



CUSTOMER APPLICATION INFORMATION FORM

This information is required to properly configure an analyzer based on your specifications. Return completed form to sales@h2scan.com

1.0: CUSTOMER INFORMATION				H2scan USE ONLY	
Name		Date		CAI #	
Title				Date	
Company				Quote #	
Address		City		SEI #	
State/Province		Country		SO #	
Postal Code		End Customer		Cust PO #	
Phone		Application			
E-mail Address		Project ID/Ref #			

2.0: PROCESS INFORMATION			
2.1: Gas Conditions at the ANALYZER			
Pressure	Gas Temperature	Flow Rate	Dew Point
	(min) to (max)	(min) to (max)	
<i>H2scan recommends a constant pressure of 1 atm absolute at the analyzer for best results. See NOTE 1 below.</i>	<i>Maximum 60 °C at analyzer.</i>	<i>H2scan recommends 1 SLPM at the analyzer. For best results the flow rate should be between 0.1 – 10 SLPM.</i>	<i>Must be non-condensing. See NOTE 4 below.</i>
2.2: Environmental Conditions			
Analyzer Location:	Ambient Temperature	Analyzer Distance from Sample Tap:	
If Other, Please Explain:	(min) to (max)	Heat Traced Lines?	
2.3: Area Classification			

3.0: GAS STREAM DETAILS					
It is critical that ALL components present in the gas mixture are listed below. Any non-listed gases may affect the performance of the analyzer. If the gas composition is different from the specified range(s) below, analyzer performance may be impacted. Contact H2scan with an updated CAI.					
3.1: Background Gas: <input type="checkbox"/> Air <input type="checkbox"/> Other (If other, please fill out entire gas stream composition below.)					
3.2: Gas Components	Min	Max	Nominal	Units	Comments
Hydrogen (H2)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	
IS HYDROGEN ALWAYS PRESENT? <input type="checkbox"/> YES <input type="checkbox"/> NO If NO, please provide details below. See NOTE 2 below.					
Process Description:					
Nitrogen (N2)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	
Oxygen (O2)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	<i>May result in drift. See NOTE 3 below.</i>
Water (H2O)				<input type="checkbox"/> % <input type="checkbox"/> ppm <input type="checkbox"/> %RH	<i>Must be non-condensing. See NOTE 4 below.</i>
Inert Gases (Ar, He, Ne, etc.)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	
Carbon Dioxide (CO2)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	
Hydrocarbons (C1 – C5)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	<i>Must be non-condensing. See NOTE 4 below.</i>
Hydrocarbons (C6+)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	<i>Must be non-condensing. See NOTE 4 below.</i>
Carbon Monoxide (CO)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	<i>Refer to product data sheet for maximum CO.</i>
Hydrogen Sulfide (H2S)				<input type="checkbox"/> % or <input type="checkbox"/> ppm	<i>Refer to product data sheet for maximum H2S.</i>
Other				<input type="checkbox"/> % or <input type="checkbox"/> ppm	
Particulates				<input type="checkbox"/> Yes or <input type="checkbox"/> No	<i>If yes, please explain. Maximum 5 microns.</i>
3.3: Comments					

This information is used by H2scan to properly configure products that we warrant for the customer application. H2scan disclaims responsibility for any action taken in reliance upon customer provided information. Use of an H2scan product in conditions that differ from those provided here may void the warranty. H2scan accepts no liability for the consequences of any actions taken on the basis of the information provided, unless that information is subsequently confirmed in writing.

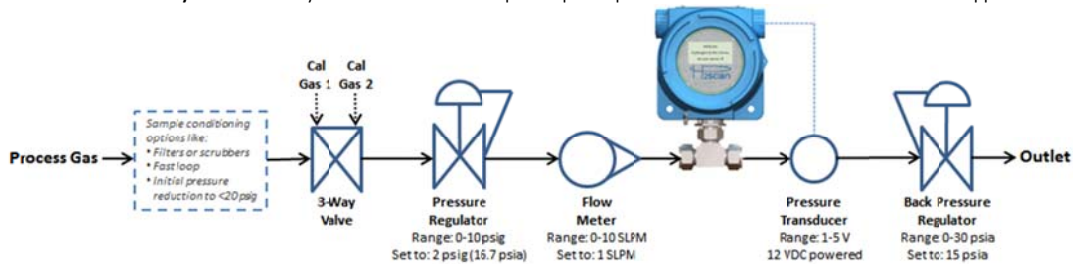
4.0: ANALYZER SELECTION (Please be sure to check ALL appropriate boxes below.)

	<input type="checkbox"/> HY-OPTIMA 7xxB Series 	<input type="checkbox"/> HY-OPTIMA 17xx Intrinsically Safe Series 	<input type="checkbox"/> HY-OPTIMA 27xx Explosion Proof Series
Fittings	Included: ½ in. MNPT Thread	Included: ½ in. MNPT Thread	Default: ¾ in. Union Tee Compression Optional: <input type="checkbox"/> ¾ in. to ¼ in. Reducer (\$)
Power / Cables	Included: 4m Cable Optional: <input type="checkbox"/> 10m Cable (\$) Optional: <input type="checkbox"/> 12 VDC Power Supply (\$)	Included: 4m Armored Cable & Power Barrier Optional: <input type="checkbox"/> 10m IS Power Cable (\$) Optional: <input type="checkbox"/> 24 VDC IS Power Supply (\$)	Customer supplied
Serial Cable	Included: 4m Cable w/DB9 connector Optional: <input type="checkbox"/> 10m Cable (\$) Optional: <input type="checkbox"/> Serial to USB Adapter (\$)	Included: 4m Cable Optional: <input type="checkbox"/> 10m Cable (\$) Optional: <input type="checkbox"/> RS422 IS Serial Barrier (\$)	Customer supplied Optional: <input type="checkbox"/> Serial to USB Adapter (\$)
Relay Cable	Optional: <input type="checkbox"/> 4m Cable (\$) <input type="checkbox"/> 10m Cable (\$)	Optional: <input type="checkbox"/> Analog output barrier with relays (\$)	Customer supplied
Analog Output	Default: 4-20 mA Available: <input type="checkbox"/> 0-5 VDC	Included: 4-20 mA	Included: 4-20 mA
Serial Output	Default: RS-232 Available: <input type="checkbox"/> RS-422	Included: RS-422	Default: RS-232 Available: <input type="checkbox"/> RS-422
H2 Measurement Scale	% H2 (Low) Default is 0-100% % H2 (High) (0-5% for 720B model)	% H2 (Low) Default is 0-100% % H2 (High) (0-5% for 1720 model)	% H2 (Low) Default is 0-100% % H2 (High) (0-5% for 2720 model)
Relay Set Points	Alert (Amber LED): % H2 <i>See NOTE 5</i> Alarm (Red LED): % H2 <i>below.</i>	Alert (Amber LED): % H2 <i>See NOTE 5 below.</i> Alarm (Red LED): % H2 <i>Requires analog output barrier</i>	Alert (Amber LED): % H2 <i>See NOTE 5</i> Alarm (Red LED): % H2 <i>below.</i>
Other Options			Paired Pressure Transducer: <input type="checkbox"/> Yes (\$)

CONTACT H2SCAN FOR PRICING ON ANY OPTIONS OR ACCESSORIES INDICATED BY (\$)

5.0: RECOMMENDED INSTALLATION

The sample conditioning P&ID shown here has been developed by H2scan to help ensure proper analyzer performance. Typical set points for pressure and flow are also indicated. It is highly recommended that this P&ID is followed **exactly**. The 27xx analyzer with recommended optional paired pressure transducer is shown. This P&ID also applies to the 7xx and 17xx analyzers.



6.0: NOTES

1. The pressure at the analyzer must be constant, ideally in the range of 0.95 to 1.1 atm absolute (14.0 to 16.1 psia). Operation above this range typically requires a special factory calibration which has an additional fee and may extend the delivery time. For ATEX / IECEx compliance the pressure at the analyzer may not exceed 1.1 atm absolute (16.1 psia). For all other applications the pressure at the analyzer should never exceed 2 atm absolute (29.4 psia).
2. The HY-OPTIMA™ -10, -30, and -40 analyzers are intended for use with hydrogen ALWAYS present.
 - a. Brief periods (less than 15 minutes) during process startup or shutdown without hydrogen are OK.
 - b. If hydrogen always present cannot be ensured, then during periods of operation with no hydrogen present you must either i) power off the analyzer, or ii) use valves to trap at least 1000 ppm of H2 around the sensor whenever the analyzer is powered on. Hydrogen is not required when the analyzer is off.
 - c. Failure to do this may result in the sensor drifting outside of H2scan's published specifications. This can usually be corrected by performing a field calibration. H2scan cannot guarantee the performance of the analyzer if this is not followed. Customers should determine their own calibration frequency best practice.
3. The HY-OPTIMA™ -10, -30, and -40 analyzers are intended for use with oxygen NOT present. The presence of oxygen may result in sensor performance outside of H2scan's published specifications. H2scan cannot guarantee the performance of the analyzer when oxygen is present in the stream. Note: the HY-OPTIMA™ -20 analyzers are intended for use in processes with air or inert backgrounds where hydrogen is only occasionally present for short periods (up to 1 hour).
4. Non-condensing streams only. Moisture should always be removed as it will damage the sensor. Sensor failure from moisture is not covered by H2scan's warranty.
5. Unless otherwise specified, the factory default settings are alert = 151% and alarm = 152%. These can be easily changed in the field.

7.0: CUSTOMER ACKNOWLEDGEMENT

LIKE ANY ANALYZER, OPERATION OUTSIDE OF H2SCAN'S PUBLISHED DATA SHEET SPECIFICATIONS AND/OR ANY NOTES ON THIS CAI FORM MAY RESULT IN UNEXPECTED PERFORMANCE. IT IS THE CUSTOMER'S RESPONSIBILITY TO PROVIDE ACCURATE INFORMATION TO H2SCAN. THIS FORM IS NOT INTENDED TO REPLACE THE PRODUCT MANUALS. ALWAYS REFER TO THE PRODUCT MANUALS FOR PROPER INSTALLATION AND OPERATION.

PLEASE CHECK THIS BOX TO ACKNOWLEDGE THAT YOU HAVE READ AND UNDERSTOOD THESE GUIDELINES.
ORDERS CANNOT BE PROCESSED IF THIS BOX IS NOT CHECKED.