

INFRARED

PointWatch Eclipse® PIRECL Infrared Hydrocarbon Gas Detector



#1 SELLING DET-TRONICS PRODUCT!

The **PointWatch Eclipse PIRECL Hydrocarbon Detector** (Spec Sheet: 90-1138) is our most rugged stainless steel, point infrared gas detector providing detection of methane, propane, butane and ethylene, among other flammable hydrocarbon gases in the LFL range. Standard signal outputs include isolated 4-20 mA, HART communication protocol, and RS-485 serial communication supporting Modbus. An Eagle Quantum Premier (EQP) version, and optional 2-alarm plus 1-fault relay package are also available. A tri-color LED provides visual display of operating status. The weather baffle provides excellent optics protection with an easy twist-lock removal. Additional features include:

- Compliance to ANSI/ISA-12.13.01-2000 performance standard
- Performance certified to ATEX EN60079-29-1, FM 6310/6320, and CSA 22.2 #152
- Eagle Quantum Premier model
- **Models available with SIL 2 certification**
- Internal wiring compartment saves money and time spent on installation
- Heated optics
- Non-intrusive calibration
- Immune to poisoning
- Handheld communicator capability
- FDT/DTM capable
- Ex d, e, ib protection designs
- FM, CSA, ATEX, and IECEx hazardous location certifications
- DNV and MED offshore certifications
- Conforms to global life safety requirements for combustible gas when connected through:
 - Internal relays, EQP Controller, FlexVu UD10, UD10-DCU,
 - Infiniti U9500, EQ3710 Analog Input Module (AIM)
- Remote calibration capability using UD10 or model PIRTB junction box
- **Sample draw and duct mount accessories available**
- LON configurations are certified as NFPA 72 Class X devices
- Fast response output options available

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PIRECL Model Matrix

MODEL	DESCRIPTION	
PIRECL	PointWatch Eclipse Point Infrared Gas Detector	
	TYPE	THREAD TYPE
	A	3/4" NPT
	B	Metric M25
	TYPE	OUTPUT AND MEASUREMENT OPTIONS
	1	4-20 mA with HART Protocol and RS-485: 0-100% LFL Full Scale Range
	4	Eagle Quantum Premier Compatible Only: 0-100% LFL Full Scale Range
	11*	4-20 mA with HART Protocol and RS-485: 0-100% LFL Full Scale Range, FAST RESPONSE
	14*	Eagle Quantum Premier Compatible Only: 0-100% LFL Full Scale Range, FAST RESPONSE
	TYPE	OPTIONAL OUTPUTS
	A	HART Communication Port
	B	HART Communication Port and Relay Board (not compatible with EQP) Ex d only
	D	No Optional Outputs
	E	Relay Board (not compatible with EQP) Ex d only
	TYPE	WEATHER PROTECTION
	1	Weather Baffle with Hydrophobic filter
	3	Weather Baffle with Hydrophobic filter and 1/16" threaded calibration port
	5	No Weather Protection installed
	TYPE	APPROVALS†
	B	INMETRO (BRAZIL)
	BT	SIL/INMETRO (BRAZIL)
	R	VNIIFTRI (RUSSIA)
	S	SIL
	T	SIL/FM/CSA/ATEX/IECEX
	W	FM/CSA/ATEX/IECEX
	Y	CCCF (CHINA)
	TYPE	CLASSIFICATION
	1	Division/Zone Ex d e
	2	Division/Zone Ex d

*FAST RESPONSE Outputs only available with "T" Approval

†Type Approvals can use one or more letters to designate the approvals of the product.

Typical PIRECL Customer Proposal

Qty	Model	Part Number	Description
1	PIRECLA11B1T2	014046-205	3/4 NPT, 4-20 mA, w/relays, w/hydrophobic filter, SIL/FM/CSA/ATEX/IECEX approvals

Spare Parts

Qty	Model	Part Number	Description
1	N/A	007165-002	Weather baffle with standard inlet nozzle w/hydrophobic filter
1	NA	009862-001	PIRECL Module, 4-20 mA, Standard Response
1	NA	009862-001P	PIRECL Module, 4-20 mA, Standard Response, Propane Calibration
1	NA	009862-002	PIRECL Module, LON, Standard Response
1	NA	009862-003	PIRECL Module, 4-20 mA, SIL, Standard Response
1	NA	009862-004	PIRECL Module, LON, SIL, Standard Response
1	NA	009862-901	PIRECL Module, 4-20 mA, Russian, Standard Response
1	NA	009862-902	PIRECL Module, LON, Russian, Standard Response
1	NA	009862-903	PIRECL Module, 4-20 mA, SIL, Russian, Standard Response
1	NA	009862-904	PIRECL Module, LON, SIL, Russian, Standard Response
1	NA	009862-005	PIRECL Module, 4-20 mA, SIL, Fast Response
1	NA	009862-006	PIRECL Module, LON, SIL, Fast Response

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PIRECL PointWatch Eclipse Models - SIL/FM/CSA/ATEX/IECEx -- Fast Response

Model	Part Number*	Threads	Output	HART Port	Relays	Weather Protection†	Div/Zone Ex d e	Div/Zone Ex d	Color
PIRECLA11A1T1	014046-201	3/4 NPT	4-20 mA	X	No	w/ hydrophobic	X		
PIRECLA11A1T2	014046-241	3/4 NPT	4-20 mA	X	No	w/ hydrophobic		X	
PIRECLA11B1T2	014046-205	3/4 NPT	4-20 mA	X	Yes	w/ hydrophobic		X	
PIRECLA11A3T1	014046-210	3/4 NPT	4-20 mA	X	No	1/16 NPT w/hydro	X		
PIRECLA11A3T2	014046-242	3/4 NPT	4-20 mA	X	No	1/16 NPT w/hydro		X	
PIRECLA14A1T1	014046-212	3/4 NPT	EQP	X	No	w/ hydrophobic	X		
PIRECLA14A1T2	014046-243	3/4 NPT	EQP	X	No	w/ hydrophobic		X	
PIRECLA14A3T1	014046-216	3/4 NPT	EQP	X	No	1/16 NPT w/hydro	X		
PIRECLA14A3T2	014046-244	3/4 NPT	EQP	X	No	1/16 NPT w/hydro		X	
PIRECLB11A1T1	014046-202	M25	4-20 mA	X	No	w/ hydrophobic	X		
PIRECLB11A1T2	014046-245	M25	4-20 mA	X	No	w/ hydrophobic		X	
PIRECLB11B1T2	014046-206	M25	4-20 mA	X	Yes	w/ hydrophobic		X	
PIRECLB11A3T1	014046-240	M25	4-20 mA	X	No	1/16 NPT w/hydro	X		
PIRECLB11A3T2	014046-246	M25	4-20 mA	X	No	1/16 NPT w/hydro		X	
PIRECLB14A1T1	014046-213	M25	EQP	X	No	w/ hydrophobic	X		
PIRECLB14A1T2	014046-247	M25	EQP	X	No	w/ hydrophobic		X	
PIRECLB14A3T1	014046-217	M25	EQP	X	No	1/16 NPT w/hydro	X		
PIRECLB14A3T2	014046-248	M25	EQP	X	No	1/16 NPT w/hydro		X	
PIRECLA11D1T1	014048-201	3/4 NPT	4-20 mA		No	w/ hydrophobic	X		
PIRECLA11D1T2	014048-241	3/4 NPT	4-20 mA		No	w/ hydrophobic		X	
PIRECLA11E1T2	014048-205	3/4 NPT	4-20 mA		Yes	w/ hydrophobic		X	
PIRECLA11D3T1	014048-210	3/4 NPT	4-20 mA		No	1/16 NPT w/hydro	X		
PIRECLA11D3T2	014048-242	3/4 NPT	4-20 mA		No	1/16 NPT w/hydro		X	
PIRECLA14D1T1	014048-212	3/4 NPT	EQP		No	w/ hydrophobic	X		
PIRECLA14D1T2	014048-243	3/4 NPT	EQP		No	w/ hydrophobic		X	
PIRECLA14D3T1	014048-216	3/4 NPT	EQP		No	1/16 NPT w/hydro	X		
PIRECLA14D3T2	014048-244	3/4 NPT	EQP		No	1/16 NPT w/hydro		X	
PIRECLB11D1T1	014048-202	M25	4-20 mA		No	w/ hydrophobic	X		
PIRECLB11D1T2	014048-245	M25	4-20 mA		No	w/ hydrophobic		X	
PIRECLB11E1T2	014048-206	M25	4-20 mA		Yes	w/ hydrophobic		X	
PIRECLB11D1T2	014048-245-LG	M25	4-20 mA		No	w/ hydrophobic		x	Light Gray
PIRECLB11D3T1	014048-240	M25	4-20 mA		No	1/16 NPT w/hydro	X		
PIRECLB11D3T2	014048-246	M25	4-20 mA		No	1/16 NPT w/hydro		X	
PIRECLB14D1T1	014048-213	M25	EQP		No	w/ hydrophobic	X		
PIRECLB14D1T2	014048-247	M25	EQP		No	w/ hydrophobic		X	
PIRECLB14D3T1	014048-217	M25	EQP		No	1/16 NPT w/hydro	X		
PIRECLB14D3T2	014048-248	M25	EQP		No	1/16 NPT w/hydro		X	
Ship Weight: 11.5lb (5.2kg)									

*Part numbers listed are factory calibrated to methane. Add a "P" to the end of the part number for propane (example: 014046-201P). Add "E" for ethylene or "B" for butane.

†Units with 1/16 NPT are 007529-XXX Duct Kit compatible

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PIRECL PointWatch Eclipse Models - INMETRO (Brazil) -- Fast Response

Model	Part Number*	Threads	Output	Hart Port	Relays	Weather Protection	Ex d	SIL
PIRECLA11B1BT2	014046-605	3/4 NPT	4-20 mA	X	X	w/ hydrophobic	X	X
PIRECLA11A1BT2	014046-641	3/4 NPT	4-20 mA	X		w/ hydrophobic	X	X
PIRECLA11D1BT2	014048-641	3/4 NPT	4-20 mA			w/ hydrophobic	X	X
PIRECLA14A1BT2	014046-643	3/4 NPT	EQP	X		w/ hydrophobic	X	X
PIRECLA14A3BT2	014046-644	3/4 NPT	EQP	X		w/ hydrophobic	X	X
PIRECLA14D1BT2	014048-643	3/4 NPT	EQP			w/ hydrophobic	X	X
Ship Weight: 11.5 lb (5.2 kg)								

*Part numbers listed are factory calibrated to Methane. Add a "P" to the end of the part number for propane (example: 014046-605P).

Add "E" for ethylene or "B" for butane.

PIRECL PointWatch Eclipse Models - VNIIFTRI (Russia)

Model	Part Number*	Threads	Output	HART Port	Relays	Weather Protection†	Ex d e	Ex d	SIL
PIRECLB1A1R1	007168-902	M25	4-20 mA	X	No	w/ hydrophobic	X		
PIRECLB1A1R2	007168-905	M25	4-20 mA	X	No	w/ hydrophobic		X	
PIRECLB1A2R1	007168-904	M25	4-20 mA	X	No	no hydrophobic	X		
PIRECLB1A2R2	007168-907	M25	4-20 mA	X	No	no hydrophobic		X	
PIRECLB1B1R2	007168-906	M25	4-20 mA	X	Yes	w/ hydrophobic		X	
PIRECLB1B2R2	007168-908	M25	4-20 mA	X	Yes	no hydrophobic		X	
PIRECLB1A3R1	007168-940	M25	4-20 mA	X	No	1/16 NPT w/hydro	X		
PIRECLB1A3R2	007168-946	M25	4-20 mA	X	No	1/16 NPT w/hydro		X	
PIRECLB1A1SR2	007168-965	M25	4-20 mA	X		w/ hydrophobic		X	X
PIRECLB1B1SR2	007168-966	M25	4-20 mA	X	X	w/ hydrophobic		X	X
PIRECLB1B2SR2	007168-968	M25	4-20 mA	X	X	no hydrophobic		X	X
PIRECLB1A3SR2	007168-986	M25	4-20 mA	X		1/16 NPT w/hydro		X	X
PIRECLA4A3R1	007168-916	3/4 NPT	EQP	X	No	1/16 NPT w/hydro	X		
PIRECLA4A1R1	007168-912	3/4 NPT	EQP	X	No	w/ hydrophobic	X		
PIRECLB4A1R2	007168-913	M25	EQP	X	No	w/ hydrophobic		X	
PIRECLB4A2R2	007168-915	M25	EQP	X	No	no hydrophobic		X	
PIRECLB4A1SR2	007168-973	M25	EQP	X		w/ hydrophobic		X	X
PIRECLB4A2SR2	007168-975	M25	EQP	X		no hydrophobic		X	X
PIRECLA1B1SR2	007168-985	3/4 NPT	EQP		X	w/ hydrophobic			X
Ship Weight: 11.5lb (5.2kg)									

*Part numbers listed are factory calibrated to methane. Add a "P" to the end of the part number for propane (example: 007168-902P).

Add "E" for ethylene or "B" for butane.

†Units with 1/16 NPT are 007529-XXX Duct Kit compatible

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PIRECL PointWatch Eclipse Models - CCCF/NEPSI (China)

Model	Part Number	Threads	Output	HART Port	Relays	Weather Protection*	Ex d e	Ex d	CCCF/NEPSI
PIRECLA1A1Y1	007168-101	3/4 NPT	4-20 mA	X	No	w/ hydrophobic	X		X
PIRECLA1A2Y1	007168-103	3/4 NPT	4-20 mA	X	No	no hydrophobic	X		X
PIRECLA1B1Y2	007168-105	3/4 NPT	4-20 mA	X	Yes	w/ hydrophobic		X	X
PIRECLA1A3Y1	007168-110	3/4 NPT	4-20 mA	X	No	1/16 NPT w/hydro	X		X
PIRECLB1A1Y1	007168-102	M25	4-20 mA	X	No	w/ hydrophobic	X		X
PIRECLB1B1Y2	007168-106	M25	4-20 mA	X	Yes	w/ hydrophobic		X	X
PIRECLA1D1Y1	010195-101	3/4 NPT	4-20 mA		No	w/ hydrophobic	X		X
PIRECLA1E1Y2	010195-105	3/4 NPT	4-20 mA		Yes	w/ hydrophobic		X	X
PIRECLB1E1Y2	010195-106	M25	4-20 mA		Yes	w/ hydrophobic		X	X
PIRECLA1D1Y2	010195-141	3/4 NPT	4-20 mA		No	w/ hydrophobic		X	X
PIRECLB1D1Y2	010195-145	M25	4-20 mA		No	w/ hydrophobic		X	X
Ship Weight: 11.5lb (5.2kg)									

*Units with 1/16 NPT are 007529-XXX Duct Kit compatible