

Załącznik nr 3 do SIWZ – Specyfikacja sprzętowa (zakres dostaw w gestii Zamawiającego).

Przedmiot zamówienia: „ Modernizacja systemu DCS – II etap w Zakładzie Produkcyjnym Orlen Oil w Płocku”.

Furfural and Mektol MOD300 DCS upgrade to the 800xA

Scope of Supply

1. Software, licenses, machine ID Dongles and documentation included in the Sentinel

1.1 Automation Sentinel New Subscription (Based on 5 Operator Stations)

Qty	Description	Article number
1	New Three Year Subscription One (1) Lump sum payment	3BSE047684R1
1	Type II new subscription buy-in, year 1 only	3BSE056357R1
1	Type II subscription (3-5 concurrent users) to Automation Sentinel	3BSE047687R1
5	Concurrent Users - The number of Operator Clients and Remote Operator Clients connected to the system	3BSE047691R1
1	Information Management add-on subscription to Automation Sentinel	3BSE047693R1

1.2 Advant MOD300 AdvaBuild 3.4 (WIN Based Advant SW)

Qty	Description	Article number
1	AdvaBuild Version 3.x for Windows - Base License and Control Builder License for 7 nodes	3BUR002276R061
1	TCL Builder Software License	3BUR002276R071
1	TLL Builder Software License	3BUR002276R081
1	MOD 300 Engineering Displays SW License	3BUR002528R042
1	TCL Displays SW License	3BUR002528R061
1	TLL Displays SW License	3BUR002528R071

1.3 800 xA System Standard Software Licenses

Qty	Description	Article number
1	800 xA Base System Software License Includes one Operator Workplace, one Engineering Workplace, AC800M Connectivity, Redundant Aspect Server, Plant Explorer,	3BSE044753R1

	Topology Status Viewer, Soft point Server, Scheduler, Primary History Logs (logging of signals for operator trends for up to 3 months), 10 Asset Monitors and Diagnostics	
5	1,000 tags, redundant (Enables tag access through redundant Connectivity Servers.)	3BSE031541R2
1	Audit Trail Logging activities in the system, e.g. Operator's actions, Graphics editing, Control Logic editing, etc.	3BSE031547R1
4	Operator Workplace License	3BSE031586R1
1	800xA connect for MOD 300	3BSE038336R1
1	Basic Historian Server With storage and archiving functions for: History data, events (Message Log), and production data (Production Data Log-PDL). Includes Licenses for: 500 History Logs , one Multi-Display Interface (MDI) client , one Display Builder for MDI and one Desktop Trend client and one Excel Data Access	3BSE031561R1
3	1000 History Logs (Additional History Logs)	3BSE031589R1

Remarks:

1. Above items from 1.1 to 1.3 are included in the Sentinel price.
2. Article numbers are for reference only, must be verified by vendor.

Additional to the sentinel :

1.4 Advant MOD 300 - Media and Documentation

Qty	Description	Article number
1	AdvaBuild for Windows 2000 version 3.x Product Box. Catalog no.	3BUR002269R33
1	MOD 300 Engineering Displays version 1.0 Product Box .Catalog no.	3BUR002396R10
1	USB Port Hardware Machine ID Dongle	ID Dongle

1.5 800 xA Media and Documentation

Qty	Description	Article number
1	Industrial IT 800xA Software Version 5.x, DVD Product Box	3BSE055711R52
1	RAINBOW Dongle for USB Port	3BSE034584R1
3	eDCN RTAB kits for redundant connection (replacement to existing DCN connection from AdvaBuild, ans 2 of OPC Servers)	

2 Controllers, servers and operator stations - hardware

2.1 800xA Servers and Station Hardware & Accessories

Qty	Description
1	Redundant Aspect Server including the full installation and Test of the 800 xA Software
1	Redundant Connectivity Server including the full installation and Test of the 800 xA Software. 2x RTAB (Real Time Accelerator Bard for eDCN) with e-DCN kits to be supplied with the connectivity servers.
1	Redundant Domain Server including the full installation and Test of the 800 xA Software (optionally can be combined with Aspect Servers)
1	Single Historical Recording Server including the full installation and Test of the 800 xA Historical Recording Software
5	800 xA Station Hardware for 800 xA Engineering and Operator Station , with 2 x 24" high resolution LCD, audio loudspeakers and Ethernet communication accessories and including full software installation and Test. 15 meters extenders for video, keyboard and mouse.
2	Control Network Cables and switching Accessories plus standard KVM switch, desk top monitor 21", keyboard and mouse for Servers configuration, system engineering and Maintenance work.
12	TP cable pairs for 800 xA Control Network (one black and one green)
4	800 xA Control Network switches FX/TX (preferred Hirschmann or HP, with minimum 8 x TX ports and one FX port)
2	eDCN switches TX/FX (preferred Hirschmann with minimum 6 x TX ports and one FX port)
3	TP cable pairs for eDCN (yellow and red)
15	TP cable for LAN (blue)
2	Switches TX/FX for LAN (preferred Hirschmann or HP, with minimum 8 x TX ports and one FX port)
3	Server & OS Cabinet 800 x 1000 x 2000 mm (WxDxH) with Glass door and retractable shelves as per ORLEN Standard .The cabinet will house the data servers, operator stations and accessories (switches, KVM, etc) and it will be delivered complete with full wiring and Testing.

Remarks:

1. All Server should be delivered with the disk RAID configuration with at least one hard disk drive fault tolerant.
2. eDCN cables colors are yellow (DCN-0) and red (DCN-1).
3. 800xA Control Net s are black (0) and green (1). LAN cables color is blue.
4. One KVM plus monitor, keyboard and mouse will be located at the Mektol area, second at the Furfural area.

2.2 Process Control Station - 2x (1:1) AC460 Redundant Controller Subsystem)

Qty	Description
1	AC460B02 19" Card file Unit
2	PM510V16 Processor Module 16 MByte (Redundant Configuration).
1	AdvaControl Basic Software License
1	AdvaControl Basic SW Redundant License
2	SC510 Sub module Carrier without CPU
3	CI560 TRIO Interface Sub module
1	CI532V02 Sub module MODBUS Interface, 2 channels.
2	PM510V16 Processor Module 16 MByte (Redundant Configuration).
1	AdvaControl Basic Software License
1	AdvaControl Basic SW Redundant License
2	SC510 Sub module Carrier without CPU
2	CI560 TRIO Interface Sub module
2	CI532V02 Sub module MODBUS Interface, 2 channels.
1	SC540/CS513/CIX518 Communication Kit for Redundant e-DCN.
1	CS513/CIX518 Communication Kit for Redundant e-DCN.
2	SR511 Redundant Regulator 24V/5V
1	Redundant 19" Powertronic 24 VDC power supply.
5	eDCN TP cable pairs (yellow and red)
2	eDCN switches TX/FX

Remarks:

1. Above listed equipment will be mounted in the existing SC cabinet at the Mektol area.
2. Second redundant e-DCN kit (without carrier module SC540) will be installed At the existing AC460 (Furfural area).
3. AC460 rack will host four SR511 power supplies (two redundant pairs).
4. eDCN switches with minimum 5 TX ports and one FX port. Preferred Hirschmann.
5. eDCN cables yellow and red. Final length fill be fixed later. For calculation purposes 5 meters segments can be assumed.