



G

Monitoring & Control

Interactive Catalogue



Monitoring & Control



Layer 1 industrial
ethernet
switches
G-1



Layer 2 industrial
managed
switches
G-1



Layer 3
rack-mount
managed switches
G-2



Industrial
routers
G-2



LTE & Ethernet
gateways
G-3



Edge Gateway
with on-board
processing
G-3



Cloud-based
monitoring and
control platform
G-4

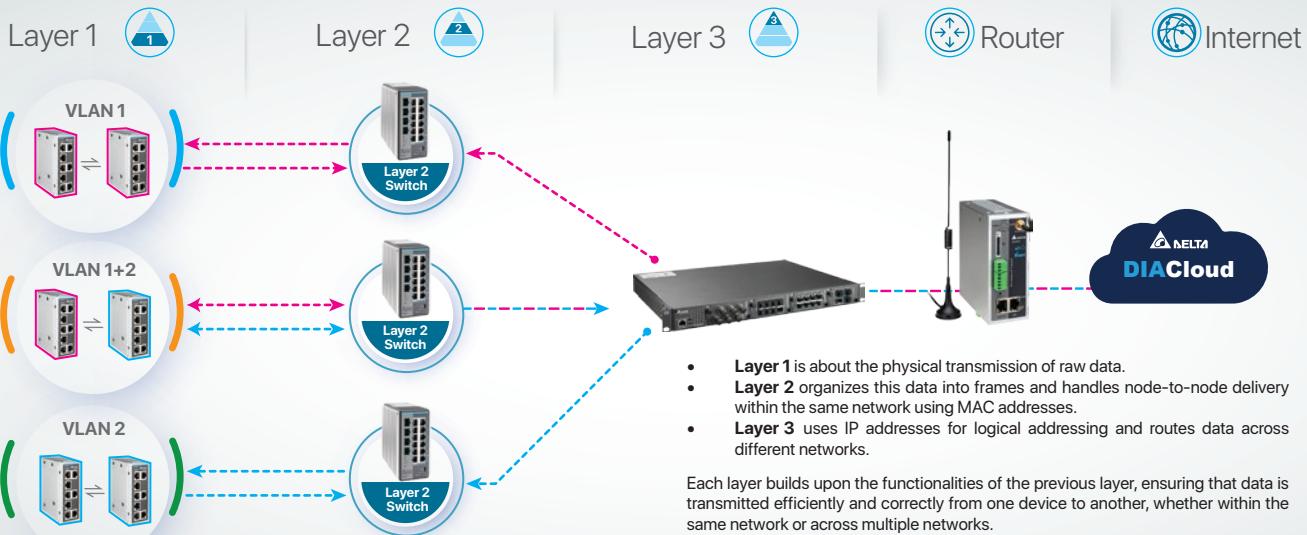


Supervisory
control and data
acquisition system
G-6



Need help navigating the interactive catalogue?
Scan the QR code for a short tutorial video.



**Rugged**
ETHERNET

EMC



FANLESS

**New****Industrial Ethernet switches**

type	no. ports	operating temperature	alarm contact	no. fibre ports	description	price
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Layer 1: Compact Ethernet switches (Unmanaged)

- Input voltage: 12 to 48 VDC
- 10 / 100 base-T(X), auto MDI / MDI-X, auto negotiation

DVS-005R00

5

-20...+70°C

-

-

DVS-008R00

8

-20...+70°C

-

-

entry level Ethernet switch

1 340.00

entry level Ethernet switch

1 910.00**Layer 1: Standard Ethernet switches (Unmanaged)**

- IEEE 802.1p Class of service / quality of service, priority protocols (**8W01 and 16W01**)
- Input voltage: 2 sets, 12 to 48 VDC redundant terminal block input

DVS-005W01

5

-40...+75°C

yes

-

DVS-008W01

8

-40...+75°C

yes

-

DVS-016W01

16

-40...+75°C

yes

-

standard Ethernet switch

2 900.00

standard Ethernet switch

4 110.00

standard Ethernet switch

6 990.00**Layer 1: Gigabit Ethernet switches (Unmanaged)**

- 10 / 100 / 1000 base-T, auto MDI/MDI-X, auto negotiation
- Input voltage: 12 to 48 VDC (2 set)

DVS-G005I00C

5

-40...+70°C

-

-

Gigabit Ethernet switch

2 140.00**Layer 1: PoE Gigabit Ethernet switches (Unmanaged)**

- 10 / 100 / 1000 base-T PoE(PSE) ports. 2 x 100 / 1000 base-SFP
- Based on IEEE 802.3at standard up to 30W per port. Backward compatible with IEEE 802.3af
- 48 to 57 VDC redundant terminal block power input

DVS-G406W01-2GF

6

-40...+70°C

yes

2 x SFP

PoE Gigabit Ethernet switch

8 220.00**Layer 2: Managed Ethernet switches**

High-end Layer 2 management, redundant self-healing ring and a wide-operating temperature.

- Supports EtherNet/IP and Modbus TCP protocols for remote management by SCADA etc.
- IEEE 802.1X, TACACS+, SSH, HTTPS and SNMP v3 for enhanced network security
- Compatible with most industrial protocols, including:
 - EtherNet/IP, Profinet, CC-LINK IE, DNP 3.0
 - RJ45 ports: 10 / 100 / 1000 base-T, auto MDI/MDI-X, auto negotiation
 - SFP ports: 100 / 1000 base-SFP

DVS-G112W02-4GF

8

-40...+75°C

yes

4 x SFP

Managed Ethernet switch

12 400.00**DVS-G116W02-4GF**

12

-40...+75°C

yes

4 x SFP

Managed Ethernet switch

16 200.00**SFP fibre transceiver**

(SFP fibre transceiver - 1 port)

type	operating temperature	interface			max. link distance
		connectors	fibre type	max. link distance	
LCP-1250A4FDRJ	-5°C...70°C	duplex LC	multi mode	550 m	1 480.00

Above ZAR prices do not include VAT. E&OE

Industrial communication devices

Communication devices							
type	no. ports	DI	DO (relay)	power input	operating temperature	description	price
Layer 3: Managed industrial rack mount Ethernet switch (100 to 240VAC / 125 to 370VDC)							
Layer 3 switches route network packets between different subnets, using hardware to determine the correct paths and ensure efficient data exchange. Delta Layer 3 switches incorporate advanced hardware and software to function effectively in harsh industrial settings.							
     <p>Excluding modules</p>  <p>New</p> <p>DVS-G900-8GE</p>	<ul style="list-style-type: none"> Enhanced network security with IEEE 802.1X, TACACS+, SSH, HTTPS and SNMP v3 STP/RSTP/MSTP for network redundancy further ensures reliability 						
DVS-G928W01	4	—	2	2	-40...+85°C	L3 managed ETH switch	55 400.00
	module slot						
	M1	M2	M3	M4		no ports	
DVS-G900-8GE	•	•	•	—	-40...+85°C	8 RJ45 ETH module	10 300.00
DVS-G900-6GM12	•	•	•	—	-40...+85°C	6 M12 ETH module	14 100.00
DVS-G900-8GF	•	•	•	—	-40...+85°C	8 SPF ETH module	9 790.00
DVS-G900-4GF	—	—	—	•	-40...+85°C	4 SFP ETH module	8 520.00
DX-series - Industrial cloud solutions							
<i>input: 24 VDC</i>							
 <p>2</p> <p>DVS-G900-6GM12</p>  <p>3</p> <p>DVS-G900-8GF</p>	<ul style="list-style-type: none"> Data acquisition equipment connected to DIA cloud servers Supports a two-way data collection channel between the device and the cloud Various peripheral interfaces include RS-485, RS-232 and LAN ports Built-in RTC and supports NTP time synchronization over a network Supports TCP/IP, UDP, ICMP, DHCP, HTTP, DNS, SSH, TCP and Modbus RTU protocols 						
Industrial Ethernet cloud router (4-Port LAN FE + 1-Port WAN FE + 1 RS-232 + 1 RS-485)							
The DX-2310LN is an IoT wired communication product of industrial grade.							
The product includes Ethernet, RS232 and RS485 interfaces.							
	<ul style="list-style-type: none"> Flexible connection method over WAN ports, e.g. static IP, DHCP client and more Customisable SMS alarm functions SD card for data backup and quick installation 						
DX-2310LN	5	—	—	1	-20...+70°C	cloud based VPN router	5 260.00
Industrial 4G cloud router (1-Port Lan + 1-Port WAN/LAN + 1-Port RS-485 + 1-Port RS-232)							
The DX-2400L9 industrial router supports multiple mobile networks and provides internet access via WAN and cellular connections. It includes Ethernet, RS232, and RS485 interfaces							
	<ul style="list-style-type: none"> Connect to AWS IoT MQTT Broker through MQTT protocol Universal LTE-FDD and LTE-TDD frequency bands Connect to internet through 4G cellular network or WAN broadband interfaces 						
DX-2400L9	2	—	—	1	-20...+70°C	4G/WAN cloud router	7 510.00
Industrial 3/4G/WAN (1-Port WAN + 4-Port LAN + 1-Port RS-232 + 1-Port RS-485)							
<ul style="list-style-type: none"> USB port can accept 3rd-party Wi-Fi USB adapter (only Realtek RTL8192EU driver supported) Universal 4G LTE-FDD and LTE-TDD frequency bands 							
DX-3021L9	5	2	2	1	-20...+70°C	cloud based 4G/WAN router	14 500.00
Industrial fieldBus Delta solution							
Industrial automation products for converting communication signals of automation, servo and control devices. IFD communication modules are robust, high quality devices offering stable communication with in-built protection.							
type	from	to				description	price
Ethernet to serial Modbus RS-232/485 Converters (full isolation)							
IFD9506	RS-232/485	MODBUS TCP				converter (inc. power supply)	3 520.00
<i>To configure IFD devices you need to install DCISoft</i>							
Serial to serial communication converters							
IFD6500	USB	RS-485				converter (no ext. power supply required)	1 080.00
IFD6530	USB	RS-485				with 9V power supply (115.2k bps Max.)	1 820.00
IFD8500-A	RS-232	RS-422/485				RS-232 isolated converter	1 170.00
IFD8510	RS-485					isolated repeater/amplifier (extends transmission to 1.2 km)	1 350.00
<i>IFD65xx requires special driver to work with Windows OS, available on Delta website.</i>							
CAN / DeviceNet to serial converters							
IFD6503	USB	CAN				CAN to serial converter	4 710.00



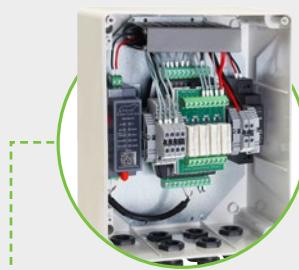
PM-GW-LTE



PM-GW-GE



PM-MB4442



PM-S-CUBE

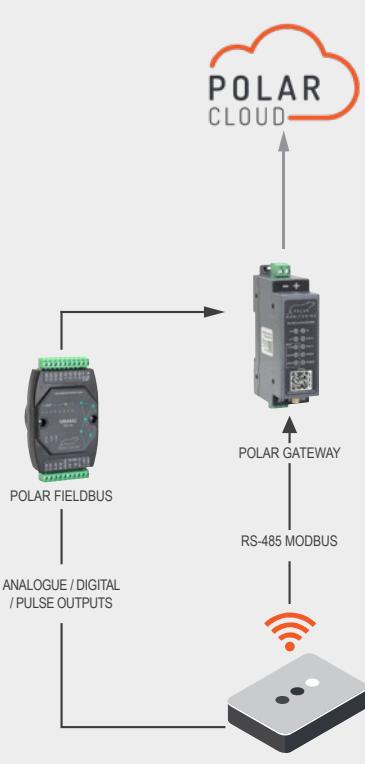


Polar Monitoring - All-in-One Cloud-Based Monitoring

Polar Monitoring offers a comprehensive, cloud-based monitoring solution tailored for the agriculture, commercial, and industrial sectors. This innovative system allows users to integrate and manage data from multiple devices and brands into a single, centralised platform, streamlining the process of data viewing and management.

type	supply voltage	network connection	connector type	description		price		
LTE gateway				DIN mounting rail	IP40			
LTE Gateways use the GSM/LTE mobile network to connect to the Polar Cloud Service. Gateways have a pre-installed SIM Card, managed by Polar Monitoring for user convenience.								
<ul style="list-style-type: none"> • SIM: Pre-installed, no airtime/data required (<i>managed by Polar Monitoring</i>) • Antenna Includes standard antenna (PM-A-2) 								
PM-GW-LTE	9 - 36 VDC	2G/LTE	terminal	LTE - Gateway (within South Africa)		2 920.00		
PM-GW-LTE-G*	9 - 36 VDC	2G/LTE	terminal	LTE - Gateway (outside South Africa)		2 920.00		
* For Zambia and Namibia add ZAM / NAM to the above part number								
Ethernet gateway				DIN mounting rail	IP40			
The Ethernet Gateway requires an existing on site internet connection. It connects directly into an existing IP network via DHCP.								
<ul style="list-style-type: none"> • DHCP client connects through firewall. No VPN or port forwarding required 								
PM-GW-ETH	9 - 36 VDC	Ethernet	terminal	Ethernet - Gateway		1 420.00		
Edge gateway				DIN mounting rail	IP40			
Introducing the Glacier Edge, the next-generation IoT edge gateway designed by Polar Monitoring for the industrial and commercial sectors.								
With the capability to store data locally and maintain on-site control even during an internet outage, the Glacier Edge experiences no downtime due to network issues and automatically syncs any missing data with the cloud once the connection is restored.								
<ul style="list-style-type: none"> • Key features: Dual Ethernet ports, GPS, Intel CPU 4-core 2.5Ghz, 4GB RAM, 126GB SSD, fan-less design, 4x isolated RS-485, Modbus TCP support, Virtual Com ports 								
PM-GW-GE	12 - 24 VDC	2G/LTE	terminal	Edge - Gateway		30 500.00		
Industrial fieldbus solution				DIN mounting rail	IP40			
type	supply voltage	inputs (DI)	outputs (D0)	inputs (AI)	pulse counter	price		
The PM-MB4442 is a Remote I/O solution designed for use with the Polar Gateway via RS-485. This unit supports 4-20mA analog inputs, pulse counters, and Digital I/O, allowing you to conveniently monitor real-world variables in the Polar Cloud.								
PM-MB4442	12 - 24 VDC	4	4	4 (4-20mA)	2	2 930.00		
Advanced remote monitoring and control solution				(H) 240 (W) 190 (D) 125				
The Polar Cube combines the Polar Monitoring LTE Gateway and the MB4442 module into an advanced remote monitoring and control system designed for easy installation and versatile application. Ideal for borehole and water pumping operations. Coupled to the Polar Cloud the system tracks and trends data in real-time, providing intuitive visualisation enabling alerts and detailed reports.								
<ul style="list-style-type: none"> • SIM: Pre-installed, no airtime/data required (<i>managed by Polar Monitoring</i>) • Antenna Includes standard antenna (PM-A-2) 								
PM-S-CUBE	12-24 VDC or 230 VAC	2G/LTE	-	remote monitoring and control solution		6 650.00		
Polar Cube requires polar license subscription								
Accessories for above								
type	gain	mounting	cable length	description		price		
PM-A-2	2.5db	magnetic	2m	magnetic base antenna cable		436.00		
PM-A-24	4db	bracket	5m	omni directional outdoor ant. cable		1 020.00		
PM-A-28	8db	bracket	5m	omni directional outdoor ant. cable		1 880.00		
PM-A-32	3db	p/mount	1m	vandal resistant ant. cable		481.00		
PM-CAB-RS-2	RS485		2m	shielded communication cable		93.00		
PM-CAB-RS-5	RS485		5m	shielded communication cable		141.00		
PM-CAB-RS-10	RS485		10m	shielded communication cable		221.00		
PM-CAB-D-2	RJ-45-RS485		2m	comm. cable for Delta VFDs		84.00		
PM-CAB-D-5	RJ-45-RS485		5m	comm. cable for Delta VFDs		148.00		
PM-CAB-D-10	RJ-45-RS485		10m	comm. cable for Delta VFDs		347.00		

Cloud-based remote monitoring systems



Polar Cloud - Software for Monitoring & Control

Polar Cloud serves as the backbone of the entire Polar Monitoring ecosystem. This user-friendly platform, in conjunction with the Polar Gateway, consolidates and displays crucial data from your field devices in a single location. It also provides the convenience of remote programming and system parameter adjustments.

The Polar Cloud is device and brand agnostic meaning one can monitor a multitude of different devices and brand types from one platform.

General features:

- Remote programming, monitoring, trending
- Alerts and notifications (SMS and email)
- Error codes and reporting
- Multiple user access rights
- Device agnostic (Supports multiple types of devices and applications in one platform)



Scan here to learn more

Pricing small to medium systems

Polar Site Based Licensing					Subscription options		
Code	I/O tags	Alerts	Schedulers	Up to Gateways	1-Year	2-Year	3-Year
PL-Y-T15	15	2	4	1	2 025.00	3 650.00	4 862.50
PL-Y-T32	32	10	20	2	4 325.00	7 775.00	10 362.50
PL-Y-T50	50	16	32	5	6 587.50	11 850.00	15 800.00
PL-Y-T100	100	32	64	10	12 825.00	23 087.50	30 775.00
PL-Y-T150	150	46	92	20	19 237.50	34 625.00	46 175.00
PL-Y-T250	250	70	140	50	31 225.00	56 200.00	74 925.00
PL-Y-T500	500	130	260	100	60 750.00	109 350.00	145 800.00
PL-Y-T1000	1 000	200	400	250	121 500.00	218 700.00	291 600.00

For 2 or 3 year licence option, replace Y with 2Y or 3Y to part number eg. PL-2Y-T15 for a 2 year licence

Extras

Additional tags, alerts and schedulers can be added to any licence above to extend the offering

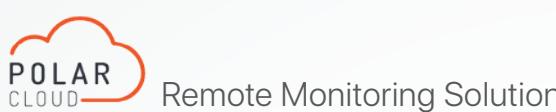
Code	description	price per year
PL-Y-AT-1	Additional Tag	172.80
PL-Y-AA-1	Additional Alerts	115.20
PL-Y-AS-1	Additional Schedulers	72.00

Note: Up front, net price, no discount applicable

* Glacier Edge Gateways require data bundles if connecting to the internet through the embedded SIM

** 3rd party API available

Polar Cloud - Software for Monitoring & Control



Polar Monitoring's new tag/site based licensing offers a flexible tag based pricing model. Below is an example of how the tag based model works and how you can implement it in your future projects and applications.

Step 1 Choose Your Gateway (LTE Local, LTE International, or Ethernet)

Step 2 Select Your Compatible RS485/Modbus RTU Device

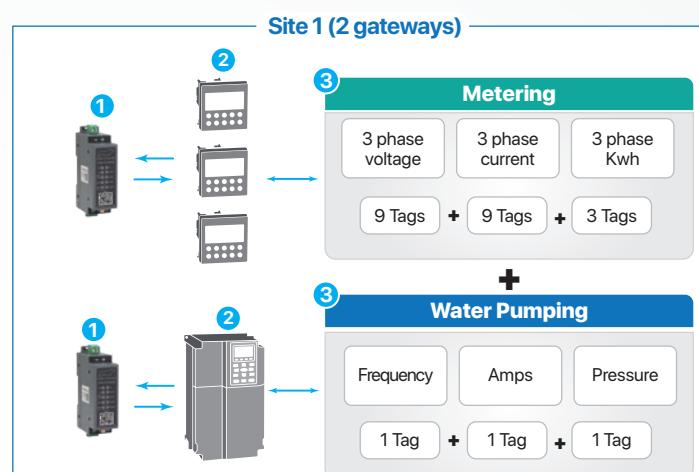
Step 3 Identify Your Monitoring Needs and Calculate Required Tags

Step 4 Choose a License That Fits Your Requirements

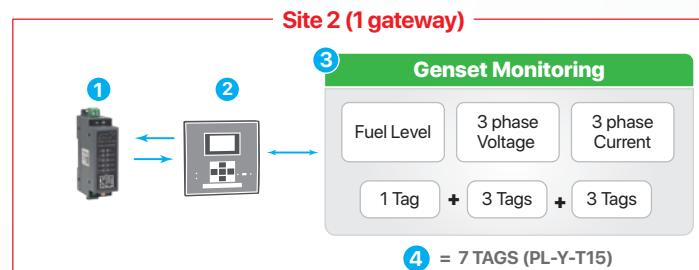


Test the Polar Platform today! Access the Polar Demo Portal via the QR code for a hands-on experience of everything Polar has to offer.

Site 1 (2 gateways)



Site 2 (1 gateway)



Powerful Simplicity

Monitor and Control your system from anywhere in the world

VTScada award-winning software trusted for real-time monitoring and control of industrial operations. Its user-friendly interface and advanced visualisation make it ideal for all users, ensuring operational excellence across industries.

Key Benefits:

- User-Friendly Interface:** Designed for both technical and non-technical users.
- Advanced Visualisation:** Clear and concise data presentation.
- Scalability:** Ideal for both small and large operations.
- Operational Excellence:** Reduce costs, enhance safety, increase uptime, and improve compliance.

Featured VTScada Industries



Manufacturing



Water & Waste
Water



Oil & Gas



Power
Generation



Mining



ICT



VTScada Successes

The City of Houston modernised its 400 MGD water purification plant expansion by implementing VTScada, providing real-time monitoring and control over its water and wastewater systems. This upgrade improved efficiency, reduced downtime, and enhanced reliability, ensuring continuous clean water delivery. The user-friendly interface also enabled the team to quickly adapt and optimise processes.



Scan to learn more



Scan to learn more

Bright Alloys, a ferrochrome smelter in South Africa, transformed into a more agile, sustainable, and efficient operation with the implementation of VTScada. This led to a one-third reduction in natural gas consumption, a 10% increase in furnace availability, and a 1% improvement in feed accuracy tolerance, driving better performance and reducing environmental impact.



Scan to learn more



A leading oil and gas producer modernised its operations with VTScada, enabling real-time monitoring and control across its complex infrastructure. This upgrade improved operational efficiency, reduced downtime, and enhanced safety, ensuring continuous production. The intuitive interface also allowed the team to quickly adapt and optimise processes.

Supervisory control and data acquisition systems

VTScada by Trihedral - SCADA system

SCADA (Supervisory Control and Data Acquisition) software is essential for real-time monitoring and control of industrial processes. Providing operators with tools to manage equipment efficiently, analyse data and respond to system alerts. This ensures optimal performance, safety and reliability across various industries.

Advanced SCADA Monitoring and Control with user-friendly design

VTScada an intuitive SCADA software solution designed to simplify complex industrial processes. Combining real-time data acquisition, scalable architecture and integrated alarm management enhancing operational efficiency while reducing learning curves for engineers.

With a customisable interface and extensive support resources, offering a user-centric approach to industrial automation, ensuring that new and experienced users can leverage their full potential.

- Integrated Alarm Management: Real-time event detection to prevent disruptions
- Scalable Architecture: Seamless integration across all system sizes
- Customisable Interface: Tailor your HMI to specific requirements
- Built-in Protocols: Hundreds of device drivers for broad connectivity
- Data Sharing: Integrates external data from 3rd party systems for seamless control

type	development runtime	alarm notification	data sharing	thin clients			price
				1	5	∞	

VTScada development runtime (200 Tag combos)

VTS-200DRTCANS	•	•	–	•	–	–	80 000.00
VTS-200DRULTCANS	•	•	–	–	–	•	250 000.00

Add additional thin clients (price per each thin client)

VTS-200VIC01	–	–	–	•	–	–	30 000.00
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Add 3rd party data sharing

VTS-2003RD	–	–	•	–	–	–	35 000.00
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Small to Medium Systems (up to 25,000 I/O Tags)

Designed to handle the complexities of large-scale industrial systems, VTScada offers robust scalability to manage thousands of I/O points seamlessly. Its architecture supports extensive data logging, high availability, and distributed systems across multiple locations.

Prices as per below table for custom builds

type	tags	run time	development runtime	alarm notification	data sharing	thin clients			dual server premium*
						1	5	∞	
VTS-001Kx	1 000	60 000.00	110 000.00	30 000.00	35 000.00	50 000.00	145 000.00	175 000.00	350 000.00
VTS-005Kx	5 000	75 000.00	145 000.00	50 000.00	45 000.00	60 000.00	190 000.00	290 000.00	520 000.00
VTS-010Kx	10 000	90 000.00	180 000.00	55 000.00	55 000.00	70 000.00	220 000.00	420 000.00	650 000.00
VTS-025Kx	25 000	105 000.00	215 000.00	70 000.00	60 000.00	90 000.00	290 000.00	660 000.00	900 000.00

Replace X above with A, B, C, D, S, T, U or V for the relevant software component - pricing for more than 25 000 tags available on request

* Dual Server Premium for Enterprise-Level SCADA solutions for large-scale critical operations (includes all of the features as below)

Access and User Interaction:		Unlimited Thin Clients	Unlimited PC and mobile access for seamless large-scale operations
		Widgets and Graphics Library	Access thousands of pre-built industry-specific widgets
Data Management and Analysis:		Multi-User Scripting	Advanced scripting capabilities with hundreds of functions
		Idea Studio	Powerful development environment with on/offline and multi-user support
System Security and Redundancy:		High-Performance Historian	Capture and store extensive real-time data with ease
		Comprehensive Trending	Automatic trend analysis with no additional setup required
Connectivity and Integration:		Customisable Reporting	Generate tailored reports to meet all compliance needs
		DataLogger Support	Integrated logging for DF1, SCADAPack, and more
System Management and Support:		Advanced Security	Robust, integrated security features for enterprise-level protection
		Backup Alarms and Event	Full redundancy for alarms and event logging
		Backup ODBC/OPC	Redundant ODBC and OPC servers for uninterrupted operations
		Backup Deployment	Redundant deployment tools for uninterrupted operations
		Common I/O Drivers	Supports Modbus, Siemens S7, Omron Host Link, Delta and more
		Advanced I/O Drivers	Includes DNP3, SNMP, Motorola ACE, and other advanced protocols
		Proprietary I/O Drivers	Supports DataFlow Systems and other proprietary protocols
		Data Sharing	ODBC Server, OPC Server, and Web Services for third-party integration
		Multi-Plant Support	Centralised management of multiple plants or locations
		Resource Monitoring	Full system view with SNMP Agent for efficient resource management
		SupportPlus Year 1	Unlimited support, upgrades, and version compatibility
		Version Control	Automatic version control (for seamless updates and disaster recovery)
		Change Deployment	Remotely update all system components with a single click
		Alarms and Events Logging	Comprehensive logging of all system and user actions

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