ADVANCED DETECTION PORTFOLIO

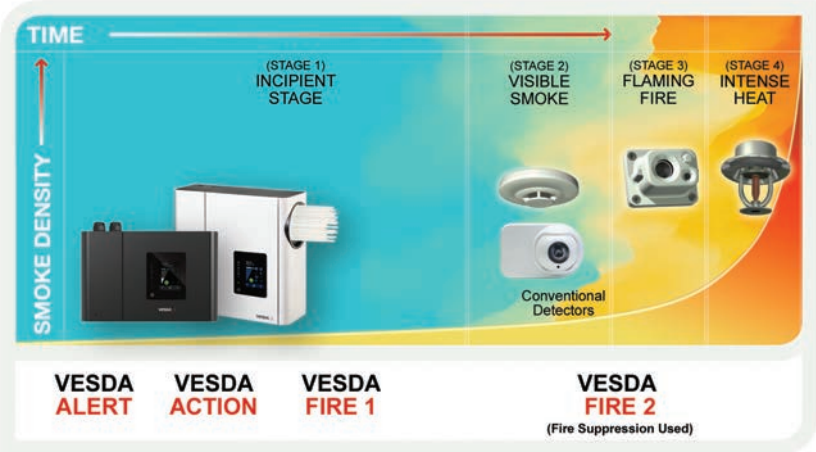



ASPIRATING SMOKE DETECTION
GAS DETECTION
OPEN AREA BEAM DETECTION

LEARN MORE: XTRALIS.COM

VESDA® & FAAST®

VESDA® & FAAST® aspirating smoke detection solutions with continuous air sampling provide the earliest possible warning of an impending fire hazard. Aspirating smoke detectors buy the critical time needed to investigate an alarm and initiate an appropriate response to prevent injury, property damage, or business disruption. Our ASD systems have multi-level warnings and a wide range of sensitivities that do not degrade or change over time, so even minute levels of smoke can be detected before a fire has time to escalate. In addition, our ASD systems are manufactured using Six Sigma techniques and ISO 9000 standards and have been certified by regulatory bodies worldwide.



VESDA-E ASPIRATING SMOKE DETECTORS

For decades, the VESDA range of aspirating smoke detectors has been recognized as the best in the world. The new VESDA-E family has a range of features, including:

- **VESDA Smoke+**, offers up to 15 times increased sensitivity, at least three times better dust rejection, up to twice the longevity while maintaining consistent sensitivity over time and up to 8% less power consumption per unit area
- **VESDA Flex** ensures future proof expandability for maximum flexibility using, StaX hardware expansion modules that easily bolt onto the VESDA-E detector to add additional capabilities, including power supplies and blowback units
- **VESDA Point Addressability with VEA** provides situational awareness to improve response time, efficiency and effectiveness through pin-point addressability for up to 40 locations
- **VESDA Connect** provides extensive connectivity options including Ethernet, Wi-Fi, USB, VESDAnet and relays, to reduce installation, commissioning, monitoring and maintenance costs
- **VESDA TCO** reduces the Total Cost of Ownership (TCO) through Capex value, OPEX savings, plug-and-play installation, design-less pipe and microbore tube networks, vast monitoring options, and backwards compatibility. With VESDA-E you can reduce TCO by up to 15% for non-addressable products and up to 60% for the point addressable products

All these features combine to make VESDA-E the best choice for early warning of smoke and fire threats. VESDA-E's sensitivity, flexibility, reliability, programmability, and expandability provides customers with superior performance and protection, while lowering the total cost of ownership (TCO).

VESDA-E ASPIRATING SMOKE DETECTORS

VESDA-E VEP — Mainstream ASD

The VESDA-E VEP series of smoke detectors bring the latest and most advanced detection technology to provide very early warning and the best nuisance alarm rejection to a wide range of applications. Built on the Flair™ detection technology and years of application experience, VEP detectors achieve consistent performance over their lifetime via absolute calibration. Flair is the revolutionary detection chamber that forms the core of the VESDA-E VEP, providing higher stability and increased longevity. Direct imaging of the sampled particles using a CMOS imager combined with multiple photodiodes allows better detection and fewer nuisance alarms. In addition, the VEP is backward compatible with VESDA VLP, allowing existing VLP installations to easily upgrade to the latest ASD technology.

VESDA-E VES — Sector Addressable ASD

The VESDA-E VES is similar to the flagship VESDA-E VEP aspirating smoke detector but also includes a valve mechanism in the inlet manifold to allow a single zone to be divided in to four separate sectors, for example, distinguishing between separate aisles within a data room. Each sector has four individually configurable alarm levels (Alert, Action, Fire 1 and Fire 2) allowing optimum protection in a wide range of applications and allowing the user to quickly locate the source of smoke. Once the detector has identified the First Alarm Sector, it continues to sample from all sectors to monitor fire growth.

VESDA-E VEA — Pinpoint ASD

VESDA-E VEA introduces a new approach for point addressable smoke detection; providing pinpoint addressability by using a network of VEA sampling points located in the protected area; connected to a centralized detector which actively draws air via microbore tubes. VEA provides assured detection by having end to end system integrity monitoring of the sampling network. VEA also provides flexible and fast installation utilizing easy to install flexible microbore tubes with push-fit connectors. The VEA detector supports 40 sampling points, all managed from the centralized detector which can be located in a readily accessible location. Centralized Test and Maintenance can reduce service time by up to 90% allowing servicing of up to 500 addresses a day lowering total cost of ownership by up to 60%. VEA centralized test and maintenance is ideally suited where interruption free business operation and restricted access are of paramount importance. With best in class connectivity via WAN and Wireless networks the iVESDA application provides real time and remote access for efficient and effective response.

VESDA-E VEU — Highest Sensitivity ASD

The VEU series of aspirating smoke detectors are the premium detector of the VESDA-E range. An ultra-wide sensitivity range; 15 times greater than VESDA VLP, and provision for more sampling holes provide an increased coverage in high airflow applications by at least 40%. Considerably longer linear pipe runs and extended branched pipe network configurations cater perfectly to applications with higher ceilings providing an increased coverage by up to 80% whilst allowing convenient detector mounting for ease of service and maintenance. A range of revolutionary new features provide unsurpassed detection performance, flexibility, field programmability, connectivity and reduced total cost of ownership.

VESDA LASER ASPIRATING SMOKE DETECTORS

VESDA Laser FOCUS (VLF)

VESDA VLF is ideal for small, business-critical spaces. Available in two models, the VLF-250 covers up to 250 m^2 (2,690 sq. ft.), and the VLF-500 covers areas up to 500 m^2 (5,380 sq. ft.).

VESDA Laser INDUSTRIAL (VLI)

VESDA VLI is an industry-first early warning ASD system, designed to protect industrial applications and harsh environments of up to 2000 m^2 (21,520 sq. ft.). The VLI detector combines a fail-safe Intelligent Filter (patent pending) with an advanced clean-air barrier for optics protection allowing the use of absolute detection and a long detection chamber life without the need for re-calibration.

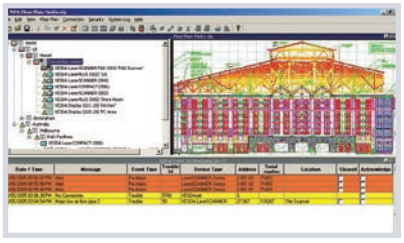
VESDA SOFTWARE

iVESDA Mobile Monitoring Application

iVESDA is a downloadable application that can be installed on Android and iOS handheld devices to monitor and maintain VESDA-E systems with unprecedented ease. iVESDA is also compatible with existing VESDA detectors residing on the same VESDAnet as VESDA-E. iVESDA provides detailed alarm, fault and other status information such as smoke trends, airflow, filter life, as well as viewing of important configuration parameters such as pipes in use and smoke alarm thresholds.

VSM4 — VESDA Smoke System Management Center

VSM4 configures, monitors and trouble-shoots Xtralis aspirating smoke detection systems. It is easy to use and has been designed to provide the operator with complete control. The user-friendly interface allows you to assess and respond quickly to system events – all from one convenient location. VSM4 is a total solution for integrated control and monitoring of your Xtralis very early warning smoke detection systems.

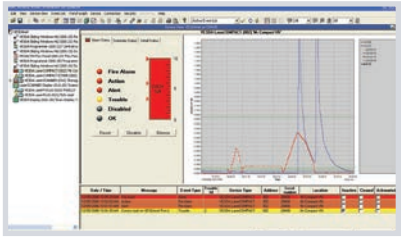


ASPIRE — VESDA System Design and Optimization

The performance of an aspirating smoke detection system is dependent on the design of the pipe network used to transport air back to the smoke detector. VESDA ASPIRE is a Windows-based application that aids the specification and design of pipe networks for VESDA air sampling smoke detectors. It provides the designer with tools to speed the design process and ensure optimum network performance and installation quality. ASPIRE also makes implementation of the design easy. With automatic generation of lists of all the components required for the project and an Installation Data Pack, the installer will have all the information they need at their fingertips.

VSC — VESDA System Configuration and Commissioning

VSC configures, commissions and maintains the full range of VESDA by Xtralis fire detection products including smoke detectors, LCD programmers and high-level interfaces. VSC can configure a single VESDA smoke detector or an entire network and is equipped with additional features that allow faster setup, fault resolution and event diagnostics.



VESDA-E & VESDA FEATURES

Feature	VESDA-E					VESDA LASER	
	VEU	VEP		VES	VEA	VLF 250/500	Industrial VESDA VLI
		VEP 1-pipe	VEP 4-pipe				
Pipes and Area Coverage							
Pipe Length (Linear)	400 m (1,312 ft)	100 m (328 ft)	280 m (919 ft)	280 m (919 ft)	40 x 100 m (40 x 328 ft)	25 / 50 m (82 / 164 ft)	360 m (1,181 ft)
Pipe Length (Branched)	800 m (2,624 ft)	130 m (427 ft)	560 m (1,837 ft)	560 m (1,837 ft)	N/A	30 / 60 m (98 / 197 ft)	445 m (1,460 ft)
Area Coverage	6,500 m^2* (69,965 sq.ft)	1,000 m^2 (10,760 sq. ft)	2,000 m^2 (21,520 sq. ft)	2,000 m^2 (21,520 sq. ft)	2,000 m^2 (21,520 sq. ft) across 40 sample holes	250 / 500 m^2 (2,690 / 5,380 sq. ft)	2,000 m^2 (21,520 sq. ft)
No. of Pipe Inlets	4	1	4	4	40	1	4
Multiple Pipe Addressability	No	No		Up to 4	Up to 40	No	No
Sensitivity							
Min Fire 1 Threshold	0.001% obs/m (0.0003% obs/ft)	0.01% obs/m (0.0031% obs/ft)		0.01% obs/m (0.0031% obs/ft)	1.6% obs/m (0.5% obs/ft)	0.025% obs/m (0.008% obs/ft)	0.15%/m (0.046%/ft)
Detection Range	0.001 - 20.0% obs/m (0.0003 - 6.25% obs/ft)	0.005 - 20% obs/m (0.0016% - 6.25% obs/ft)		0.005 - 20% obs/m (0.0016% - 6.25% obs/ft)	0.020 - 16% obs/m (0.006 - 4.88% obs/ft)	0.025 - 20% obs/m (0.008 - 6.25% obs/ft)	0.005 - 20.0% obs/m (0.0016 - 6.25% obs/ft)
EN54-20 (Class A/B/C)							
Max. no of Holes (Class A / B / C)	80 / 80 / 100	30 / 40 / 45	40 / 80 / 100	40 / 80 / 100***	40 - 40**	VLF 250 12 / 12 / 12; VLF 500 30 / 30 / 30	24 / 28 / 60
Sampling Point Sensitivity (%obs/m)	1.5 / 3 / 8	1.5 / 3 / 8		1.5 / 3 / 8***	1.6 / 4 / 8	1.5 / 4.5 / 10	1.5 / 4.5 / 10
Transport Time (seconds)	70 / 90 / 110	60 / 90 / 110		60 / 90 / 90***	40 - 90 (Tube length dependent)	VLF 250 60 / 60 / 60 VLF 500 90 / 90 / 90	60 / 90 / 120
Additional							
Hazardous Area Approval (FM Class 1, Div 2, Groups A, B, C, D)	No	Pending	Pending	No	N/A	Yes	Yes
IP Rating	IP40	IP40		IP40	IP40	IP30	IP66
Two Stage Filtration	Yes	Yes		Yes	Yes	Yes	Patented Intelligent Filter Secondary Foam Filter Sub-sampling Probe
Worldwide Certificates	UL, ULC, FDA, VdS (EN54-20), CE, CSFM, FM, AFNOR, VNIIPO, ActivFire (ISO 7240-20), BOMBA, RCM CCCF	UL, ULC, FDA, VdS (EN54-20), CE, CSFM, FM, AFNOR, VNIIPO, ActivFire (ISO 7240-20), BOMBA, RCM, CCCF		UL, ULC, FDA, VdS (EN54-20), CE, CSFM, ActivFire (ISO 7240-20), BOMBA, RCM	UL, ULC, FDA, VdS (EN54-20), CE, CSFM, FM, ActivFire (ISO 7240-20), BOMBA, RCM, CCCF	UL, ULC, FM, LPCB, VdS, CFE, ActivFire, AFNOR, UL268A (in-duct application), VNIIPO, CE, NY-MEA, CSFM, FDA, BOMBA, ONORM, RCM, EN 54-20	UL, ULC, FM, ActivFire, CE, LPCB, VdS, AFNOR, CSFM, FDA, BOMBA, VNIIPO, RCM, NY-MEA, SIL 2 as per IEC 61508, EN 54-20

* System design and regulatory requirements may restrict the monitoring area to a lesser amount
** Check local codes for the required transport times determined by the tube lengths
*** Subject to agency Testing

FAAST FLEX ASPIRATING SMOKE DETECTOR

FAAST FLEX

FAAST FLEX offers a highly flexible and cost-effective ASD solution for a wide range of applications such as small to medium warehouses, cold storage, elevator shafts, ceiling and underfloor voids, transformer and electrical rooms, rest rooms and the like. FAAST FLEX provides consistent detection with minimum nuisance alarms to reduce operational costs enabled by improved detection chamber design.

The system continuously draws air from the monitored environment through a series of sampling holes to monitor the environment for smoke particulate.

Feature	FAAST FLEX
Pipes and Area Coverage	
Max. Single Pipe Length	Single Channel: 1 x 105m (344 ft) Dual Channel: 2 x 105m (344 ft)
Max. Branched Pipe Length	Single Channel: 2 x 105m (344 ft) or 4 x 68m (223 ft) Dual Channel: 4 x 105m (344 ft) or 8 x 49m (161 ft)
Pipe Inlets	1 or 2
Pipe Network Design Tool	Pre-engineered, PipeIQ
Coverage Area	Single Channel: 1600m² (17,200 sq.ft) Dual Channel: 2000m² (21,527 sq.ft)
Sensitivity	
Max. no of Holes (Class A / B / C)	Single Channel (5 / 15 / 32) Dual Channel (8 / 28 / 56)
Sensitivity Range	0.05%obs/m to 6.56%obs/m
Relays	3 per channel; Action, Alarm and Fault 2A @30V
General Specifications	
Alarm levels	2: Action and Alarm per channel
Event Log	2100
General Purpose Input (GPI)	Reset, Disable, External Fault
Out-of-Box Configuration	DIP Switches
Flow Sensing	Ultrasonics
Field Replaceable Components	Sensing Module, Metal Filter, Front Cover, Aspirator, Internal Covers and Adaptor Set
Environmental Specifications	
Operating Temperature	Ambient: -40°C to 55°C Sampled Air: -40°C to 55°C
Humidity Range	10% to 93% RH, non-condensing
IP Range	40
Additional	
Worldwide Certificates	VdS, EN 54-20 (ISO 7240:20)
Addressability	Yes (2 Separate Smoke Chambers)
Communication	USB, Bluetooth
Network Management Software	Phone App
Environmental Learning (flow)	Set Reference Flow
Dust Rejection	On-board filtration In-line filtration (optional)
Network Enabled	Loop/Modbus (future)
Multiple Fan Settings	Yes
Fan Setting	Adjustable

XTRALIS GAS DETECTORS

Xtralis offers more than just fire detection solutions. Our VESDA ASD systems can be extended to include gas detection and environmental monitoring. VESDA Sensepoint XCL is a gas detection solution that utilizes the ASD pipe network to deliver superior gas detection via multiple hole (multi-point) sampling. The combined solution provides reliable detection of gases for occupant protection and process monitoring whilst simultaneously ensuring protection against fire threats.

The Li-ion Tamer Rack Monitor system is a gas detection solution that enhances the safety of lithium ion battery installations. It provides an alert to the venting of electrolyte solvent vapours (off-gas phase) that occurs early in the failure mode of li-ion batteries well in advance of smoke detection and traditional LFL gas detectors. The early detection of this event allows proper mitigation steps to be taken to avoid a catastrophic thermal runaway failure.

VESDA SENSEPOINT XCL SMOKE DETECTORS

VESDA Sensepoint XCL - Micro Bore

VESDA Sensepoint XCL – Micro Bore is a gas detection solution that can be added to existing or new VESDA-E VEA tube network installations to actively monitor for gas leakages and build-ups. It integrates with other building systems, including fire alarm control panels, PLCs, HVAC and building management systems, and provides real-time situational awareness for intelligent emergency response.

VESDA Sensepoint XCL - Large Bore

VESDA Sensepoint XCL – Large Bore is a gas detection solution that utilizes the ASD pipe network to deliver superior gas detection via multiple hole (multi-point) sampling. The combined solution provides reliable detection of gases for occupant protection and process monitoring whilst simultaneously ensuring protection against fire threats.

LI-ION TAMER BATTERY RACK MONITOR

Li-ion Tamer Battery Rack Monitor

The Li-ion Tamer Battery Rack Monitor is a safety product specifically designed to detect the potential thermal runaway of lithium-ion batteries. The key to Li-ion Tamer's value proposition is the distributed gas sensing network that provides the earliest warning of battery failure by detecting when a single cell starts venting electrolyte solvent vapours. If Li-ion Tamer off-gas monitoring is paired with proper mitigating actions, thermal runaway can be entirely avoided.

OPEN AREA BEAM DETECTORS

OSID — Open Area Smoke Imaging Detectors

The OSID range of detectors provides reliable, cost-effective smoke detection for open spaces where fire detection presents unique challenges and where very early warning is not always the priority. Using CMOS imaging technology, the OSID range uniquely delivers faster installation and superior detection performance that cannot be achieved by traditional reflective beam detectors. The CMOS imager has a field of view that allows rapid set up reducing installation time from hours to minutes. The CMOS imager finds and locks on to their detection target (Emitter or Reflector); is then set to ignore unwanted light reflections and can accommodate building movement issues. The CMOS imager allows to minimize drastically false alarms from foreign object intrusion and sunlight saturation.

In its simplest configuration, OSID-R (reflective) uses an imager and a reflector. It operates on the principle of light obscuration utilizing an Infra-Red beam and smart analysis at a pixel level of its reflector, offering superior performance. Power and connectivity occur in the imager only and the OSID-R only requires a single standard reflector on the opposite wall irrespective of detection distance.

OSID-DE (dual-ended) uses a wired or battery-powered emitter(s) roughly aligned on the opposite wall within the protected area. The emitter sends both infrared and ultraviolet coded light signals to the imager. The innovative use of dual light frequencies in an open-path device enables OSID-DE to discriminate between real smoke and solid objects; allowing a high resistance to sudden and transient dust and steam clouds, thus drastically reducing false alarms. In a multi-emitter configuration, OSID-DE can have up to 7 emitters for a single imager offering a true 3D detection solution.

6500E — PHOTOCELL RECEIVER DETECTORS

The 6500RE and 6500RSE are conventional reflector- type linear optical beam smoke detectors designed to operate as components of conventional fire alarm systems. They operate primarily on the principle of light obscuration utilizing a single Infra-Red beam and photocell receiver. The 6500RE has a unique remote test capability that fully tests both the optics and the electronics of the device.

FEATURE	OSID-DE	OSID-R	6500
Beam	Dual IR/UV	Single IR	Single IR
Technology	End-to-end/Multi-emitter (*)	Reflective	Reflective
Distance	200 m/656 ft.	100 m/328 ft.	100 m/328 ft.
Free FOV	20x20cm	40x40cm	40x40cm/80x80 cm (with LRK)
Building movement	+/-2°	+/-1°	+/-0.5°
Resistance to dust	Yes	No	No
Beam through glass panes	Yes	No	No
Resistance to solid object intrusion	Yes (Fault)	Yes (Fault)	No
Resistance to sunlight saturation	Yes (Fault)	Yes (Fault)	No
Angle of sunlight rejection	-	10°	10°
Log & diagnostics	Yes	No	No
Test at ground level	No	Yes	Yes
IP range	IP45	IP 55	IP54
T° range	-10 °C to 55 °C	-20 °C to +55	–30°C to 55°C
Max. Current	8mA (31 mA alignment)	22 mA @ 15 VDC (Intl.) 54 mA @10.2 V (Conv.)	8.5mA Max. (Intl.) 38.5mA (Conv.)
Voltage range	20-30 VDC	15-32VDC (Intl.) 10.2 to 32 VDC (Conv.)	15-32VDC (Intl.) 10.2 to 32 VDC (Conv.)

FAAST LT-200

The FAAST LT-200 ASD is designed with the installer and end user in mind. It serves the wide variety of Class C applications where maintenance is difficult, where traditional smoke detection methods are inappropriate or prone to fail due to harsh environments or areas where aesthetics matter. It is also suitable for smaller mission-critical applications where very early warning - Class A or B detection is required. FAAST LT-200 combines proven aspirating detection technologies to deliver reliable smoke detection and efficient installation and maintenance. The device comprises innovative and intelligent internal design features designed to protect vulnerable components. These include a high sensitivity LED detection chamber (featuring a high-power output IR LED and high gain IR receiver amplifier), along with ultrasonic flow sensors. The device is fast to install and easy to commission thanks to Pipe-IQ pipe design and configuration software, which is included as standard. FAAST LT-200 stand-alone devices are available as single channel and dual channel devices, offering flexibility for different detection strategies. A range of customizable settings are geared towards maximizing device performance and meeting different application needs. The device also includes pre-alarm functionality for graduated alarm thresholds. The FAAST LT-200 provides alarm and fault relays with auxiliary events relay as an option. These can be set as latched or non-latched. To accommodate local installation standards or environments, flow and general fault delays can also be set.

FAAST LT-200 Features

FEATURES	SPECIFICATION
Max. Single Pipe Length	100 m
Max. Total Branched Pipe Length	160 m (per channel)
Maximum Air Inlet Holes	18 (per channel)
Outside Pipe Diameter	25 mm or 27 mm
Internal Pipe Diameter	15 - 21 mm
Sensitivity Range	0.07 - 0.66% obs/m (Alarm level 1-5)
Relays	3 (1 Alarm, 1 Fault, 1 Pre-Alarm) x per channel
Sounder Outputs	1 per channel
Sound Performance	As low as 26db(A)
Event Log	2,244 events
Interfaces	Terminal blocks: power supply, relays, sounder outputs, external input; Loop Connection, USB port; Buttons (Test, Reset, Disable)
Power Supply & Relays Connections	Max. 2 mm^2
USB	Standard USB cable for Type B USB connection
Shipping Weight - Inc. Packaging Material	6.5 kg (dual channel)
Flow Monitoring & Reporting	High and low according to EN54-20
Filtration	Replacement filter
Smoke Sensors	High sensitivity LED Detection Chamber
External Supply Voltage	18.5 - 31.5 V
Remote Reset Time	2s
Power Reset	0.5s
Operating Current	
1 Channel Device	170 mA @ 24 VDC (excluding sounders)
2 Channel Device	270 mA @ 24 VDC (excluding sounders)
Max. Alarm Current	
1 Channel Device	360 mA @24 VDC (excluding sounders)
2 Channel Device	570 mA @24 VDC (excluding sounders)
Relay Contact Ratings	2.0 A @ 30 VDC, 0.5A @ 30 VAC)
Environmental Specifications	
Operating Temperature	-10°C to 55°C
Humidity Range	10% to 93% (non-condensing)
IP Range	65
Coverage Area	Up to 2,000 m^2 according to national design regulations

PIPEIQ

Pipe-IQ, the all-in-one pipe design, configuration and monitoring software - guides users through system design and provides full device configuration and ongoing system monitoring. Pipe-IQ™ is included free of charge with FAAST devices.

ABOUT XTRALIS

Xtralis is a leading global provider of powerful solutions for the very early and reliable detection of smoke, fire, and gas threats. Our technologies prevent disasters by giving users time to respond before life, critical infrastructure or business continuity is compromised.

We protect highly valued assets and infrastructure belonging to the world's top governments and businesses.

To learn more, please visit us at www.xtralis.com

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