

# Ultima XL/XT Series Gas Monitors

Economical continuous gas monitors with HART Field Communications Protocol

Ultima XL/XT Series Gas Monitors offer an affordable choice for combustible gas, toxic gas and oxygen-deficiency detection and monitoring, while retaining key features of MSA's Ultima X Series Gas Monitors. HART Field Communications Protocol running over 4-20 mA output provides convenient setup, calibration and diagnostics. Hand-held HART communicator, controller or laptop provides display; local calibration employs LEDs and pushbuttons.

### Three Models:

#### **Ultima XL Monitor:**

- Explosion-proof stainless steel
- 316 stainless steel
- Multiple-entry mounting enclosure
- Intrinsically-safe HART port

#### **Ultima XT Monitor:**

- Water- and corrosion-resistant, all-purpose, polycarbonate
- NEMA 4X rating
- Lightweight (only 1.75 lbs/0.79 kg)
- HART port

#### **Ultima XL IR Combustible Gas Monitor:**

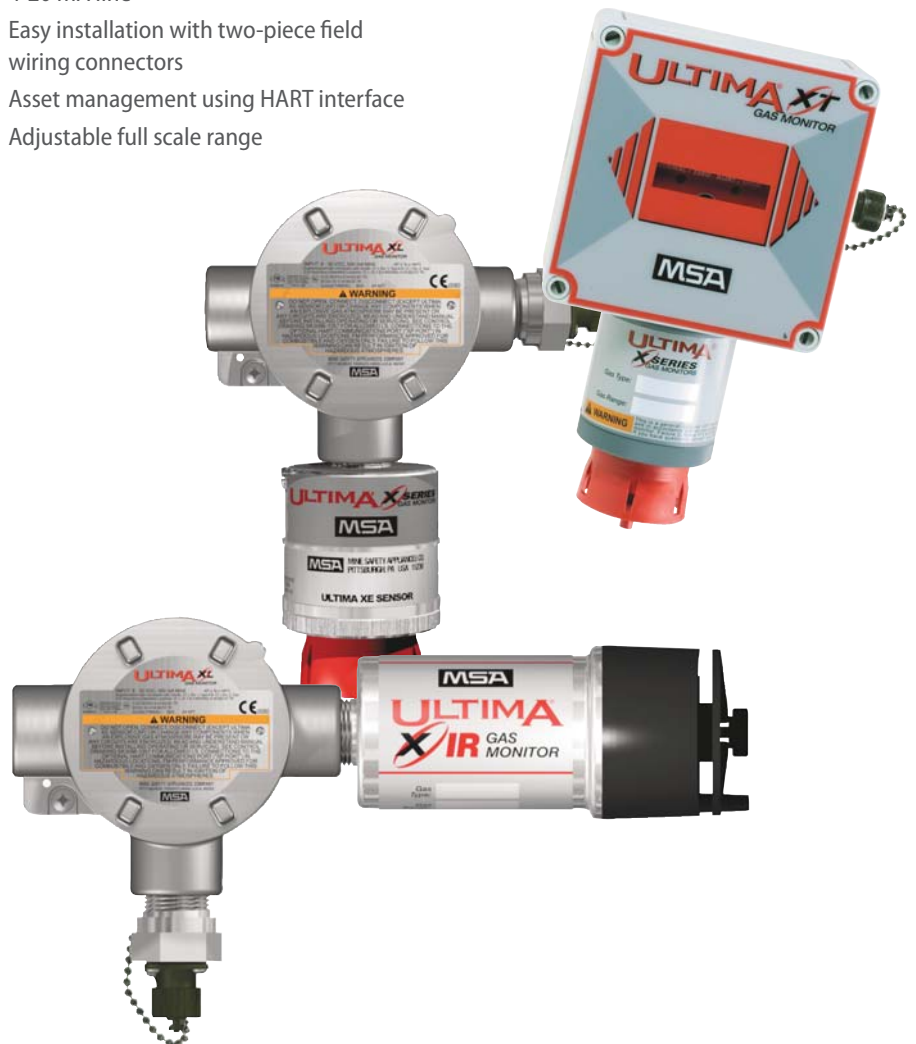
- Explosion-proof stainless steel, infrared gas detector
- 316 stainless steel
- Multiple-entry mounting enclosure
- Intrinsically-safe HART port
- Fast response time
- Operation based on dual-wavelength, heated-optics technology, providing definitive compensation for temperature, humidity and aging effects
- IR technology offers excellent long-term stability, eliminating the need for frequent calibrations
- Sintered-disk-free design for optimum performance in harsh environments
- No-gas calibration; zero adjustment is all that is required for full calibration
- IP66-rated

### Features

- Sensor disconnect-under-power without declassifying hazardous area
- Interchangeable **smart** sensors; no reconfiguration required
- One circuit board for increased reliability and easier serviceability
- Calibrate, setup or perform diagnostics with HART from any point along 4-20 mA line
- Easy installation with two-piece field wiring connectors
- Asset management using HART interface
- Adjustable full scale range

### Calibration Options

- Internal pushbutton and LEDs provide local intrusive calibration
- Compatible with handheld communicator, host DCS or laptop



Specifications for Ultima XL, Ultima XT and Ultima XL IR Gas Monitors		
<b>GAS TYPES</b>	XL, XT XLIR	Combustibles, oxygen and toxics Combustibles; 0-100% LEL
<b>TEMPERATURE RANGE</b>	-40°F to 140°F (-40°C to 60°C) (typical range for some gases may differ)	
<b>DRIFT</b>		
ZERO DRIFT	XL, XT XLIR	<5%/year, typical ±2%/year, typical
SPAN DRIFT	XL, XT	<10%/year, typical
<b>NOISE</b>	<1% full scale	
<b>ACCURACY</b>		
REPEATABILITY	XL, XT, XLIR	±1% full scale or 2 ppm, typical
LINERITY	XL, XT XLIR	±2% full scale or 2 ppm, (O <sub>2</sub> , CO) ±2% full scale (≤50% LEL)
	XL, XT	±3% full scale (<50% LEL combustibles)
	XL,XT,XLIR	±5% full scale (>50% LEL combustibles)
	XL,XT	±10% full scale or 2 ppm, (non-CO toxics)
<b>RESPONSE TIMES</b>		
T20 O <sub>2</sub> & TOXICS	XL, XT	<12 seconds (typically 6 seconds)
T50 O <sub>2</sub> & TOXICS	XL, XT	<30 seconds (typically 12 seconds)
T50 COMBUSTIBLE	XL, XT	<10 seconds
T90 COMBUSTIBLE	XL, XT	<30 seconds
T90 COMBUSTIBLE	XLIR	<2 seconds
<b>HUMIDITY</b>	XL, XT XLIR	15%-95% RH, non-condensing 0%-95% RH, non-condensing
<b>SENSOR LIFE</b>		
OXYGEN & TOXICS	XL, XT	2 years typical
COMBUSTIBLE	XL, XT	3 years typical
COMBUSTIBLE	XLIR	5 years typical
WARRANTY	XL, XT XLIR XLIR	1 year 2 years 10 years (IR source only)
<b>POWER INPUT</b>	XL, XT XL, XT XLIR	10-30 VDC (oxygen and toxics) 10-30 VDC @ 450 mA maximum (combustibles) 10-30 VDC @ 750 mA maximum (combustibles)
<b>WIRING REQUIREMENTS</b>		
COMBUSTIBLE	XL, XT, XLIR	3-wire; LEDs and no relays
OXYGEN & TOXICS	XL, XT	3-wire; LEDs and no relays
<b>SIGNAL OUTPUT</b>	XL, XT, XLIR	4-20 mA 3-wire current source, HART
<b>HOUSING ENTRIES</b>	XL, XLIR XT	3 conduit entries, 3/8" NPT or 25 mm 2 entries
<b>PHYSICAL</b>	XL XT XLIR	316 stainless steel; 7.7 lbs (3.5 kg); 7.1" W x 4.1" D x 8.8" L (180 x 103 x 224 mm) Polycarbonate; 1.75 lbs (0.79 kg); 6.2" W x 3.0" D x 9.4" L (157 x 76 x 239 mm) 316 stainless steel; 8.0 lbs (3.6 kg); 11.4" W x 4.1" D x 6.3" L (288 x 104 x 159 mm)
<b>APPROVAL RATINGS</b>	XL  EUROPE INT'L	USA/Canada Class I, Div. 1 & 2, Groups A, B, C, & D Class I, Zone 1 & 2, Groups IIC, IIB & IIA, T6 Type 4X, IP 66 II 2G, 3G, EEx d nA [ib] IIC T6, IP 66 IEC EX scheme, Ex d nA [ib] IIC T6, IP 66