









## EXSH1 EX SPOT HOUSING

HAZARDOUS AREA ENCLOSURE FOR EX SPOT PYROMETER

# AMETEK LAND HAS BEEN MANUFACTURING PRECISION MEASURING EQUIPMENT SINCE 1947.

We are specialists in non-contact temperature measurement and combustion monitoring with applications across diverse industries such as steel and glass making, power generation and cement manufacture.

As part of AMETEK Process & Analytical Instruments Division since 2006, our customers benefit from our worldwide AMETEK sales and service team.

## WITH INCREASING DEMAND FOR PRODUCTS TO WORK IN HAZARDOUS CONDITIONS, OUR NON CONTACT INFRARED PYROMETERS PLAY AN IMPORTANT ROLE IN MODERN INDUSTRIAL PROCESSING.

The new EXSH1 flame-proof housing allows EX SPOT pyrometers to be used in hazardous areas. Its high specification means that it is suitable for use in almost any application in the harshest of environmental conditions. Multiple certifications mean that a common specification can be used for worldwide applications, greatly simplifying the task of specifying and quoting the product.

The enclosure has a certified temperature range of -40 to +70  $^{\circ}$ C (-40 to 158  $^{\circ}$ F).

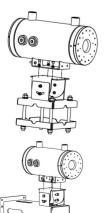
Ingress protection to IP66 and IP68 means that it can be exposed to dust, water immersion and high-pressure water jets. The enclosure is manufactured from 316 / 316L stainless steel and is highly resistant to corrosion.

#### **EXSH1 ACCESSORIES**





**SUN SHIELD** - For use in outdoor applications where sunlight could affect application readings.



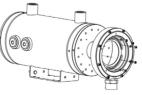
### MOUNTING BRACKETS, ALL WITH PAN & TILT ADJUSTMENT - Options include:

- Wall mount
- Pole mount
- Handrail mount
- Mounting stand for floor mounting



## **SPOOLPIECE ADAPTOR**

- Connects flange mount purge to DN50 PN10 or PN16 flange.



### **PURGES** - Options include:

- Flange mount
- Freestanding



PAN AND TILT, HEIGHT ADJUSTABLE CAMERA MOUNTING STAND -For vertical mounting applications.



Model	Measuring Range	Single - Multi	Wavelength µm
Ex M100	550 to 1800 °C / 1022 to 3272 °F 700 to 3500 °C / 1292 to 6332 °F	Mono	1.0 μm
Ex M160	250 to 1600 °C / 482 to 2912 °F	Mono	1.6 µm
Ex M210	50 to 1100 °C / 122 to 2012 °F	Mono	2.3 μm
Ex R100	400 to 1800 °C / 752 to 3272 °F 700 to 3500 °C / 1292 to 6332 °F	Multi - Ratio & Mono	1.0 & 1.2 μm
Ex R160	250 to 1600 °C / 482 to 2912 °F	Multi - Ratio & Mono	1.0 & 1.5 μm
Ex R210	125 to 1100 °C / 257 to 2012 °F	Multi - Ratio & Mono	2.1 & 2.4 μm
EX GS	200 to 1000 °C / 392 to 1832 °F	Application specific for galvanizing and galvannealing	

Refer to SPOT brochure for full specifications

# FEATURES & BENEFITS

## HAZARDOUS INSTALLATION -

Ideal for installation in the harshest environments including those where a high probability of explosive mixtures may be present.

**WIDE TEMPERATURE RANGE** - The system can be installed in a vast range of areas where temperature may affect unprotected products.

SUITABLE FOR GAS AND DUST HAZARDS - The system is certified for use in areas with dust and gas hazards.

## HIGH LEVELS OF PROTECTION -

Extremely high degree of ingress protection, and highly resistant to corrosion.

#### **SAFETY ENCLOSURE**

- The enclosure does not require an internal purge air for safety.

## **GRIDLESS DESIGN-**

The window does not require a protective grid, allowing an unobstructed field of view.

## **ACCESSORIES-** A

range of mounting accessories available to suit many industrial applications.

## TYPICAL APPLICATIONS

Continuous annealing lines

Semiconductor growth

**HPI** and chemical applications

## **EX CERTIFICATION**







Certification	Zone	Marking	Certified Ambient Temperature	Functional Ambient Temperature
ATEX, IECEx	1 & 21	II 2 (1) G D Ex db [op is Ga] IIC T6 Gb Ex tb [op is Da] IIIC T85C Db	Ex db [op is Ga] IIC T6 Gb $Ta = -40 \degree C \text{ to } +70 \degree C$ $To +70 \degree C  (Water or Air or Ai$	-40 °C to +50 °C (No cooling) To +70 °C (Water or Air cooling)
and UKEX	2 & 22	II 3 (1) G D  Ex db [op is Ga] IIC T6T3 Gc  Ex tc [op is Da] IIIC T85160 C Dc	Ta= -40 °C to +160 °C	-40 °C to +50 °C (No cooling) To +125 °C (Air cooled) To +160 °C (Water cooled)

Note: The maximum temperature is limited by the function of the SPOT. The enclosure remains safe at a higher temperature as shown in the markings.



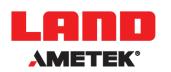
# **SPECIFICATIONS**

Compatibility:	Ex SPOT M100, Ex SPOT M160, Ex SPOT M210, Ex SPOT R100,		
	Ex SPOT R160, Ex SPOT R210, Ex SPOT GS		
	<b>Note:</b> Existing SPOT pyrometers cannot be retrofitted to the EXSH1		
	housing		
Dimensions:	Ø168 mm, 356 mm Length		
Power Rating:	19 – 26.4 Vdc, 2.3 A Max		
Weight:	20 kg maximum		
Material:	Stainless steel 316 / 316L, sapphire window		
Certified Ambient Temperature:	ATEX, IECEx, UKEX (Safety)		
	7 1 21 2 22		
	Zones 1, 21, 2, 22		
	-40 to +70 °C (-40 to 158 °F)		
Functional Ambient Temperature:	Zone 1, 21		
	-40 to +50 °C (No cooling)		
	To +70 °C (Water or Air cooling)		
	Zone 2, 22		
	-40 to +50 °C (No cooling)		
	To +125 °C (Air cooled)		
	To +160 °C (Water cooled)		
Environmental Rating:	IP66 / IP68 (2 m, 24 hr)		
Compliance:	EN IEC 60079-0, IEC 60079-1, EN 60079-1, IEC 60079-31, EN 60079-31 IEC 61010-1, (EMC) EN 61326-1		
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www.ametek-land.com



land.enquiry@ametek.com



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