' in the '*Configuration Permissions*' and then click the '*Edit*' button.

General Location Security Endpoints Identity	
Launch and Activation Permissions	
<ul> <li>Use De<u>f</u>ault</li> </ul>	
O Custo <u>m</u> ize	Edit
Access Permissions	
Use Default	
C Custo <u>m</u> ize	E <u>d</u> it
Configuration Permissions	
⊂ Use Defa <u>u</u> lt	
<ul> <li>Customize</li> </ul>	Edit
OK Can	cel <u>A</u> pply
Image 8 DCOMCNFG – Configuration Perm	nissions

- b. Select 'Add' button to add a new user and then, in the new form, select the 'Advanced' button.
- c. Click the 'Find' button to search the 'everyone' and then 'ANONYMOUS LOGON ' users.

Select Users or Groups			<u>? ×</u>
Select this object type:			
Users, Groups, or Built-in security principals			Object Types
Erom this location:			
FT_SRV_1			Locations
Common Queries			
Name: Starts with			<u>C</u> olumns
Description: Starts with			Find <u>N</u> ow
Disabled accounts			Stop
Non expiring password			
Days since last logon:			
Search res <u>u</u> lts:		OK	Cancel
Name (RDN)	In Folder		<b></b>
Administrators	FT_SRV_1	¥.	
ANDNYMOUS LOGON		l	
Backup Operators	FT SBV 1		-

Image 9 DCOMCNFG – Find User

#### d. Add 'everyone' and 'ANONYMOUS LOGON ' user;

Select Users or Groups		? ×
Select this object type:		
Users, Groups, or Built-in security principals		Object Types
From this location:		
FT_SRV_1		Locations
Enter the object names to select ( <u>examples</u> ):		
ANONYMOUS LOGON; Everyone		<u>C</u> heck Names
		1
Advanced	OK	Cancel

Image 10 DCOMCNFG - Add users

- e. Provide all permission to added users.
- 9. Set OPC Server identity. Select the 'identity' tab:

Set 'This user' and insert User and Password used to access MM8000.

General Location Securi	ty Endpoints Identity	
Which user account do yo	u want to use to run this applica	ition?
C The interactive user.		
C The launching user.		
<ul> <li>This <u>u</u>ser.</li> </ul>	DMC0000	1
Us <u>e</u> r:		Browse
<u>P</u> assword:	•••••	
Confirm password:	•••••	
C The system account (s	ervices only).	
	OK Cancel	Apply

Image 11 DCOMCNFG – Identity

**Note:** The demo version runs only with Launching or Interactive User. A different user from Launching or Interactive can be used ONLY if the OPC-Server runs with a registered PAK.

### 5.3 Licensing

To run the OPC Server without any time restriction a regularly software license has to be purchased from S4S.

A software license defines the maximum configuration managed by the OPC Server in terms of:

- N° of FibroLaser III controllers (OTS30xx)
- N° of channels per OTS30xx (Optic fibers)
- Length of Optic Fiber (1,2,4,6,10 Km) per OTS30xx

Without the software license the OPC Server FibroLaser III runs in demo mode with full functionality for two hours. The demo mode runs only with Launching or Interactive User (see OPC Server identity 9).

### 5.3.1 How to obtain a license

A software license must be obtained from S4S and the request has to be done from the computer where is installed the OPC Server. From the its User Interface selecting "?" then "Information about OPC Server FibroLaser III" then "View license" then "Product activation".

In the 'Product Activation' the following fields have to be filled :

- Customer installation data
  - o User name,
  - Organization,
  - o Email,
- OTS 30XX configuration in terms of: numbers of FibroLaser III controllers, numbers of channels for controller and fiber length per channel;
- Code generation (via the 'Generate new user code' button);
- Save the code and directly send it to 'orders@s4s.it ' or send it via 'Send' button if it is configured a mail box on the computer.

A PAK (Program Authorization Key) code will be generated for that specific configuration and for the PC from which has been requested the software license.

### 5.3.2 Software license activation

To activate your license you must access to the 'Product Activation' dialog and through the 'Load New License' button you load the license file released by S4S.

A dialog will appear for feedback at the end of loading to indicate the outcome of activation.

# 6. System Configuration

The purpose of this section is to provide the necessary information for configuring the FibroLaser III controller and the OPC Server.

### 6.2.1 FibroLaser IIII controller (OTS30XX)

To enable the communication with the OPC-Server, the OTS30xx has to be configured setting connection parameters and enabling the LON protocol.

The following screen shows how to configure the OTS30XX via Fibro Manager windows application.



Image 12 - FibroLaser III Communication Settings

In the **Network Settings** section it is possible to set the OTS30XX IP address. This IP address will be used by the OPC Server configuration tool to connect the FibroLaser III controller

	3286		
	3200		
TCP/IP Properties	DNS/NTP Firewall		
Standard Gateway	192 - 168 - 88 - 1		
Primary Ethernet	Expert Settings		
Get "DNS of Get "NTP of Manual IP-add IP-Address	configuration" from DHCP configuration" from DHCP ress		
Subnet Mask	255 255 255 0		
Matrice	Automatic	U.	

Image 13 FibroLaser III Network Settings

In the **LON Protocol** section, to enable the LON Protocol, select the check-box "Use TCP" and then set the communication Port.

The value of the Port will be set in the OPC Server to connect the OTS30xx.

In the **transmitted data** section is possible to define which data type the OTS30XX has to be transmitted: Notices, Alarms, Alarm locations, Zone Minimum temperature, Zone Maximum temperature, Zone Mean temperature, Temperature data and backscattering data.

For MM8000 (Danger Management System) is sufficient to enable the following data: Notices, Alarms and Alarm locations, for system as Desigo CC<sup>™</sup>, Cerberus<sup>™</sup> DMS, WinCC and SCADA, can be enabled the following data : Notices, Alarms, Alarm locations, Zone Minimum temperature, Zone Maximum temperature, Zone Mean temperature, Temperature data

#### Transmitted data setting for MM8000 :

		LON	Protocol - 3286		×
?	3286				
L.	ON Protocol Settings				
	Set the LON ID of the controller Choose the protocol version and Attention: Protocol versions othe	and select the T specify the dat er than OTS3 lim	CP and/or RS232 ports. a to be sent. it the function of the controller.		
	LON ID	2	LON Protocol Version	OTS3	~
	Send Data to FibroVis				
	✓ Use TCP		Use RS232		
	Port	5000		19 200 Baud	~
	Transmitted Data				
	3286-LON:2 (OTS3) [T     V     Alarms     Alarms     Zone minimum t     Zone maximum     Emperature da     Backscattering	CP:5000] emperature perature temperature sta data			
				Cancel	ОК
	T 44 TH T	LOND	. 1/11	C 16160000	

Image 14 FibroLaser LON Protocol Transmitted data setting for MM8000

Transmitted data setting for DesigoCC, Desigo Insight, SCADA :

LON Protocol - 3286								
3286								
LON Protocol Settings								
Set the LON ID of the controller and select the TCP and/or RS232 ports. Choose the protocol version and specify the data to be sent. Attention: Protocol versions other than OTS3 limit the function of the controller.								
LON ID	2	LON Pro	tocol Version	OTS3	~			
Send Data to FibroVis		Use	RS232					
Port	5000	Baud:		19 200 Baud	~			
Transmitted Data								
3286-LON:2 (OTS3) [TO     V III Notices     Alarms     Alarm locations     Zone minimum te     Zone maximum te     Zone maximum te     Zone maximum te     Alarm locations     IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	P:5000] mperature erature emperature a ata							
				Cancel	ОК			

#### Image 15 FibroLaser LON Protocol Transmitted data setting for DesigoCC

### 6.2.2 OPC Server

After a successful installation, the OPC Server has to be configured in order to communicate with the OTS 30xx and acquire data from it.

The OPC Server FibroLaser III configuration tool consists of two sections: Settings and Subsystems.

- SETTINGS: Is the section where to define the OPC Server general parameters;
- **SUBSYSTEMS**: Is the section where to configure the subsystems (FibroLaser III controllers) that the OPC Server has to connect.

#### SETTINGS

The *SETTINGS* section allows configuring the OPC Server name and description and the main operating parameters:

<b>S4</b> E	Solut	Systems
tings Subsystem		
PC SERVER		
OPC Name:	S4S.OPC-FibroLase	au
OPC Description:	S4S OPC Server - Fibro	Laser III
	🗶 U	n-Register
Operating Parame	ters	
OPC Quality behavior	Enable -	System Status Update (s): 2
Level Log Detail	(	Number Data Mary Ja
Level Log Letai.	Low	Number Netry Mtg: 5
Default Value TAG:	-1	
Path Company Image:	Default	Coad Defa
Alarm Prealarm behavior:	FibroLaserIII -	Ack Reset [FibroLaserIII +]
Delimiter	Export CSV file: ;	Export Full CSV file

#### Image 16 OPC Server – SETTINGS

#### **OPC** Server

After entering the OPC Server name and description you must register the application with the command "Register". In case you want to change the name and description you must first unregister it then register it again with the new name.

#### **Operating Parameters**

- OPC Quality behavior Enables or disables the management of the quality property in accordance with the standard OPC. Default is : Enabled
- *System Status Update (s):* Polling delay in seconds for updating the OTS 30xx status. Range Value: 1-3600 [s] Default value: 3 [s].

• Level Log Detail :

Defines the level of detail of OPC LOGs presented on the screen. Three levels are supported : LOW, MEDIUM and HIGH

- LOW [Default value] Presents the system diagnostics and commands received from an OPC client .
- MEDIUM Presents all OPC transactions (change of status, commands, diagnostics).
- HIGH Presents all OPC transactions (change of status, commands, diagnostics) with the native messages sent by the OTS. \). The detail level is verbose and can slow down the application. Normally used only for Debug.

All logs are saved on a File.txt (C:\OPC- FibroLaser \LOG.

• Number Retry Msg

Number of polling messages sent to the OTS30xx, without any response, before to set the communication status to disconnected. Range Value: 1-50 - Default value: 5

• Default Value TAG

Default value assigned when the OPC Server does not know the real value of TAGs, for example at the start-up of the OPC. Default value is : -1.

• Path logo image :

Defines the logo to be presented on top of the application. Defaul value : S4S logo

• Alarm-Prealarm behavior :

Defines how to handle the zone alarm and prealarm OPC tags :

- FibroLaserIII : The alarm and pre-alarm value are aligned with the value sent by the FibroLaserIII, so you can have both alarm and pre-alarm active
- Alarm-Prealarm : In this case when a zone alarm tag is set to a value active the pre-alarm tag of the same zone is set to a value no-active.
   Default value: FibroLaserIII
- Ack-Reset behavior :

Defines how to handle the event status of an OPC tag value :

- FibroLaserIII : The OPC tag value takes the value sent by the FibroLaserIII (0=no active, 1 = active).
- Ack-Reset : The OPC tag value is set in accordance to the Ack and Reset commands sent to the OTS. Es. 0 = event not-active, 1= event active, 2=event silenced (Ack command sent) and ready to be reset. After the command reset the value return to the value = 0.
   Default value: FibroLaserIII
- Delimiter Export CSV file : Defines the delimiter character used in the CSV file. Default value: ;

#### • Export full CSV file :

Whether NOT checked the CSV export file contains the following data;

Full Tag name	Tag description text	OPC Class
SUBSYSTEM_1.FIBRO_CHANNEL_1.Connection	Connection	1
SUBSYSTEM_1.FIBRO_CHANNEL_1.FibreBreak	FibreBreak	5
SUBSYSTEM_1.FIBRO_CHANNEL_1.Alarm	Alarm	2
SUBSYSTEM_1.FIBRO_CHANNEL_1.FibreAlarmPositions	FibreAlarmPositions	8
SUBSYSTEM_1.FIBRO_CHANNEL_1.FireMagnitude	FireMagnitude	0
SUBSYSTEM_1.FIBRO_CHANNEL_1.FireDirection	FireDirection	0
SUBSYSTEM_1.FIBRO_CHANNEL_1.ConfigurationAligned	ConfigurationAligned	7
SUBSYSTEM_1.FIBRO_CHANNEL_1.Command	Command	0
SUBSYSTEM_1.FIBRO_CHANNEL_1.ZONE_UKNOWN.Name	Name	0
SUBSYSTEM_1.FIBRO_CHANNEL_1.ZONE_UKNOWN.Alarm	Alarm	2
SUBSYSTEM_1.FIBRO_CHANNEL_1.ZONE_UKNOWN.Prealarm	Prealarm	3
SUBSYSTEM_1.FIBRO_CHANNEL_1.ZONE_UKNOWN.Fault	Fault	4

#### Whether is checked the CSV export file contains the following data (for DesigoCC);

#								
# Server Data: S	[Server name (DB element)]	[Progld]	[Description]	[Name]				
#								
# [opc_3]								
# server = ""Fibro	laserIII_OPC_Server"" ""4DA870F2-A	36A-46FF-BD36-A21511	B9FF80""					
#								
S	FibroLaserIII	S4S.OPC-FibroLaserIII	S4S OPC Ser	FibroLaserIII_OPC_Serv	er			
#								
# Groups Data: G	[Group name (DB element)]	[Description]	[Name]					
#								
G	Zones	Zones	Zones					
#								
# Tag Data: T	[Tag name]	[Type]	[Direction]	[PVSS DP name]	[PVSS DPT name]	[PVSS DPE n	[Description]	[Name]
#								
т	SETTINGS.System_status_update[s	INT32	10	System_status_update[	GMS_OPC_MultiStateInput	System_stat	System_statu	us_update[s]
т	SETTINGS.Date_XML_Upload	STRING	ю	Date_XML_Upload	GMS_OPC_MultiStateInput	Date_XML_U	Date_XML_U	pload
т	SETTINGS.License_State	INT16	10	License_State	GMS_OPC_MultiStateInput	License_Sta	License_Stat	e
т	SUBSYSTEM_1.Configured	INT16	ю	Configured	GMS_OPC_MultiStateInput	Configured	Configured	
т	SUBSYSTEM_1.Description	STRING	10	D	GMS_OPC_MultiStateInput	ID	ID	
т	SUBSYSTEM_1.PortState	INT16	ю	PortState	GMS_OPC_MultiStateInput	PortState	PortState	
т	SUBSYSTEM_1.ConnectionState	INT16	ю	Connection State	GMS_OPC_MultiStateInput	Connection 5	Connection S	tate
т	SUBSYSTEM_1.SoftwareVersion	STRING	ю	SoftwareVersion	GMS_OPC_MultiStateInput	SoftwareVe	SoftwareVer	rsion
т	SUBSYSTEM_1.ControllerAddress	INT16	ю	ControllerAddress	GMS_OPC_MultiStateInput	ControllerAd	ControllerAdd	dress
т	SUBSYSTEM_1.MeasurementState	INT16	ю	MeasurementState	GMS_OPC_MultiStateInput	Measuremen	Measurement	tState
т	SUBSYSTEM_1.FibreBreak	INT16	ю	FibreBreak	GMS_OPC_MultiStateInput	FibreBreak	FibreBreak	
т	SUBSYSTEM_1.Output.Output_1	INT16	ю	Output_1	GMS_OPC_MultiStateInput	Output_1	Output_1	
Т	SUBSYSTEM_1.Output.Output_2	INT16	ю	Output_2	GMS_OPC_MultiStateInput	Output_2	Output_2	
т	SUBSYSTEM_1.Output.Output_3	INT16	ю	Output_3	GMS_OPC_MultiStateInput	Output_3	Output_3	
т	SUBSYSTEM_1.Output.Output_4	INT16	ю	Output_4	GMS_OPC_MultiStateInput	Output_4	Output_4	

#### SUBSYSTEM

The **SUBSYSTEM** section allows to define the number and properties of the subsystems (OTS 30xx) to be connected to the OPC Server.



The "Add New" button is used to add new subsystem while the button "Remove" remove it.

The arrow buttons allow selecting the subsystem to configure. The number on the left represents the subsystem to be configured while the number on the right represents the maximum number of subsystems defined with the "Add" and "Remove" buttons.

For each subsystem (OTS) you must fill out the section "connection" and the section "Zone"

#### Connection

The connection section allows configuring information regarding the OTS30xx communication parameters

2	Configuration Parameters
545	Solutions and Innovative Systems
Subsystem	
Connection Zone	
	OTS3
Description:	EXAMPLE
TAG Name:	SUBSYSTEM_1
Ethernet Properties	◯ Serial Interface
IP Address:	192.128.88.213
Port:	5000
😕 Fibro Ch	LON ID: 2 🖨 Nannels: 2 🗢 🦻 Outputs: 10 🜩 Imperature Data 🖬 Inputs: 4 🜩
	Download 🔀 Close

Image 17 Configuration - SUBSYSTEM Connection

• Description

Is the description of the subsystem (OTS). At the sturt-up the OPC Server creates by default one subsystem which description is set to "EXAMPLE". The description can be freely modified.

• TAG Name

The TAG name is used to identify the subsystem OPC TAG. The default value is 'SUBSYSTEM\_(ID).

- Ethernet
- *IP Address* IP address of the OTS30xx to be connected. The default is 127.0.0.1 (localhost).
- Port

Port number of the OTS30xx to be connected. The default is 1234.

Ethemat Properties	◯ Serial Interface
Enternet Tropentes	
IP Address:	127.0.0.1
Port:	5000

- Serial Interface
- Port Name
   Port Name of the OTS30xx to be connected. The default is COM1;
- Baud Rate Baud Rate of the OTS30xx to be connected. The default is 19200;
- Data Bits Data Bits of the OTS30xx to be connected. The default is 8;
- DTR Enable DTR Enable of the OTS30xx to be connected. The default is true;
- *Flow* Flow of the OTS30xx to be connected. The default is None;
- Parity
   Prity of the OTS30xx to be connected. The default is None;

*Stop Bits* Stop Bits of the OTS30xx to be connected. The default is One;

	Ser	ial Interface	O Ethernet			
Serial Interface P	roperties					
Port Name:	COM1	~	DTR Enable:	true	~	
			Flow:	None	~	
Baud Rate:	19200	¥	Parity:	None		¥
Data Bits:	8	~	Stop Bits:	One		~

• LON ID

The LON addresses are used to identify the OTS controllers in a network structure. Note that each LON address MUST be unique in each network segment. Range value: 1-255 (LON address 1, which has been used to identify Charon3 is not used for OTS3/LHD3 system).

Default value: 2

• Fibro Channels

Number of the OTS30xx Fibro Channels configured by the Fibro Manager. Range value : 1-48

Deafult value : 1

Outputs

Number of Outputs configured in the OTS30xx by the Fibro Manager. Range value : 0-112.

Default value : 10.

• Inputs

Number of Inputs configured in the OTS30xx by the Fibro Manager. Range value: 0-112.

Default value: 4.

• Temperature data

Whether checked enables the reading of temperature data transmitted by the OTS30xx. Temperature date can be visualized in a chart that can be activated by the User Interface menu.



#### Zones

SOB	SYSTEM	<b>4</b> 1 /	1	-	Add New Rer	nove
onn	ection Zone	]				
701		N				
201						
Fibre Length: 1000,00 m 10						
	Generate 2	Zones			Length of zones 100,0	m
LIST	T OF GENERAT	ED ZONES				
LIS	T OF GENERAT Fibro Channel	ED ZONES Zone Index	Zone Name	Zone Start	Zone End	-
LIST	T OF GENERAT Fibro Channel 1	ED ZONES Zone Index 1	Zone Name Zone 1	Zone Start 0,00	Zone End	
LIST	T OF GENERAT Fibro Channel 1 1	Zone Index 1 2	Zone Name Zone 1 Zone 2	Zone Start 0,00 100,00	Zone End 100,00 200,00	•
LIS <sup>*</sup>	T OF GENERAT Fibro Channel 1 1	Zone Index 1 2 3	Zone Name Zone 1 Zone 2 Zone 3	Zone Start 0,00 100,00 200,00	Zone End 100,00 200,00 300,00	m >
LIS <sup>™</sup>	T OF GENERAT Fibro Channel 1 1 1 1	Zone Index 1 2 3 4	Zone Name Zone 1 Zone 2 Zone 3 Zone 4	Zone Start 0,00 100,00 200,00 300,00	Zone End 100,00 200,00 300,00 400,00	- III
LIS <sup>™</sup>	T OF GENERAT Fibro Channel 1 1 1 1 1 1	Zone Index 2 2 3 4 5	Zone Name Zone 1 Zone 2 Zone 3 Zone 4 Zone 5	Zone Start 0,00 100,00 200,00 300,00 400,00	Zone End 100,00 200,00 300,00 400,00 500,00	
► LIST	T OF GENERAT Fibro Channel 1 1 1 1 1 1 1 1	Zone Index Zone Index 1 2 3 4 5 6	Zone Name Zone 1 Zone 2 Zone 3 Zone 4 Zone 5 Zone 6	Zone Start 0,00 100,00 200,00 300,00 400,00 500,00	Zone End 100,00 200,00 300,00 400,00 500,00 600,00	
▶	T OF GENERAT Fibro Channel 1 1 1 1 1 1 1 1 1 1	Zone Index 2 3 4 5 6 7	Zone Name Zone 1 Zone 2 Zone 3 Zone 4 Zone 5 Zone 6 Zone 7	Zone Start 0,00 100,00 200,00 300,00 400,00 500,00	Zone End 100,00 200,00 300,00 400,00 500,00 600,00 700,00	

Image 18 Configuration - SUBSYSTEM Zone

This section allows to configure the zones for each fiber connected to the OTS30xx. In the upper part of the section it's possible to select the fibro channell using the left/right arrow. Once selected the fibro channell proceed defining the associated zones.

Zones are generated automatically by the system on the basis of the following data provided by the Fibro Manager :

- Fiber length (mt) : is the length of the optic fiber cable defined by the Fibro Manager in the section : Zone configuration "effective fiber length" (see the right upper part of the screen)
- Number of zones or Length of zones : These data comes always from the Fibro Manager section "Generate Zones"

Once the zone configuration for each fibro channel is complited, select the "Download" button to make active the new configuration.

Selecting the button "Close" without carrying out the command "Download", data is lost.

# 7. OPC TAGs

The following list introduces each tags in the OPC structure with a brief description.

SPETURE         SPETURE         System_status_update[s]       System Status in seconds       Inf2       R/W       I.3600       Defailt value: 2[s]         Jone_XML_Upload       Date last upload configuration data (vml file)       String       R       I.4600       DD/MM/YYYY hhmmss         License_State       Indicates the status of the licence is installed but covers fewer tags than configured, tags uniferensed assume the default value (-100)       Int I       R       I.4       Unknown         2       Demo Version zuring Indicates the status of the licence is installed but covers fewer tags than configured, tags uniferensed assume the default value (-100)       Int IIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIIII	TAG	TAG DESCRIPTION		PROPERTY	VALUE	VALUE DESCRIPTION				
Subset         <	OPC Server FibroLaser III									
.System_status_update[s]System Status in secondsInf2R/W1.3600Default value: 2[s].Date_xXML_UploadDate last upload configuration data (cml file)StringRIDD/MM/YYYY hhmmss.License_StateIndicates the status of the license. If the license is installed but covers fewer tags than configured, tags unlerensed assume the default value:Int16IUnknown.License_StateSubsystem configured, tags unlerensed assume the default value:Int16IUnknown.ConfiguredSubsystem configured in run file. If the subsystem is configured in run file. If the subsystem is configured in run file. If the subsystem is configured in run file. If the subsystem in configured in run file. If 	SETTINGS									
Jate_XML_UploadDate last upload configuration data (xml file)StringRImage last uploadDD/MM/YYYY hhmmssJace XML_UploadIndicates the starus of the license. If the license is installed but covers fever tags than configured, tags unlicensed assume the default value (100)Image last last upload configured in value (100)Image last upload last upload covers (100)Demo Version starting (100)Subsystem Configured in xml file. If that opt tags are not updated. To configure a subsystem you need to change the description and on or let TSXMPLE?Image last last updated. To configure a subsystem you need to change the description and on or let TSXMPLE?Image last last updated. To configure a subsystem you need to change the description and on or let TSXMPLE?Image last last updated. To rout last last updated to covers rescriptionImage last last updated. To rout last last updated to covers rescriptionImage last last last updated to covers	.System_status_update[s]	System Status in seconds	Int32	R/W	1-3600	Default value: 2[s]				
License_State         Indicates the status of the license, fixed the bicover fewer tags than configured, tags unificanced assume the default value (100)         Intermediate (100)	.Date_XML_Upload	Date last upload configuration data (xml file)	String	R		DD/MM/YYYY hh:mm:ss				
J.icense_State     Indicates the status of the letense, 1r the letense is sinstalled but covers (-00)     R     0     Demo Version running       2     Demo Version Expired       1     Demo Version Expired       2     Demo Version Expired       2     Demo Version Expired       1     Demo Version Expired       2     Demo Version Expired       1     Subsystem for onfigured in xml file. If the subsystem for onfigured inxml file. If the subsystem or updated. To configure a subsystem you need to change the description and do not let "EXAMPLE"     Intrife     R     0       1     Not Configured     OTS30xx ID     Intrife     R     1     Not Configured       1     Dero State     Intrife     R     0     Open       1     OTS30xx Connection State     Intrife     R     0     Onected       1     Disconnected     OTS30xx LON Address     Intrife     R     0     Onected       1     Disconnected     OTS30xx LON Address     Intrife     R     0     Device is masuring       1     Measurement State     Intrife     R     1     Device is NOT measuring					-1	Unknown				
License_State     fewer tags than configured, tags unlicensed assume the default value (100)     Int16     R     1     Demo Version Expired       2     Demo Version Expired       3     Licensed       R     R     R       R     0     Configured       Subsystem Configured in xml file. If the subsystem is configured in pulse. The backsystem is configured on do not let 'EXAMPLE'     Int16     R     0     Configured       JD     OTS30xx Description and do not let 'EXAMPLE'     Int16     R     1-N     Not Configured       JDeno Version Zame     OTS30xx Description     String     R     0     Open       JDerof State     OTS30xx Connection State     Int16     R     1     Open       PortState     OTS30xx Software version     String     R     0     Connected       .ConnectionState     OTS30xx Software version     String     R     0     Connected       .ControllerAddress     OTS30x X Software version     String     R     0     Device is measuring       .NoFibreBreak     General Fibre Break state     Int16     R     2-255     Nore of the fibres involved in the active measurement sequence including sparse schibits a fibre break.       .NoFibreBreak     General Fibre Break state     Int16     R     0     Nore of the fibres involved in the acti		Indicates the status of the license. If the license is installed but covers			0	Demo Version starting				
unificensed assume the default value (-100)     2     Demo Version Expired       (-100)     1     1     Ictensed <b>Subsystem</b> Configured in xnl file. If the subsystem is configured implies that ope tags are not updated. To configure a subsystem you need to iter TEXAMPLI?     Int16     R     0     Configured <b>JD</b> 01S30xx ID     Int16     R     1.N     Not Configured <b>JD</b> 01S30xx Description     String     R     1     Consecution <b>JD</b> 01S30xx Connection State     Int16     R     1.N     Int16 <b>JO</b> OTS30xx Software version     String     R     0     Connected <b>JO</b> OTS30xx Software version     String     R     0     Connected <b>JO</b> OTS30xx Software version     String     R     0     Connected <b>JO</b> OTS30xx Software version     String     R     0     Device is measuring <b>JO</b> OTS30xx Software version     String     R     0     Device is insolved in the active measuring <b>JO</b> Measurement State     Int16     R     225     Int16 <b>JO</b> General Fibre Break state     Int16     R     20     Device is incolver in the active measuring <b>JO</b> General Fibre Break state     Int16	.License_State	fewer tags than configured, tags	Int16	R	1	Demo Version running				
(100)     3     Licensed       Image: Subsystem Configured in xml file. If the subsystem Configured in xml file. If the subsystem is configured in the file. The term is the xml file. If the subsystem is the xml file. If the xml file. I		unlicensed assume the default value			2	Demo Version Expired				
Image: second secon		(-100)			3	Licensed				
SUBSYSTEW         SUBSYSTEM Configured in xml file. If the subsystem is configured implies configure a subsystem you need to configure a subsystem you need to change the description and do not let "EXAMPLE"         Intel 6         R         1         R         0         Configured           .LD         OTS30xx ID         Into         R         1         Not Configured           .PortState         OTS30xx Description         String         R         1         Not Configured           .PortState         OTS30xx Description         String         R         1         Not Configured           .ConnectionState         OTS30xx Connection State         Into         R         0         Open           .ControllerAddress         OTS30xx Connection State         Into         R         0         Connected           .ControllerAddress         OTS30xx LON Address         Into         R         0         Device is measuring           .MeasurementState         OTS30xx LON Address         Into         R         0         Device is NOT measuring           .NoFibreBreak         General Fibre Break state         Into         R         0         Device is nord red red rescription are stribute a fibre break.           .NoFibreBreak         General Fibre Break state         Into         R         0         Intervi										
Subsystem Configured in xml file. If the subsystem is configured implies that ope tags are not updated. To configure a subsystem you need to change the description and do not let "EXAMPLIE"Int16R0Configured.IDOTS30xx IDInt16R1-NNot Configured.DescriptionOTS30xx DescriptionStringRPortStateTCP Port StateInt16R1Close.ConnectionStateOTS30xx Connection StateInt16R0Connected.SoftwareVersionOTS30xx S Software versionStringR0Connected.MeasurementStateOTS30xx LON AddressInt16R2-255MeasurementStatemeasurement stateInt16R0Device is measuring.NoFibreBreakGeneral Fibre Break stateInt16R0Interive active measurement sequence including spares exhibits a fibre breakNoFibreIfenOutput StateInt16R0Inactive.Input_[0-n]Input StateInt16R0Inactive.Input_IonInput StateInt16R0Inactive.Input_IonInput StateInt16R0Inactive.Input StateInt16R0Inactive.Input StateInt16R0Inactive.Input StateInt16R0Inactive.Input StateInt16R0Inactive.Input StateInput StateInt16R0	SUBSYSTEM*									
Configure a subsystem you need to change the description and do not let "EXAMPLE"Int16R1Not Configured.IDOTS30xx IDInt16R1-N.DescriptionOTS30xx DescriptionStringRPortStateTCP Port StateInt16R0Open.OnnectionStateOTS30xx Connection StateInt16R0Onected.ConnectionStateOTS30xx Connection StateInt16R2-255Omected.ControllerAddressOTS30xx LON AddressInt16R2-255Omected.MeasurementStatemeasurement stateInt16R2-255Omected.NoFibreBreakGeneral Fibre Break stateInt16R2-255Int16Device is measuring.NoFibreBreakMarci Fibre Break stateInt16R0Interview measurement sequence including sparse schibits a fibre breakNoFibreBreakOutput StateInt16R0Interview measurement sequence including sparse schibits a fibre breakDutput_[0-n]Input StateInt16R0Inactive.Input_[0-n]Input StateInt16R0Inactive.Input_[0-n]Input StateInt16R0Inactive.Input_[0-n]Input StateInt16R0Inactive		Subsystem Configured in xml file. If the subsystem is configured implies that opc tags are not updated. To configure a subsystem you need to change the description and do not let 'EXAMPLE'	Int16	D	0	Configured				
IDOTS30xx IDInt16R1-NDescriptionOTS30xx DescriptionStringRIPortStateTCP Port StateInt16R0Open.OonnectionStateOTS30xx Connection StateInt16R0Connected.ConnectionStateOTS30xx S Software versionStringR0Connected.SoftwareVersionOTS30xx S Software versionStringR20Device is measuring.MeasurementStateOTS30xx LON AddressInt16R20Device is noarring.NoFibreBreakGeneral Fibre Break stateInt16R0Interve measurement sequence including sparse exhibits a fibre breakNoFibreIreakOutput StateInt16R0Inactive.nput_[0-n]Output StateInt16R0Inactive.nput_[0-n]Input StateInt16R0Inactive	. Configured			К	1	Not Configured				
Description     OTS30xx Description     String     R     Image: Construct on State     Image: Construct on Stat	.ID	OTS30xx ID	Int16	R	1-N					
PortStateTCP Port StateInt16R0OpenInt16Int16RCloseInt16Int16R0ConnectedInt16Int16R0ConnectedInt16Int16RInt16Int16Int16Int16R2-255Int16Int16Int16Int16R2-255Int16Int16Int16Int16R2-255Int16Int16Int16Int16RInt16RInt16Int16Int16Int16RInt16RInt16Int16Int16Int16RInt16RInt16Int16Int16Int16Int16RInt16Input [0-n]Input StateInt16Int16Int16Int16Int16Input Input Inpu	.Description	OTS30xx Description	String	R						
Image: constant index ind	.PortState	TCP Port State	Int16	R	0	Open				
.ConnectionState□ H111□ H0Connected.SoftwareVersionOTS30xx S Software versionStringRIVersion.Release Code.ControllerAddressOTS30xx LON AddressInt16R2-255.MeasurementStatemeasurement stateInt16R2Device is measuring.NoFibreBreakeneral Fibre Break stateInt16R0Device is NOT measuring.NoFibreIneOutput StateInt16R0None of the fibres involved in the active measurement sequence including spares exhibits a fibre breakNoFibreIneOutput StateInt16R0Intervent sequence including spares exhibits a fibre breakNoticeInt16R0Intervent sequence including spares exhibits a fibre break.					1	Close				
SoftwareVersionOTS30xx S Software versionStringRInt16StringRVersion.Revision.Release Code.ControllerAddressOTS30xx LON AddressInt16R2-255.MeasurementStatemeasurement stateInt16R2-255.MeasurementStatemeasurement stateInt16R0Device is measuring.NoFibreBreakeneral Fibre Break stateInt16R0None of the fibres involved in the active measurement sequence including spares exhibits a fibre breakNoFibreIneBreakOutput StateInt16R0Inactive.nutput_[0-n]Input StateInt16R0Inactive.nutput_[0-n]Input StateInt16R0Inactive.nutput_[0-n]Input StateInt16R0Inactive.nutput_[0-n]Input StateInt16R0Inactive.nutput_[0-n]Input StateInt16R0Inactive.nutput StateInt16R0Inactive.nutput StateInt16R0Inactive.nutput StateInt16R0Inactive.nutput StateInt16R0Inactive.nutput StateInt16R0Inactive.nutput StateInt16R0Inactive.nutput StateInt16R0Inactive.nutput StateInt16R1Active.nutput StateInt16R<	.ConnectionState	OTS30xx Connection State	Int16	R	0	Connected				
SoftwareVersionOTS30xx S Software versionStringRVersion.Revision.Release Code.ControllerAddressOTS30xx LON AddressInt16R2-255.MeasurementStatemeasurement stateInt16R0Device is measuring.NoFibreBreak					1	Disconnected				
.ControllerAddressOTS30xx LON AddressInt16R2-255.MeasurementStatemeasurement stateInt16R0Device is measuring.NoFibreBreakInt16R0Device is NOT measuring.NoFibreBreakInt16R0.NoFibreBreakInt16R0None of the fibres involved in the active measurement sequence including spares exhibits a fibre breakNoFibreBreakInt16R0Interest involved in the active measurement sequence including spares exhibits a fibre breakNotput_[0-n]Output StateInt16R0Inactive.Input_[0-m]Input StateInt16R0Inactive.Input_[0-m]Input StateInt16R0Inactive.Input_[0-m]Input StateInt16R0Inactive	.SoftwareVersion	OTS30xx S Software version	String	R		Version.Revision.Release Code				
MeasurementStatemeasurement stateInt16R0Device is measuringImage: Image: Imag	.ControllerAddress	OTS30xx LON Address	Int16	R	2-255					
.NoFibreBreak fibre Break state Int 10 R 1 Device is NOT measuring Noe of the fibres involved in the active measurement sequence including sparse exhibits a fibre break. .NoFibreBreak fibre Break state Int 16 R 1 Device is NOT measuring .Noe of the fibres involved in the active measurement sequence including sparse exhibits a fibre break. .Output_[0-n] Output State Int 16 R 0 Inactive .Input_[0-m] Input State Int 16 R 0 Inactive 	M		Lat1(	р	0	Device is measuring				
.NoFibreBreakGeneral Fibre Break stateInt16R0None of the fibres involved in the active measurement sequence including spares exhibits a fibre breakOutput_[0-n]Output StateInt16R0Inactive measurement sequence involved in the active measurement sequence including spares exhibits a fibre breakOutput_[0-n]Output StateInt16R0Inactive.Input_[0-m]Input StateInt16R0Inactive	.measurementstate	measurement state	Intio	к	1	Device is NOT measuring				
Initial Pole break state       Initial Pole break state <thinitial break="" pole="" state<="" th="">       Initial Pol</thinitial>	.NoFibreBreak	Cancerol Eibro Paroch stato	Lat16	р	0	None of the fibres involved in the active measurement sequence including spares exhibits a fibre break.				
Output_[0-n]Output StateInt16R $0$ InactiveInput_[0-m]Input StateInt16R $0$ InactiveInput_[0-m]Input StateInt16R $0$ Inactive		General Fibre Break state	mtio	ĸ	1	There is one or more fibres involved in the active measurement sequence including spares exhibits a fibre break.				
Input_[0-m]     Input State     Int16     R     1     Active       Input_[0-m]     Input State     Int16     R     0     Inactive	.Output [0-n]	Output State	Int16	R	0	Inactive				
.Input_[0-m] Input State Int16 R 0 Inactive	[]		mtro		1	Active				
	.Input_[0-m]	Input State	Int16	R	0	Inactive				

Explosion Protection				0	Systems without explosion protection option
	Explosion protection state	Int16	R	1	Explosion protection circuit is installed
KovSwitch	Kon mitch state	Int16	D	0	Normal
.KeySwitch	Key switch state	millo	К	1	Test Mode position
				0	No system fault
				1	System fault
.SystemFault	System fault state	Int16	R/W		COMMANDS
				30	Acknowledge
				31	Reset all
				0	No alarm
				1	Alarm
.CommonAlarm	Common alarm state	Int16	R/W		COMMANDS
				30	Acknowledge
				31	Reset all
InternalDeviceTemperature	Internal device temperature in °C	Float	R		
		1 Ioat	R		If the device is not equipped with
InternalDeviceHumidity	Internal device humidity in % rel. humidity	Float	R		an internal humidity sensor, the value is always Unknown
.PowerSupplyDCinputVoltag	Power supply DC input voltage in Volt	Float	R		
ClashSupphrapised	State of controller's clock	Int16	D	0	No synchronised with NTP server
ClockSynchronised		111110	к	1	Synchronised with NTP server
.LastUpdate	Data Last Update	String	R		
					COMMANDS:
				10	Alarm Triggering Locations Request
				11	Alarms Request
				12	Software Version Request
Command	Command SUBSYSTEM	Int16	R/W	13	Attendance Check Request
			,	14	Controller Address Request
				15	Device Status Request
				16	Date And Time Request
				16 30	Date And Time Request Acknowledge
				16 30 31	Date And Time Request Acknowledge Reset all
	SUBSYSTEM*.FIBRE_	CHANN	EL [1-48	16 30 31	Date And Time Request Acknowledge Reset all
	SUBSYSTEM*.FIBRE_	CHANN	EL [1-48	16 30 31 ] 0	Date And Time Request Acknowledge Reset all Connected
.Connection	SUBSYSTEM*.FIBRE_ Connection State	CHANN Int16	<b>EL [1-48</b> R	16 30 31 0 1	Date And Time Request Acknowledge Reset all Connected Disconnected
.Connection	SUBSYSTEM*.FIBRE_	CHANN Int16	<b>EL [1-48</b> R	16 30 31 ] 0 1 0	Date And Time Request Acknowledge Reset all Connected Disconnected Normal
.Connection .NoFibreBreak	SUBSYSTEM*.FIBRE_ Connection State Fibre Break state	CHANN Int16 Int16	<b>EL [1-48</b> R R	16 30 31 ] 0 1 0 1 0 1	Date And Time Request Acknowledge Reset all Connected Disconnected Normal Fibre Break
.Connection .NoFibreBreak	SUBSYSTEM*.FIBRE_ Connection State Fibre Break state	CHANN Int16 Int16	EL [1-48 R R	16 30 31 0 1 0 1 0 1 0	Date And Time Request Acknowledge Reset all Connected Disconnected Normal Fibre Break Normal
Connection .NoFibreBreak	SUBSYSTEM*.FIBRE_ Connection State Fibre Break state	CHANN Int16 Int16	EL [1-48 R R	16 30 31 0 1 0 1 0 1 0 1 0 1	Date And Time Request Acknowledge Reset all Connected Disconnected Normal Fibre Break Normal Alarm
.Connection .NoFibreBreak	SUBSYSTEM*.FIBRE_ Connection State Fibre Break state	CHANN Int16 Int16 Int16	EL [1-48 R R R/W	16 30 31 0 1 0 1 0 1 0 1	Date And Time Request Acknowledge Reset all Connected Disconnected Normal Fibre Break Normal Alarm COMMANDS
.Connection .NoFibreBreak .Alarm	SUBSYSTEM*.FIBRE_ Connection State Fibre Break state	CHANN Int16 Int16 Int16	EL [1-48 R R R/W	16 30 31 0 1 0 1 0 1 0 1 0 1 30	Date And Time Request Acknowledge Reset all Connected Disconnected Normal Fibre Break Normal Alarm COMMANDS Acknowledge
Connection .NoFibreBreak .Alarm	SUBSYSTEM*.FIBRE_ Connection State Fibre Break state	CHANN Int16 Int16 Int16	EL [1-48 R R R/W	16 30 31 0 1 0 1 0 1 0 1 0 1 0 1 30 31	Date And Time Request Acknowledge Reset all Connected Disconnected Normal Fibre Break Normal Alarm COMMANDS Acknowledge
.Connection .NoFibreBreak .Alarm	SUBSYSTEM*.FIBRE_ Connection State Fibre Break state	CHANN Int16 Int16 Int16	EL [1-48 R R R/W	16 30 31 0 1 0 1 0 1 0 1 0 1 30 31	Date And Time Request Acknowledge Reset all Connected Disconnected Normal Fibre Break Normal Alarm COMMANDS Acknowledge Reset all List of meter positions of alarm triggering locations along the
I.Connection I.NoFibreBreak I.Alarm I.FibreAlarmPositions	SUBSYSTEM*.FIBRE_         Connection State         Fibre Break state         Alarm state         Alarm Triggering Locations	CHANN Int16 Int16 Int16 String	EL [1-48 R R R/W	16 30 31 0 1 0 1 0 1 0 1 30 31	Date And Time Request Acknowledge Reset all Connected Disconnected Disconnected Normal Fibre Break Normal Alarm COMMANDS Acknowledge Reset all List of meter positions of alarm triggering locations along the sensor fibre. In order to reduce the amount of data, adjacent triggering locations are transmitted only as

					negative number
				1	Normal
			R	2	Low
. FireMagnitude	Fire magnitude state	Int16		3	Medium
				4	High
				5	Very High
				0	Fire static
. FireDirection	Fire direction state	Int16	R	1	Fire moving towards fiber end
				2	Fire moving towards controller
					COMMANDS
				20	Avarage Zone Temperature Request
.Command	Command	Int16	R/W	21	Maximum Zone Temperatures Request
				22	Minimum Zone Temperatures Request
	SUBSYSTEM*.FIBRE_CHAI	NNEL*.2	ZONE [	)-1000]	
.Index		Int16	R	1-1000	
.Name	Zone Name	String	R		
.Start	Starting position of the zone in meters	Float	R		
.End	End position of the zone in meters	Float	R		
.TemperatureMaximum	Maximum zone temperatures in °C	Float			
.TemperatureAverage	Average zone temperature in °C	Float			
.TemperatureMinimum	Minimum zone temperature in °C	Float			
				0	Normal
	Alarm state	Int16		1	Alarm
.Alarm			R/W		COMMANDS
				30	Acknowledge
				31	Reset all
				0	Normal
				1	Prelarm
.Prealarm	Prealarm state	Int16	R/W		COMMANDS
				30	Acknowledge
				31	Reset all
				0	Normal
				1	Fault
.Fault	Fault state	Int16	R/W		COMMANDS
				30	Acknowledge
				31	Reset all
.ZoneAlarmPositions	Alarm Triggering Locations	String	R		List of meter positions of alarm triggering locations along the zone. In order to reduce the amount of data, adjacent triggering locations are transmitted only as start and end position. In that case, the end position is transmitted as a negative number

#### LICENSE NOTE:

If the license is installed but covers fewer tags than configured, tags unlicensed assume the default value (-100).

#### UNKNOWN VALUE:

If OPC-Server does not receive the state of one tag set the tag value with 'Default Value TAG' defined in Settings configuration if the type tag is a integer else if the type is a string set value with "".