



## ALTAIR® 5

[ The High Performance Multi-Gas Detector ]



# ALTAIR<sup>®</sup> 5

## [ Exceptional safety meets exceptional flexibility ]

The new ALTAIR 5 once again redefines the expectations from a multigas detector. The newest member of the ALTAIR family of portable gas detectors is equipped with 6-gas capability, large high-resolution display, 18 pre-programmed languages and a 24 hour bump-test checkmark.

ALTAIR 5 is a high performance multigas detector with MotionAlert and InstantAlert, MSA's unique alarm features, and provides the outstanding durability and ease-of-use you would expect from the ALTAIR family.

On top of this ALTAIR 5 comes with an optional brilliant full-colour display. With the unique Wireless USB option gas readings and alarms can be transmitted to a central control station.

The optional GALAXY test and calibration system, low flow auto calibration and easily replaced sensors minimise the cost of ownership without compromising on performance. Never before has a gas detector offered so many intelligent features which increase workers' safety.

## [ Colour code ]

Discovering the benefits of the ALTAIR 5 is easy. Just follow the colour code through the four benefit categories on the following pages.

- Safety
- Simplicity
- Flexibility
- Cost reduction

## [ Applications ]

The versatile ALTAIR 5 is suitable for many applications in and beyond the following industries:



Oil & gas



Chemicals



Steel & iron



Fire service



Utilities



Waste water



Civil engineering



Industrial applications

# ALTAIR® 5

[ Even more performance ]



- MotionAlert and InstantAlert
- Triple alarm system: acoustic, visual, vibration



- Extensive toxic and infra-red sensor options
- Available with or without integral pump



- Three large buttons allow intuitive operation even when wearing gloves



- Audible alarm of 95 dB at 30 cm



- Durable rubberised housing
- Unit passes 6-foot drop test
- 3<sup>rd</sup> party IP 65 rated for water/dust ingress



- Up to 16-hour battery run time
- Available with rechargeable lithium-ion or alkaline battery



- Safety
- Simplicity
- Flexibility
- Cost reduction

# ALTAIR® 5

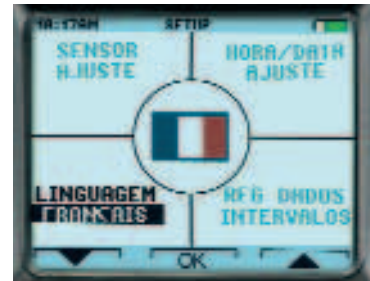
[ Information at a glance ]



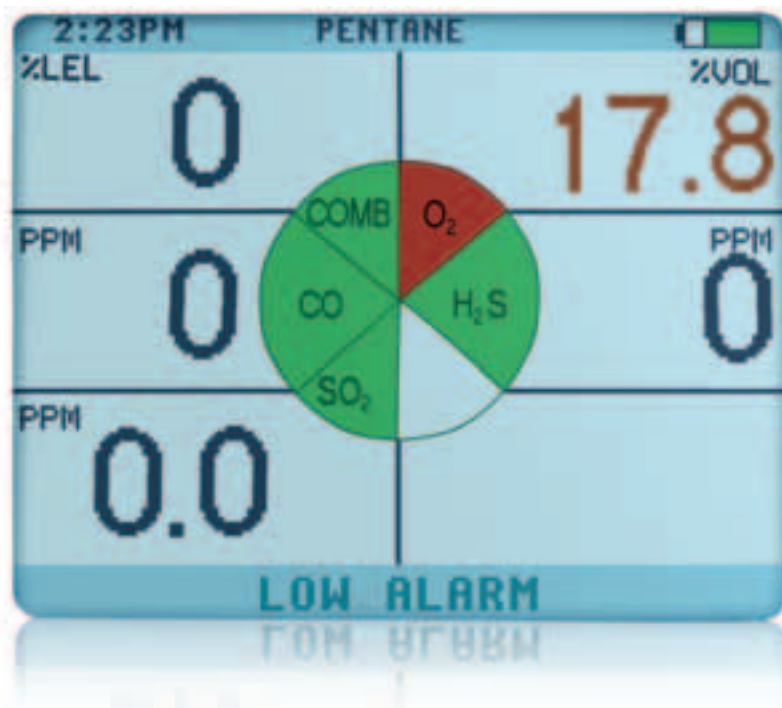
■ High resolution colour or monochrome display screen



■ 24 hour bump-test checkmark



■ 18 pre-programmed languages



■ GALAXY test system compatible



■ Real-time on-line monitoring with MSA Link Software



■ Logo display screen customisation



## Safety: paramount

### ■ MotionAlert

ALTAIR 5 has MotionAlert alarm as standard in case the user is overcome and requires assistance. When enabled, MotionAlert will activate a pre-alarm if the detector does not detect motion for 30 sec. If there is no motion detected after a further 10 sec the detector goes into MotionAlert alarm. This could prove to be invaluable in potentially life threatening situations.

### ■ InstantAlert

This unique feature gives users the ability to manually activate an alarm to attract the attention of anyone nearby. In situations where voice communication is difficult [e.g. when wearing masks] this standard feature further increases piece of mind for the user.



### ■ Triple alarm system

The triple alarm system fitted to the ALTAIR 5 effectively alert the user to potential danger. Super-bright LEDs provide a clear notification of any alarm condition. ALTAIR 5 also has a confidence safe LED that flashes every 15 sec to indicate the detector is working properly. The audible alarm is typically measured at 95 dB at 30 cm and a strong vibrating alarm is also a standard feature.

### ■ Wireless USB option

Wireless communication with MSA's alpha Personal Network means detector readings and alarms, including MotionAlert and InstantAlert, can be communicated to a central control station [alphaBASE]. This keeps the worker and those monitoring his situation in constant contact.

### ■ Colour or monochrome display options

Both displays allow the user to access gas concentrations and data at a glance, even in bright sunlight. To further simplify alarm status the colour display uses green for safe, orange for warning and red for alarm providing the user with unmistakable information.

### ■ Bump check indicator

ALTAIR 5 allows for a simple bump check, which will be recorded and displayed on the screen as a checkmark for 24 hours.

### ■ Robust design

ALTAIR 5 is IP 65 rated a test confirmed by a third party and is designed to withstand a 2 m drop test. The extra thick rubberised housing provides protection from accidental drops. Its tight seal ensures simple yet effective resistance to water and dust ingress.



## Simplicity: absolute

### ■ Easy to use

MSA has designed the ALTAIR 5 with the same easy-to-use logic as the ALTAIR 4 to ensure that minimal user training, interaction, or maintenance is required. Additionally, the ALTAIR 5 comes with 18 pre-programmed languages, further increasing its user acceptance all over the world.

### ■ Easy to read display

Both the colour and monochrome displays are straightforward and extremely easy to read. The large numeric display allows users to view gas concentration, alarm conditions, battery status, set points and peak reading with accuracy and confidence.



## Flexibility: unequalled

### ■ MSA Link Ready

The new multi-lingual MSA Link Software helps users get the most from their ALTAIR 5. With this class-leading software the user can quickly download and analyse the detector datalog. Users can also modify most functions including alarm and expected calibration values, industrial hygiene [STEL, TWA] function and many other operating and set-up parameters. All critical values are protected behind a user selectable password option.

### ■ Full datalogging as standard

A highly comprehensive datalogging facility is standard on ALTAIR 5. This allows the user to keep a record of day-to-day gas values detected at a configurable time interval along with any other events seen.

### ■ Pump or diffusion versions

ALTAIR 5 is available either as a diffusion detector or, if sampling is required, as a pumped version.

### ■ Infra-red sensor

MSA's high performance IR sensor provides rapid and accurate detection of CO<sub>2</sub> and of combustible gases at high concentrations.



## Cost reduction: invaluable

### ■ GALAXY

The GALAXY automated calibration and test system is a completely stand alone system that does not require a computer or network interface. Up to 10 GALAXY modules can be connected together allowing ALTAIR 5 to be simultaneously tested and calibrated. Over 1000 individual test records can be stored on an industry standard flash card. An optional wired connection is also available.



# ALTAIR® 5

## [ In connection with alpha Personal Network ]

The Wireless USB option enables the integration of ALTAIR 5 into the alpha Personal Network. This monitoring and alarm system consists of modular and wireless components that can be individually integrated to enhance your operation's safety and capability as needed. You can monitor those using breathing apparatus and portable gas detection equipment while sending information to a central control station. With the ALTAIR 5 gas readings and alarms can now be transmitted and displayed for the first time ever in real time. alpha Personal Network is the most comprehensive personal protective network available today.



### [ Applications ]

alpha Personal Network components can be used in several combinations for a wide variety of applications. Two popular uses are detailed below:

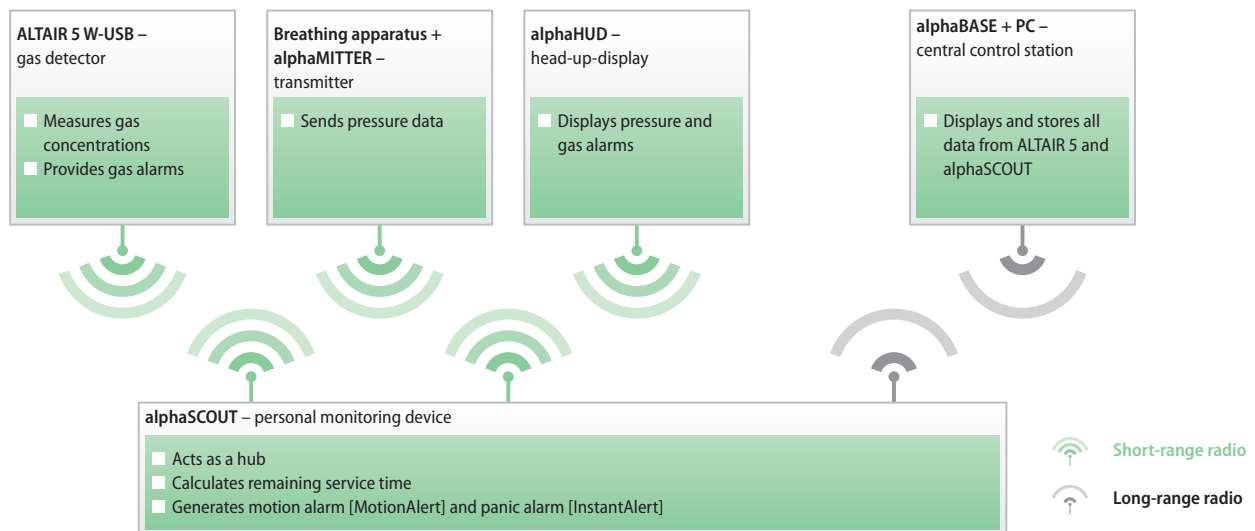
#### All breathing apparatus applications

alpha Personal Network allows the breathing apparatus wearer and those at the central control station [e.g. entry control officer] to have full telemetric monitoring of gas alarms, pressure and motion. This is done with a combination of ALTAIR 5, alphaSCOUT and alphaBASE. alphaBASE can display the wearers' environment and the air remaining in their cylinders, increasing the workers' safety. A simultaneous evacuation signal can be given to all wearers via the alphaBASE central control station. Alarm conditions can be clearly displayed to the worker via the optional alphaHUD head-up-display.

#### Lone worker

There are occasions where workers have to work at some distance from any colleagues which means any gas or motion alarms would not be heard by anyone except the wearer. The combination of ALTAIR 5 and alphaSCOUT can relay any gas or motion alarms back to alphaBASE to ensure the utmost wearer safety.

### [ System overview ]

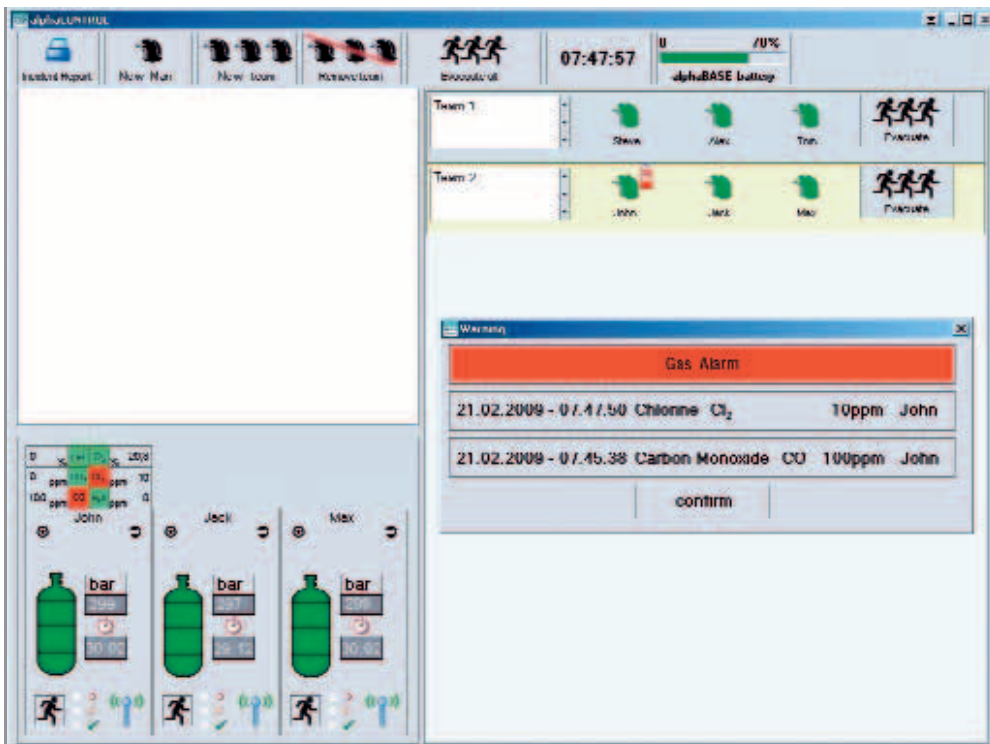


## [ alphaCONTROL software ]

alphaBASE works together with alphaCONTROL for automatic monitoring without the need for operator intervention. The real-time display shows: user, team assignments, cylinder pressure including time remaining and gas concentration. MotionAlert, InstantAlert, low cylinder pressure and gas alarms are highlighted by pop-up windows and audible signals. Complete incident data is also automatically logged and analysed, replacing time-consuming manual reports and maximising traceability.

## [ Unique signal pairing ]

The Wireless USB [W-USB] signal exchange at 2.4 GHz between ALTAIR 5 and alphaSCOUT creates a defined network around the person. When an alphaSCOUT makes contact with an ALTAIR 5, it establishes a unique signal pairing that cannot be confused by other devices in the vicinity. Nevertheless devices are quickly interchangeable as the pairing of an alphaSCOUT with another ALTAIR 5 is easily conducted.



The screenshot shows a gas alarm as seen on a PC using alphaCONTROL.

## [ Approvals ]

Directive 94/9/EC [ATEX]  
BVS 05, ATEX E 150, II 1G, EEx ia IIC T3/T4  
EN 50014, EN 50020, EN 50284,  $-30\text{ °C} \leq T_a \leq +60\text{ °C}$   
Directive 89/336/EC [EMC]

EN 61000-6-2, EN 61000-6-3  
Radio approvals according to Directive 1999/5/EC [R&TTE]  
EN 302208-1/-2, EN 300440-1, EN 301489-1/-3, EN 50371

For more information and ordering details please see  
alpha Personal Network leaflet 01-050.2.

## [ ALTAIR® 5 at a glance ]

	Features	Benefits
<b>Safety</b>	MotionAlert [motion alarm]	Triggers an alarm if the user remains motionless
	InstantAlert [panic alarm]	Alarm system can be triggered manually
	Triple alarm system	Clear visual, audible and vibration alarm notification
	Full graphical monochrome or high-resolution colour display	Clear, easy and concise readings at a glance
	24 hour bump-test checkmark	Confirms the detector recently passed a gas response check
	Missing sensor alarm	Helps prevent any mistakes after maintenance
	W-USB option allows telemetric readings at a central control station	Provides real-time information of user environment
	Rugged rubberised housing	Withstands 2 m drop
	IP 65 rated by a 3 <sup>rd</sup> party	Resists water and dust ingress
<b>Simplicity</b>	Ergonomic design with large rubberised buttons	Ensures easy operation, even with gloves
	MSA Link compatible	Detector can be configured and data downloaded via a PC with IR dongle; it can also display real-time on-line monitoring
	MSA Link Software in 18 pre-programmed languages	World-wide user acceptance
	Logs up to 12000 data points	User history easy to access
<b>Flexibility</b>	Extensive toxic and infra-red sensor options	Can be configured to suit most applications
	Choice of diffusion or pumped detectors	Meets requirements for sampling and pre-entry checks
	Multi language display	World-wide user acceptance
	Display can be customised with logo	Individual branding
<b>Cost reduction</b>	GALAXY test compatible	Quick and easy calibration
	Low flow auto calibration	Saves time and reduces costs by simultaneously calibrating all sensors
	Sensors are easy to replace	Reduces service costs

## [ Technical specifications ]

Sensor options	Range	Resolution	Infra-red sensor	Range	Resolution
LEL	0–100%	1%	CH <sub>4</sub>	0–100% Vol	1% Vol
O <sub>2</sub>	0–25% Vol	0.1% Vol	CH <sub>4</sub>	0–25% Vol	0.2% Vol
CO	0–999 ppm	1 ppm	CO <sub>2</sub>	0–5% Vol	0.01% Vol
H <sub>2</sub> S	0–200 ppm	1 ppm	CO <sub>2</sub>	0–10% Vol	0.01% Vol
HCN	0–30 ppm	0.1 ppm	CO <sub>2</sub>	0–50% Vol	0.1% Vol
NH <sub>3</sub>	0–100 ppm	0.5 ppm	C <sub>3</sub> H <sub>8</sub>	0–100% LEL	1% LEL
NO <sub>2</sub>	0–20 ppm	0.1 ppm	C <sub>3</sub> H <sub>8</sub>	0–25% Vol	0.1% Vol
PH <sub>3</sub>	0–5 ppm	0.1 ppm	C <sub>3</sub> H <sub>8</sub>	0–100% Vol	1% Vol
SO <sub>2</sub>	0–20 ppm	0.1 ppm	C <sub>4</sub> H <sub>10</sub>	0–100% LEL	1% LEL
Cl <sub>2</sub>	0–20 ppm	0.1 ppm	C <sub>4</sub> H <sub>10</sub>	0–25% Vol	0.1% Vol
ClO <sub>2</sub>	0–1 ppm	0.01 ppm	C <sub>4</sub> H <sub>10</sub>	0–100% Vol	1% Vol

Cl<sub>2</sub>, ClO<sub>2</sub>, NH<sub>3</sub> and infra-red sensors can only be used with pumped versions.  
Toxic channels are also available in mg/m<sup>3</sup> units.

Description	
<b>Weight</b>	454 g
<b>Dimensions [L x W x D]</b>	169 x 89 x 49 mm [rechargeable, pumped, with belt clip] 169 x 89 x 42 mm [rechargeable, diffusion, no belt clip]
<b>Audible alarm</b>	> 95 dB at 30 cm
<b>Visual alarm</b>	2 ultra-bright LEDs
<b>Vibrating alarm</b>	Standard
<b>MotionAlert</b>	Standard
<b>InstantAlert</b>	Standard
<b>Housing</b>	Rugged rubberised enclosure
<b>Display</b>	45 x 35 mm, colour or monochrome, back-lit
<b>Battery</b>	Rechargeable Li-Ion or Alkaline
<b>Battery run time</b>	Up to 15 hrs @ room temperature, depending on configuration
<b>Charging time</b>	5–6 hrs
<b>Operating temperature range</b>	–20 °C to +50 °C
<b>Humidity</b>	15–90% RH non-condensing
<b>Ingress protection</b>	IP 65 [3 <sup>rd</sup> party tested]
<b>Drop test</b>	2 metres
<b>Data log</b>	> 200 hrs @ 15 sec intervals
<b>Event log</b>	> 1000 events
<b>Warranty</b>	2 years under normal use conditions for CO/H <sub>2</sub> S/Comb/O <sub>2</sub>
<b>Approvals</b>	<b>Europe:</b> CE ATEX II 2G, EEx ia d IIC T4 –20 °C to +50 °C
	<b>USA:</b> UL Class 1, Division 1, ABCDEFG
	<b>Canada:</b> CSA C22.2 No. 157 Class I Div. 1 Groups ABCD
	<b>Australia:</b> ANZ Ex ia s I/IIC T4 [Zone 0] [pending]

## [ Ordering information ]

ALTAIR 5 can be configured for your individual requirements. Please contact your MSA representative for ordering details. Some of the popular configurations are listed below.

Ordering No.	Description
10103185	ALTAIR 5 [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S] Monochrome
10103184	ALTAIR 5 [LEL (CH <sub>4</sub> ), O <sub>2</sub> , CO, H <sub>2</sub> S] Monochrome
10103187	ALTAIR 5 [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S] Colour, Wireless USB
10103122	ALTAIR 5 w/pump [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S] Monochrome
10103152	ALTAIR 5 w/pump [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S] Colour
10103173	ALTAIR 5 w/pump [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S] Colour, Wireless USB
10103127	ALTAIR 5 w/pump [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S, SO <sub>2</sub> ] Monochrome
10103156	ALTAIR 5 w/pump [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S, SO <sub>2</sub> ] Colour
10103171	ALTAIR 5 w/pump [LEL (CH <sub>4</sub> ), O <sub>2</sub> , CO, H <sub>2</sub> S, Cl <sub>2</sub> , 0–10% CO <sub>2</sub> ] Colour, Wireless USB
10103124	ALTAIR 5 IR [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S, 0–10% CO <sub>2</sub> ] Monochrome
10103154	ALTAIR 5 IR [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S, 0–10% CO <sub>2</sub> ] Colour
10103175	ALTAIR 5 IR [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S, 0–10% CO <sub>2</sub> ] Colour, Wireless USB
10103150	ALTAIR 5 IR [LEL (CH <sub>4</sub> ), O <sub>2</sub> , CO, 0–100% Vol. CH <sub>4</sub> ] Monochrome
10103160	ALTAIR 5 IR [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S, NO <sub>2</sub> , 0–5% CO <sub>2</sub> ] Colour
10103179	ALTAIR 5 IR [LEL (Pen), O <sub>2</sub> , CO, H <sub>2</sub> S, NO <sub>2</sub> , 0–10% CO <sub>2</sub> ] Colour, Wireless USB
<b>Calibration</b>	
10053022	Gas can [58 l] [1.45% CH <sub>4</sub> , 15.0% O <sub>2</sub> , 60 ppm CO, 20 ppm H <sub>2</sub> S]
10102853	Gas can [58 l] [1.45% CH <sub>4</sub> , 15.0% O <sub>2</sub> , 60 ppm CO, 20 ppm H <sub>2</sub> S, 2.5% CO <sub>2</sub> ]
10011938	Gas can [34 l] 5 ppm SO <sub>2</sub> in N <sub>2</sub>
<b>Accessories</b>	
10099648	Leather holster
10103189	Sampling line, 3 m, PU conductive
10103191	Sampling probe, flexible 30 cm
10082834	JetEye IR Adapter with USB Connector
478359	Pressure reduction valve 0.25 l/min
10088099	MSA Link Software CD-ROM
<b>GALAXY</b>	
<b>[ALTAIR 5 IR &amp; w/pump]</b>	
10090604	Basic system [includes power supply]
10090606	Standard system [includes power supply & regulator]
10090605	Standard system + charging + cylinder holder
10090595	Smart system [includes power supply, regulator & SD card]
10090591	Smart system + charging + cylinder holder
10090956	Portable system [includes battery pack & regulator]
10090957	Portable system + SD card + cylinder holder
10090610	Wired network system [includes regulator & wired ethernet access]
10090609	Wired network system + charging + cylinder holder

ALTAIR 5 comes complete with rechargeable battery pack, charger, calibration cap and tubing.  
The full range of accessories, including calibration gases is available on request.



Thank you for reading this data sheet.

For pricing or for further information, please contact us at our UK Office, using the details below.



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Please note - Product designs and specifications are subject to change without notice. The user is responsible for determining the suitability of this product.