Honeywell

XNX™ SPECIFICATIONS

Universal Transmitter
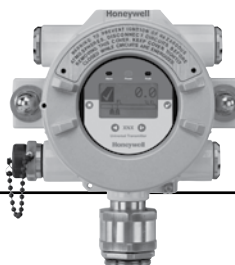
General Specifications	
Material	LM25 Aluminum, painted (SS316 painted optional)
Cable Entries	5 conduits/cable entries – (2 right, 2 left, 1 bottom) Available in ¾" NPT, or M25
Termination	Cage Clamp pluggable Terminal Blocks with retaining screws, 0.5 to 2.5mm (12-28 AWG)
Mounting	Integral cast mounting tabs provide secure mounting to surfaces and channel. Can be mounted to 2 to 6 inch pipe or ceiling with corresponding mounting kit (optional)
User interface	Standard Custom Backlit LCD. 2.5" High Resolution DOT Matrix Display. Discrete Alarm and Status indication. Reliable Non-Intrusive 4 button interface magnetic wand access.
Signal	0-22mA analog current loop output with HART (version 6) compatible standard. Optional relay or Modbus.

Environmental	
Temperature	-40°C to +65°C / -40°F to +150°F (sensor dependent)
Humidity	20 to 90% RH non-condensing
IP Rating	NEMA 4X IP66

Options	
	Relay Option 3 - SPDT (2 Alarm, 1 Fault) Relays; 250 VAC 5A, 24VDC 5A (Resistive) with External Reset Input or Modbus option: RTU protocol; selectable Baud Rate
	Optional HART with IS Port

Operating Voltage	
	18-24 VDC Nominal (EC & mV units 16-32 VDC; IR units 18-32 VDC (Class 2 supply required)

Power Consumption	
	XNX used with: electrochemical sensor: 6.2 watts; millivolt (catalytic bead or IR cell): 6.5 watts; point Infrared sensor (Searchpoint Optima): 9.7 watts; open-path Infrared (Searchline Excel): 13.2 watts

Hazardous Area Approvals (Transmitter/Sensor Dependent)	
	UL, cUL classified: UL 1203 and 913 Seventh edition; CSA, CSA 22.2 No. 30, CSA 22.2 No. 157 Class 1, Division 1, Groups B, C, D / Class 1, Zone 1, Groups IIB + H2 T4 Tamb -40c to 65c DEMKO* IEC 60079-0, 4th ED; IEC 60079-15th Ed; IEC 60079-11 5th Ed. NCC INMETRO* Type Approval: EX [ia]d IIB + H2 T4 Tamb -40c to 65c

Performance Approvals (Sensor Dependent)	
	Flammable gases: CSA 22.2 No. 152, FM* 6310, 6320, DEKRA/EXAM* IEC/EN 60079-29-1, EN 61779-4:2000 Toxic and Oxygen
	FM* ISA 92.0.01; DEKRA/EXAM* EN 45544:2000, EN 50104: 1999
	Functional Safety: TUV EN 61508 SIL 2 Component Certification

Display Module & User Interface (Standard)		
Display Type	Backlit LCD	
Information Displayed showing	Base Information:	Gas Reading; Gas Name and Units of measurement; Fault and Alarm Status; Large Numeric concentration or LEL display; Bar graph current reading, set points and full scale.
	Fault/Alarm and Operating Status Indication:	Security settings allow multi level operator access for set-up, configuration and calibration Event history stores Time and Date of all Alarm, Diagnostic, Configuration events
Interface	Magnetic wand with terminal screwdriver (supplied each unit)	

4-20mA & HART (Standard Supply)	
Description	Fully configurable isolated 4-20mA & HART output module providing current sink, current source and isolated modes of operation. (supports HART 6.0 protocol)
Non-intrusive Interface	Optional local IS port to enable HOT connection of a HART handheld configurator
Operating Modes	Current sink / Current source / Isolated current sink /Conventional or with HART data
Output Range	0 to 22mA
4-20mA Signal Accuracy	+/- 1% FS
Max loop resistance	600 Ohms at 24Vdc loop supply
Functions Supported via HART	Gas Reading Gas Name and Units of measurement 4-20mA signal level General/Device Information Installation Configuration Forcing of 4-20mA output Detailed Sensor Information Including: Optical Signal Level Dynamic Reserve (Excel Only) Raw reading 24V supply voltage Temperature RTC (Excel Only) Calibration and Configuration status Detailed Fault and Warning Information Fault and Alarm History Zero Calibration

* pending

Local IS HART Port (Optional)	
Description	Provides externally accessible IS connections to the XNX transmitter to enable HOT connection of HC275/375 HART or equivalent hand held configurator.
Installation	Fitted to one of the cable entries on the XNX transmitter.
Environmental Protection	Terminals protected by cover to IP 66 when not in use

Relay Module (Optional)		
Description	Provides three fully user configurable relay outputs that can be switched based on the current gas level and/or status of the transmitter. Provides 2 x SPCO alarm and 1 x SPCO fault relays. Single Pole Double Throw SPDT. Option PCB Factory installed in display module.	
Installation	Fitted into housing base either at the factory or in the field by qualified service engineer.	
Rating	Maximum: 240 VAC, 5A (non inductive load) / 24 VDC 5A CES	Minimum: 5V, 10mA (non inductive load)
Electrical Connections	Fault: Common, Normally Open, Normally Closed Alarm 1: Common, Normally Open, Normally Closed Alarm 2: Common, Normally Open, Normally Closed	
Configuration	Default	Configurable Options
	Fault Relay: Normally energized Non latching Signal inhibit as fault	Fault Relay: Normally energized / normally de-energized None Enable/disable
	Alarm 1 / 2 Relays: Normally de-energized Non latching Alarm rising on gas reading Alarm level 20% and 40% of scale Hysteresis of 2% of scale	A1 / A2 Relays: Normally energized / de-energized Latching / non latching Alarm on rising / falling Alarm level 10% to 90% of full scale
Re-setting of Latched Relays	Easily accessible interface on display (if used) or via HART interface (local or remote)	
Note	Use of the Relay Module or 'Other' Communications Module (E.g. Foundation Fieldbus) is mutually exclusive. However, relay function may be used in conjunction with standard communication output i.e. 4-20mA with HART.	
Relay Specific Functions via HART Interface	Relay status information / Reset of latched conditions / Configuration of relays Forcing of relay state Reset through non intrusive User Interface. Remote Switch closure using Remote Reset input Remotely through HART	

Modbus RTU Module (Optional)		
Description	The Modbus output module provides an Isolated RS485 output to enable the connection of the XNX transmitter to a multi-drop Modbus network	
Installation	Fitted into housing base either at the factory or in the field by qualified service engineer.	
Connections	RS485+, RS485-, Drain	
Physical Layer	Isolated RS485, 1200 to 19.2K Baud	
Maximum No. of Nodes	254 XNX compatible transmitters only	
Protocol	Modbus RTU	
Functions Supported	As per Foundation Fieldbus Module (Optional) - see above **Foundation Fieldbus Module (Optional)**	
Description	Foundation Fieldbus compliant digital communications interface enables connection of the XNX transmitter to a multi-drop Foundation Fieldbus H1 network.	
Installation	Fitted into housing base either at the factory or in the field by qualified service engineer.	
Connections	Sig+, Sig- and Screen	
Physical Layer	Conforms to IEC 1158-2 and ISA 50.02, 31.25Kbits/s	
Maximum No. of Nodes	32	
Functions Supported	Gas Reading Gas Name and Units of measurement Instrument status (OK, warning, fault, over-range) General/Device Information Remote zero and span calibration (detector dependent)	Detailed Sensor Information Including: Optical Signal Level Dynamic Reserve (Excel Only) Raw reading 24V supply voltage Temperature RTC (Excel Only) Calibration and Configuration status Detailed Fault and Warning Information: Fault and Alarm History Zero Calibration

Further information is available upon request.

* Not available at time of publication. Please call your Honeywell Analytics sales person.

XNX™ is a registered trademark of Honeywell International.

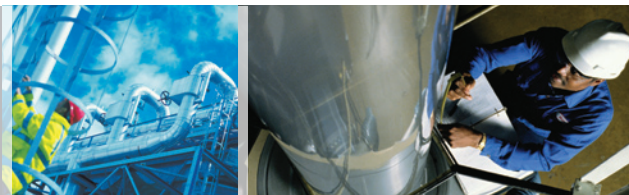HART® is a registered trademark of the HART Communication Foundation.

MODBUS® is a registered trademark of Schneider Automation Inc.

Foundation™ is a trademark of Fieldbus Foundation.

A universal transmitter for toxic, oxygen and combustible gas detection compatible with all Honeywell gas sensing technologies

XNX Universal Transmitter

High performance
- Flammable gas detection 0 to 100% LFL/LEL
- Point IR with heated optics provides immunity to poisoning and no hidden faults
- Open-path IR flammable gas detection in LEL-m measurement
- Electrochemical cell offers toxic gas detection in ppm
- IR cell provides CO_2 and combustible gas monitoring
- Robust and reliable operation in explosive areas and harsh environments

Flexible Operation
- 3 versions - supports (Catalytic Bead and IR Cell), Electrochemical Cell and IR (point and open-path) gas detection
- Multi-Purpose Detector (MPD) with field serviceable mV, Catalytic bead and IR Cell capability
- 4-20mA with HART® as standard
- HART Enhanced Device Description Language (EDDL) software*
- Multiple communications options include up to 3 relays, MODBUS® and FOUNDATION® H1 Fieldbus
- Optional local IS port for handheld HART configurator

Easy to Use
- Large, backlit, easy-to-view LCD display offers multi-sensory indicators (visual icons, colored buttons, text, etc.) to display gas and sensor readings
- User interface supported by 8 selectable languages (English, Spanish, German, Italian, Portuguese, French, Russian, Chinese)
- Self-test and fault indication features
- Non-intrusive, one-man operation
- Quick calibration with auto-inhibit

Easy to Install
- 3 or 4 wire operation, source, sink or isolated
- Simple plug-in sensors and replaceable cells
- NEMA 4X IP66 rated for rugged indoor/outdoor use
- Five conduit entries for ease of installation

Cost Effective
- Minimal training required
- One-man operation
- Plug-in sensor replacement
- All necessary accessories included

The XNX Universal Transmitter, now with HART EDDL, marks a new turn in gas detection from Honeywell Analytics. It supports the widest range of sensors on a common platform and offers a modular choice of inputs and outputs.

XNX is designed for flexible integration, simple installation, user-friendly operation and straight-forward maintenance. It is ideal for use with a range of gas monitoring controllers or industry standard PLCs. The introduction of our HART Enhanced Device Descriptor Language (EDDL) software provides users with an at-a-glance indication of the health of their gas detectors in the field.

Bringing together the best solutions in gas detection

Electrochemical
- Proven electrochemical sensing technology
- Surecell™ electrochemical cells are ideal for hot and humid environments
- Long life sensing cells (typical >2 years)
- Patented 'Reflex' sensing element verification diagnostics
- Sensor recognition software auto configures transmitter
- Plug and play factory configured sensors
- Intrinsically safe sensor connection permits hot swap, reducing down time

Catalytic Bead
- Supports Honeywell Analytics 705, 705HT, Sensepoint, Sensepoint HT and MPD sensors
- Fast response to wide range of hydrocarbons and flammables

Infrared (Open Path IR, Point IR, IR Cell)
- Supports Honeywell Analytics Searchline Excel, Searchpoint Optima Plus
- Failsafe operation
- Fast speed of response
- Reduced routine maintenance
- Immune to catalytic poisons
- Long operating life
- Works in inert atmospheres
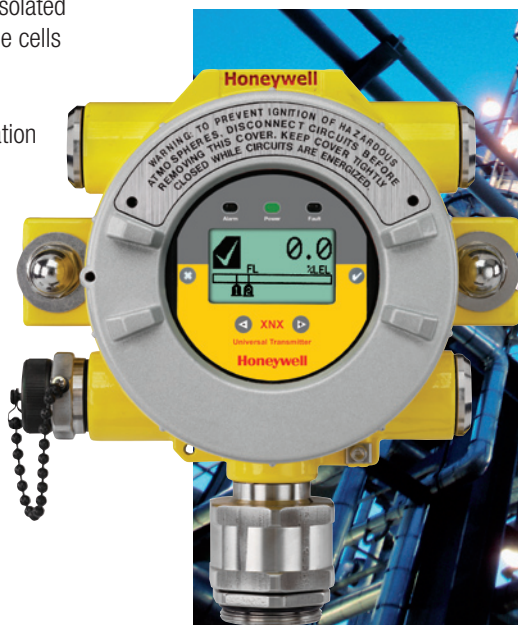
Universal Gas Sensing and Communications Platform

The XNX's powerful advanced communications module – including our new HART EDDL software – adds increased efficiency, functionality and flexibility to a gas detection network.

XNX offers a variety of communication options to suit your industrial operation's unique and changing needs. HART communication comes standard on the XNX — with optional EDDL — along with optional Modbus, Foundation Fieldbus or relays. It can interface with a PLC and a host of other protocol compatible devices found in industrial applications.
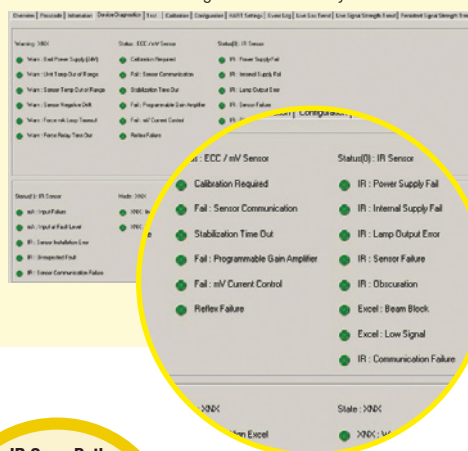
Unique to the XNX and Honeywell Analytics is our new HART EDDL software, which allows you to manage all of your HART devices' advanced diagnostic data right from your PLC.

With the XNX, you are freed from the need to add extra controllers, junction boxes, relays, monitors and other equipment accessories. The integration of our EDDL software also enables the XNX to work with a number of third-party distributed control systems (DCS).
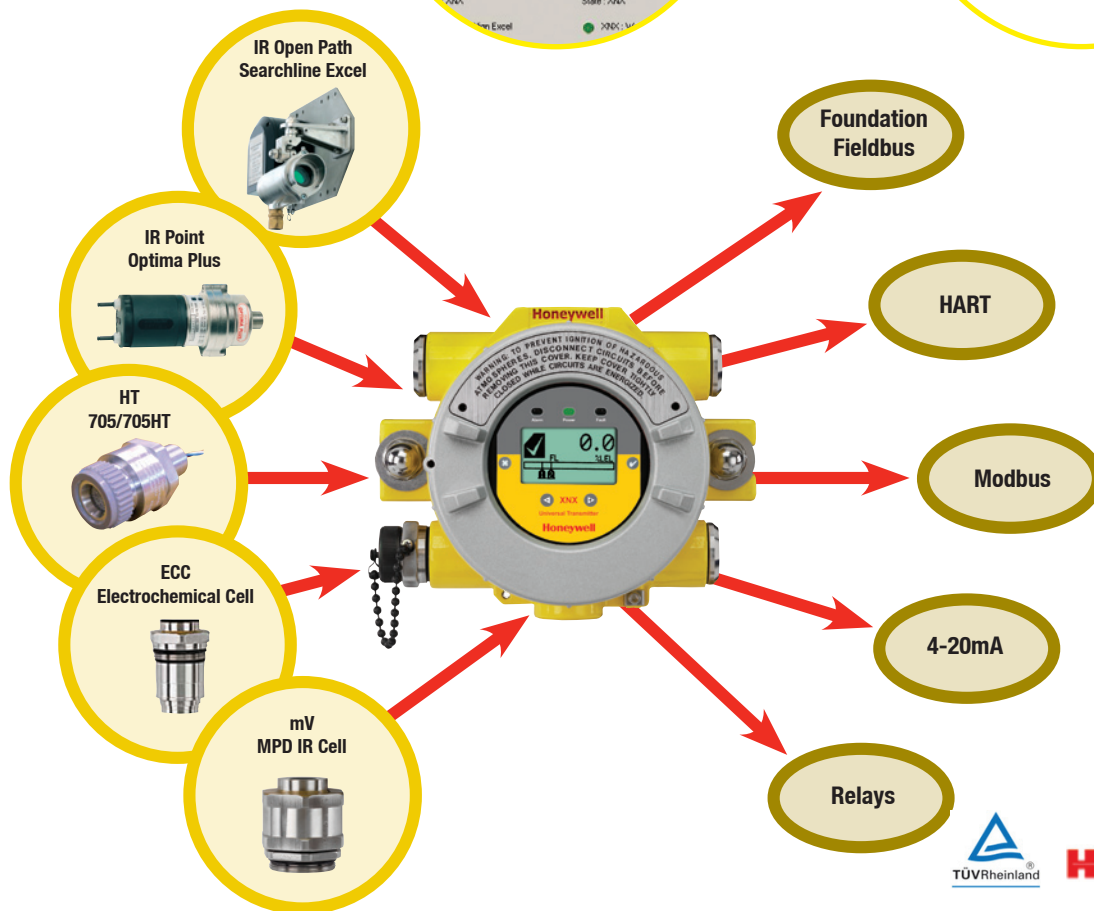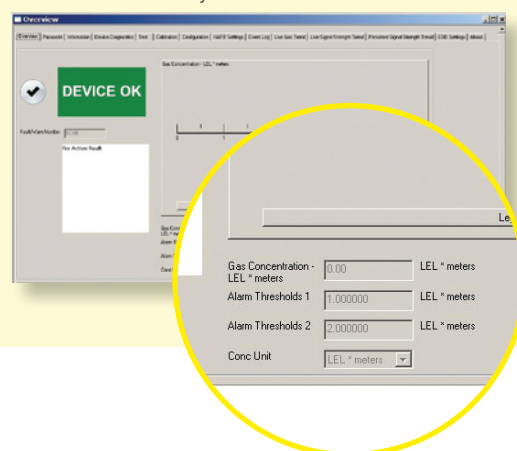
EDDL Software

Honeywell Analytics' EDDL software allows you to get real-time advanced diagnostics without having to custom-program your PLC/DCS. It allows you to manage your gas detection data from your PLC/DCS and generates a visual depiction of the XNX's advanced diagnostics, including protective maintenance, live gas trending, event history and more.

Review your HART device's advanced diagnostic data at any time.

With EDDL, you can check the real-time status of your HART device.

IR Open Path Searchline Excel

IR Point Optima Plus

HT 705/705HT

ECC Electrochemical Cell

mV MPD IR Cell

Foundation Fieldbus

HART

Modbus

4-20mA

Relays

TÜVRheinland

HART

FOUNDATION

Honeywell Analytics Lines of Business

Commercial

Gas detection from standalone units to fully engineered, multi-point systems, all offering cost-effective regulatory compliance

» Applications: parking structures, chillers, mechanical rooms, office towers, commercial buildings, shopping centers, swimming pools, golf courses, schools and universities, laboratories

Industrial

Renowned Sieger and Manning gas detection systems with advanced electrochemical, infrared and open path sensing technologies

» Applications: oil and gas, cold storage, water/wastewater treatment, chemicals, engine rooms, plastics and fibers, agriculture, printing and light industrial

Portables

Single or multi-gas Lumidor and other premium detectors with compact, lightweight designs ranging from simple alarm only units to advanced, fully configurable and serviceable instruments

» Applications: underground utility and electricity ducts, boiler rooms, post-fire sites, sewers, industrial plants, industrial hygiene, first responder teams, remote fleets

High Tech/Government

A complete portfolio of gas and chemical detection instrumentation including infrared spectroscopy (MST) with no cross interference, to Chemcassette paper-based solutions (MDA Scientific) offering detection down to parts per billion

» Applications: semiconductor manufacturing and nanotechnology, aerospace propulsion and safety, specialty chemicals industry, research laboratories, emergency response

Technical Services

24/7 global network includes post-sales service and Systems Integration teams

» Emergency call out, service contracts, on/off-site repair, training and commissioning
» Complete range of spares, consumables and accessories

Find out more
www.honeywellanalytics.com

Contact Honeywell Analytics:

Americas
Honeywell Analytics, Inc.
405 Barclay Blvd.
Lincolnshire, IL 60069
USA
Tel: 847.955.8200
Toll-free: 800.538.0363
Fax: 847.955.8210
detectgas@honeywell.com

Technical Services
ha.service@honeywell.com

www.honeywell.com

Europe, Middle East, Africa
Life Safety Distribution AG
Weiherallee 11a
CH-8610 Uster
Switzerland
Tel: +41 (0)44.943.4300
Fax: +41 (0)44.943.4398
gasdetection@honeywell.com

Asia Pacific
Honeywell Analytics, Asia Pacific
#508, Kolon Science Valley (1)
187-10 Guro-Dong, Guro-Gu
Seoul, 152-050
Korea
Tel: +82 (0)2.2025.0307
Fax: +82 (0)2.2025.0329
analytics.ap@honeywell.com

Honeywell