Uniphos
KwikSecure
Multi Channel Controllers

The UNIPHOS Multichannel Controllers are versatile devices designed to monitor and display the process values from field devices. It continuously monitors gas detection and instantly handles the measurements of detectors. The Controller, apart from powering the transmitters, also provides a real time digital display of the gas concentrations, a variety of status alarms and the facility to Inbuild datalogging with export to USB.

Uniphos provides a wide range of controllers ranging from simple with the 2 channel controllers to sophisticated systems capable of connecting up to 32 transmitters. Ability to activate alarms at multiple levels and control other equipment, apart from displaying gas concentration levels and the live status of the monitoring system, Uniphos Controllers are the perfect companion for the entire range of KwikSense Smart Digital Gas Transmitters.
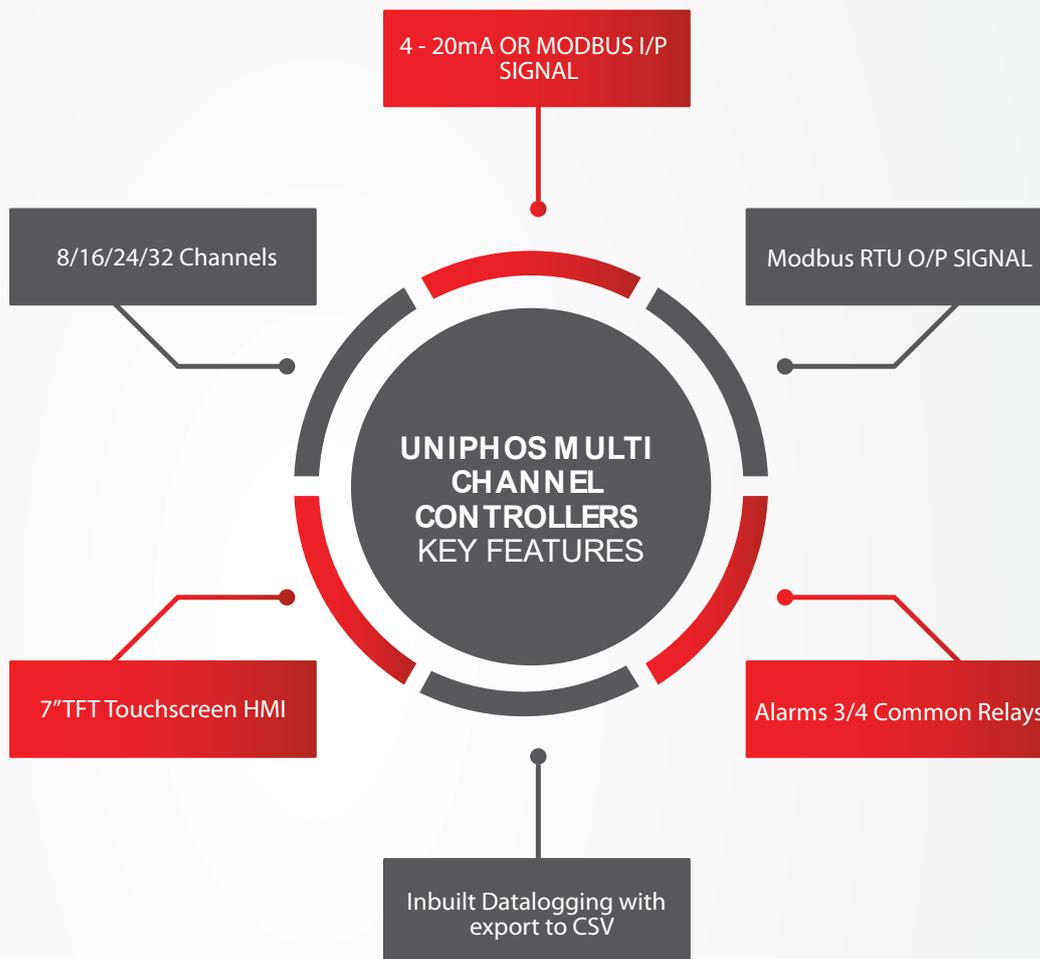
Multi Channel Controllers

UNIPHOS Gas Monitoring Systems

For monitoring fixed locations in factories, fixed gas monitoring systems are used. Depending upon the number of monitoring points and their distribution in a factory, a variety of fixed systems can be configured.

All fixed systems consist of two basic units:

1) Gas Transmitter's housing and the Sensor located at the monitoring sites
2) A controller kept far away in the control room. Depending upon the total no. of monitoring points and their distribution, the controllers can take different forms with a variety of features & functions.

UNIPHOS has built all the building blocks to cater to the monitoring needs of a small factory with one/two transmitters or very big plants with hundreds of transmitters spread over a large area.

UNIPHOS MULTI CHANNEL CONTROLLERS KEY FEATURES

- 4 - 20mA OR MODBUS I/P SIGNAL
- 8/16/24/32 Channels
- Modbus RTU O/P SIGNAL
- 7"TFT Touchscreen HMI
- Alarms 3/4 Common Relays
- Inbuilt Datalogging with export to CSV

Multi Channel Controllers: **500-H & HA Series**

Display	7" TFT, Touchscreen HMI
Channels/Screen	8 Channels per screen
Screen Scrolling	Auto/Manual (Supported for above 16 Channels)
Remote Panel Supported	Yes*
Output signal	COM1 - RS485 (2Wire) MODBUS RTU Slave COM2 - RS485 (2Wire) MODBUS RTU Slave/Uniphos Proprietary Protocol
Input Power	230V/110 VAC, 50/60 Hz
Output Power	24VDC (for transmitters only)
Suitability	2-wire & 3-wire Transmitters
Temperature	5 to 50 °C
Pressure	Ambient +/- 10%
Data logging	Inbuild datalogging with export to USB (.csv" format)

	500-H SERIES	**500-HA SERIES**
No. of Channels	8/16	8/16/24/32
Input signal	Industrial Standard RS-485, 2 Wire over MODBUS RTU Protocol	Industrial Standard 4-20mA Analog input
Alarms	(Relay Acknowledgement features allow silencing of external Audible devices during existing Alarm conditions)	(Relay Acknowledgement features allow silencing of external Audible devices during existing Alarm conditions)
Enclosure	Polycarbonate	Polycarbonate/MS Powder Coated
Relative Humidity	20 to 90 % RH Non-Condensing	-
Altitude	≤2000m	-
Pollution Degree	2	-
IP Rating	4X	-
Weight	6 kg approx	6 kg/15 kg approx
Dimensions	H=300mm, W=400mm, D=132mm	H=300mm, W=400mm, D=132mm H=700mm, W=500mm, D=268mm

500-HA SERIES

The Uniphos-**500HA** is a robust Multi Channel Safe Area controller which can connect   8/16 and 24/32 Channels. Being an analog controller, it accepts 4-20 mA input from the transmitters and displays the required output on its 7" TFT touchscreen. Each channel in the controller is user settable for range,resolution, alarms, tags etc. Uniphos- 500H has 4 common potential-free relay contacts to activate alarms or any other equipment. The on-board data logging allows easy access to historical data via USB interface.

500-H SERIES

The Uniphos **500 8/16** is an adaptable, compact MODBUS based controller which can connect up to 16 numbers of KwikSense Gas Transmitters. It comes in 2 variants – 8 channel and 16 channels. Being a Modbus Scanner, it receives data in MODBUS RTU format from the digital gas transmitters and displays the required output on its screen. Each channel in the controller is user free settable for alarms, tags etc. The Uniphos 500 8/16 has 3 common potential- relay contacts to control alarms or any other equipment.The on-board data logging allows easy access to historical data via a USB interface.

www.uniphos-envirotronic.com | gasdetection@uniphos-envirotronic.com

UNIPHOS-500(W) Dual & Quad Channel Wall Mountable Controller

▶ Microcontroller based system with inbuilt self-test facility

▶ Two User – Settable alarm set points and one Fault alarm

▶ Three Potential free Relay Contacts per channel Viz for Low alarm, High alarm & Fault alarm conditions

▶ Compatible with 4-20mA inputs from both two wire and three wire transmitters.

▶ Reset switch for resetting the alarm LEDs.

▶ 4-20 mA loop back signal

▶ LED 7-segment display showing the instantaneous gas concentration.

▶ FLP model: Suitable for Exd IIC Zone 1&2

The **500 W(2)** Dual Channel Controller is designed to accept analog 4-20 mA signal from one or two transmitters providing centralized monitoring of gas concentrations at one or two locations. The hi-visibility LED display aids in providing a clear reading of the gas concentration even from a distance or in low light situations. The two-user settable alarm set points per channel and 3 relay contacts corresponding to each alarm condition provide a plethora of connection options. The additional RS-485 port enables easy data transfer from the controller to a PC.

The Uniphos **500 W(4)** is a wall mountable, quad channel microprocessor-based controller. The Hi- visibility LED display provides a clear reading of the gas concentration evenfrom a distance or in low light situations. The two-user settable alarm set points per channel and 3 relay contacts corresponding to each alarm condition provide a plethora of connection options.

UNIPHOS-500(W) Dual & Quad Channel Wall Mountable Controller

	500-W(2)	500-W(4)
Display	3-digit 7 segment LED display per channel	
No. of Channels	2	4
Input signal	Industrial Standard 4-20 mA analog signal	
Output signal	4-20 mA Loop back signal	
Alarms	UP, DOWN, SET & ENTER	
Data logging	Data connectivity option to PC (GUI Optional)	
Input Power	230V/110 VAC, 50/60 Hz	
Output Power	24VDC (for transmitters only)	
Temperature	0 to 50 °C	
Pressure	Ambient +/- 10%	
Enclosure	FRP/FLP/Metallic	FRP
Weight	FRP: 6 kg approx. FLP: 17 kg approx. Metallic: 4.5 kg approx.	6 Kg Approx.
Dimensions	FRP: H=350mm, W=300mm, D=175mm FLP: H=425mm, W=310mm, D=220mm Metallic: H=300mm, W=250mm, D=120mm	H= 350mm, W = 300mm, D = 175 mm

Multi Channel Controllers: 500-HAE Series

The UNIIPHOS-500HAE Multichannel Controller is a versatile device designed to monitor and display the process values from field devices. It is specifically designed to work with UNIPHOS gas transmitters that provide a 4-20mA current signal. The controller can also connect to other field devices either 2 wire or 3 wire that offer a 4-20mA analog signal. It can accommodate up to 16 digital transmitters with the base unit supporting 8 channels and the option to expand up to 32 channels using the 8-channel addon modules.

The controller features a touchscreen display that allows users to configure various settings and view process values. The display shows the process values of the required parameters for all connected transmitters. Each channel is user-configurable for range, resolution, alarms etc. The configuration parameters set by the user using the touchscreen display are stored in the controller's memory. Even in the event of a power failure, these parameters will be retained. To prevent accidental invalid programming by unauthorized personnel, each mode of the instrument is password protected. This feature adds a layer of security and safeguards against unauthorized changes to the configuration settings.

The Multichannel Controller is equipped with a power supply module that provides power to the connected transmitters. It provides 5 common onboard relays. These relays can be used for various purposes such as activating alarms or controlling external devices based on the configured alarm conditions.There is an option to add an additional relay card for individual relays per channel functionality. The Addon relay card is designed specifically for **the Uniphos-500HAE** Multichannel Controller and provides 16 additional relays, allowing two relays per channel. This configuration enables more flexible control and alarm options for each individual channel.

For applications that **require a 4-20mA** analog output, the controller offers an addon module that provides 8 channels of 4-20mA output capability. This allows for integration with other control systems or data acquisition devices. It features Multi-Languages for ease of access: English / Spanish / German / Russian.

Multi Channel Controllers: **500-HAE Series**

Display	7-inch TFT Graphic Display
No. of Channels	Base Version with 8 Channel, Expandable up to 32 CH (in multiples of 8) Main Unit - (8 CH + 8 CH) Expander Unit -(8 CH + 8 CH)
Input signal	Industrial Standard 4-20mA analog input
Output signal	Industrial standard 4-20mA (Optional)
Mounting	Wall Mount
Data logging	System events with Date-Time stamp
Input Power	230V/110 VAC, 50/60 Hz
Temperature	0 - 55 °C
Enclosure	FRP
Dimensions	H=300mm,W=400mm,D=190mm approx.
User Operation	Touch operation. One Push Button (For Acknowledgement)
BATTERY BACKUP	12 V 7 Ah Lead acid battery (Optional) On board feature: battery charging and auto switch to battery
MOC	Polycarbonate
Humidity	0-95% (non-condensing)
Storage Temperature	0- 70 °C
LED indication	Power and Battery Indication LEDs
Cable Entry Size	M20 (24 Nos), M32 (1 Nos)
Weight	7 - 8 Kg (Without Battery)
Alarms	5 Common relay (Resistive load only) Alarm1, Alarm2, Alarm3, Alarm4, Fault Expandable Relay module (Optional)
Cable Entry No	25
Communication	Modbus RTU slave over RS485

UNIPHOS-500(R2) Multi Channel Rack
Mountable Controller

Display	3-digit 7 segment LED display per channel
No. of Channels	16 (Expandable in multiples of two)
Input signal	Industrial Standard 4-20 mA analog signal
Output signal	4-20 mA Loop back signal
Alarms	3 potential free relays per channels for Low, High and Fault Alarm
Communication	MODBUS OVER RS485
Input Power	230V/110 VAC, 50/60 Hz
Output Power	24VDC (for transmitters only)
Temperature	0 to 50 °C
Pressure	Ambient +/- 10%
Enclosure	Al
Weight	6.5 Kg Approx.
Dimensions	H=245mm, W=480mm, D=130mm

▶ Compatible with 4-20mA inputs from either two wire or three wire transmitters

▶ Microcontroller based system with inbuilt self-test facility

▶ LED display showing the instantaneous gas concentration

▶ Two user programable alarm set points and relay contacts per channel

The building block design of the Uniphos 500 R2 provides the flexibility to build a system as small as 2 channels or as large as 16 channels. The Controller, apart from powering the transmitters, also provides a real time digital display of thegas concentrations, a variety of status alarms and MODBUS Output.

Uniphos 500R2 16 Channel Rack Mountable Controller This compact multi-channel controller is designed to accommodate 16 channels in a single 19" rack. It has a building block design, which provides one with the flexibility of building a system as small as one channel or as large as 16 channels. This is a microprocessor based system and can accept an industry standard 4-20mA analog signal from the transmitters. For each channel, it has two user settable alarm set points & one fault alarm and 3 relay contacts corresponding to each alarm condition. All settings on individual channels are password protected.

UNIPHOS-500W(S) Multi Channel Scanner

Display	2 Nos of 3 Digit 7-segment LED display
No. of Channels	8
Input signal	Industrial Standard 4-20 mA analog signal
Output signal	RS485 (2Wire) MODBUS RTU Slave/Uniphos Proprietary Protocol
KEYS FUNCTION	User-friendly Push-Button keys -UP, DOWN, SET, ENTER Parameter Settings:
Channel Status	Red Blinking – Alarm Active Green Latch – Normal Red Latch – Alarm Latch Multicolor LED per channel for status indication Blue Blinking – Fault
Range	User programmable between 0-999
Resolution	User programmable 0.01 OR 0.1 OR 1
Accuracy	± 2% Of FS
Skip	Channel Skip Facility available
Communication	Modbus over RS485
Scan Time	Programmable 2-16 Seconds, With HOLD facility
Input Power	230V/110 VAC, 50/60 Hz
Output Power	24VDC (for transmitters only)
Current Consumption	< 200mA @230VAC
Suitability	2-wire & 3-wire Transmitters

PHYSICAL SPECIFICATIONS

Temperature	0 to 50 °C	0 - 55 °C
Storage Temperature	---	0- 70 °C
Humidity	---	0-95% (non-condensing)
Pressure	Ambient +/- 10%	---
Weight	FRP: 6 kg approx.	FLP: 17 kg approx.
MOC	---	LM6
Dimensions	FRP: H=350mm, W=300mm, D=175mm FLP: H=425mm, W=310mm, D=220mm	H=425mm, W=310mm, D=220mm approx.
Cable Entry Size	---	½ NPT
Cable Entry No	---	12
Mounting	---	Wall Mount
Enclosure	FRP	FLP

UNIPHOS-500W(S) Multi Channel Scanner

▶ Microprocessor based system with inbuilt memory.

▶ LED display (6 digit 7-segment) for display of gas concentration sequentially of all 8 channels. Three digits will show the channel number Viz. 1 to 8 & the remaining three digits will show gas concentration (max. 000 to 999).

▶ 3 LEDs and 5 relays for Low, High & Fault alarm conditions

▶ Inbuilt SMPS

▶ Front panel is provided with four keys viz. SET, UP, DOWN and ENTER

▶ FRP: Safe Area

▶ FLP: Exd IIC suitable for Zone 1 & 2

The **Uniphos 500 W(S)** eight channel scanner provides an economical way to monitor up to 8 gas transmitters. The High visibility LED display provides a clear reading of the gas concentration even from a distance or in low light situations. The two-user settable alarm set points per channel and 3 common relay contacts corresponding to each alarm condition provide a plethora of connection options.
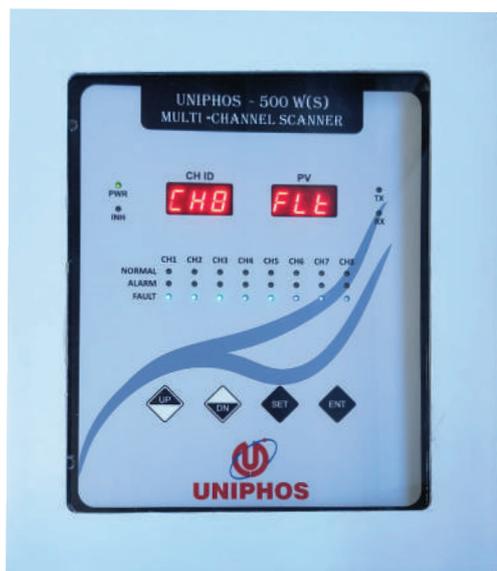
Uniphos
Trusted Worldwide

Canada
Houston USA
Mexico
Guatemala
Honduras
Nicaragua
Colombia
Brazil
Uruguay
Argentina

United Kingdom
Norway
Netherland
Germany
France
Spain
Greece
Russia
Ukraine
Turkey
Israel
Saudi Arabia
Kuwait
UAE
Oman
Senegal
Uganda
Kenya
Tanzania
Zambia
South Africa
India
Korea
Japan
Taiwan
Malaysia
Singapore
Indonesia
Australia
New Zealand

● MANUFACTURING   ● STOCK LOCATIONS   ● DISTRIBUTORS   ● SUBSIDIARY   ● BRANCH OFFICE

Marketing Office:
Uniphos Envirotronic Pvt. Ltd
Readymoney Terrace,
167, Dr. Annie Besant Road,
Worli, Mumbai 400 018, India.
Tel. : +91(22) 6123 3500

Manufactured By:
Uniphos Envirotronic Pvt. Ltd
P.O.Nahuli, Tal. Umbergaon,
Dist: Valsad,
Gujarat - 396 105, INDIA
Tel.: +91 99099 94042
       +91 75748 39945

www.uniphos-envirotronic.com
gasdetection@uniphos-envirotronic.com