The Minox i is a highly reliable and cost-effective two-wire, loop-powered transmitter with a linearized 4 to 20 mA output. The standard offering has a detection measurement range of 0-25% oxygen.

This compact transmitter utilizes electrochemical sensor technology and is also available with a solid state ceramic sensor, both of which provide a long sensor life with a high level of accuracy and stability.
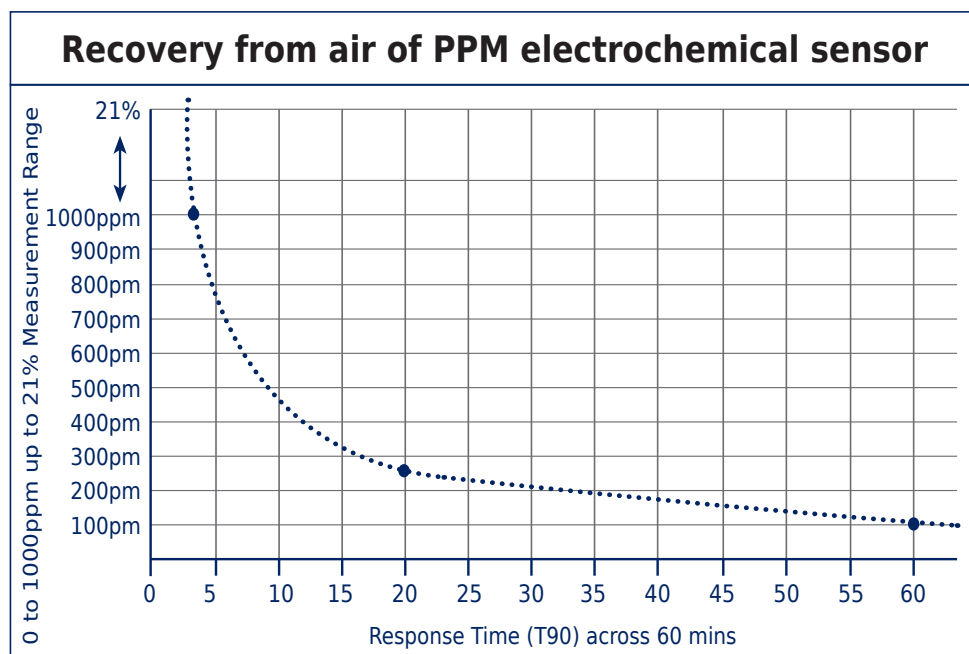
ATEX Certified ⟨Ex⟩ **II 1GD**

Applications

» Nitrogen generation
» Additive manufacturing
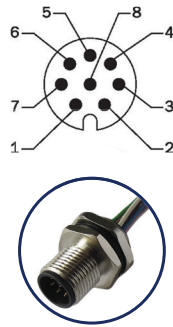» Glove box purge and leak detection
» Pharmaceutical applications

Features

» Electrochemical or Solid State sensor technology options
» Measurement range 0 to 25% O_2
» 24VDC loop powered
» M12 electrical connection
» Choice of flowthrough, tri-clamp and KF40 flange process connections as standard
» Combined sensor and electronics allows for ease of integration.
» Robust device (< 0.8Kgs)
» Stainless steel housing

Plug & Play
Technology

Minox i

Technical Specifications

Instrinsically Safe Oxygen Transmitter

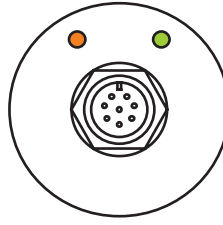| Performance		
Transmitter Model	**Minox i**	
Measurement technology	Solid state ceramic	Electrochemical (EC)
Measurement range*	0 to 25%	
Output resolution (for %)	0.01%	
Accuracy	+/-2% of reading (or 2ppm O2) @ calibrated temperature and pressure	
Response time (T90)	<10 seconds @ 25˚C (within selected range)	
LDL (Sensitivity)	0.01% (when measuring %) / 1ppm (when measuring ppm)	
Temperature range	-20˚C to +50˚C	0˚C to +45˚C
Pressure range	900 to 1100 mBar$_{abs}$	
Linearity	+/- 2% of reading	
Life expectation	3-5 years	1 year
Humidity	0-95% RH non-condensing	
Shelf life	No shelf life	
Electrical Input / Output		
Power supply	24VDC +/- 10%	
Power consumption	Maximum 50mA @ 24VDC	
Signal output	4-20mA	
Electrical interface	M12 x 1.5 connection	
Cable length	1 metre / 3 metre / 10 metre	
Mechanical Specifications		
Dimensions	47mm Diameter x 120mm to 140mm depending on connection type	
Weight	0.260kg	
Wetted materials	Stainless Steel or Aluminium and PTFE, Viton	
Process connection	Flowthrough / 2" Tri-clamp / KF40 Flange	
Ingress protection	IP 66	
Housing material	Anodised aluminium or Stainless Steel	
Certification		
Complies with EMC Directive 2004 / 108 / EC. UL/ETL Certification Number: UL-61010-1		

Recovery from air of PPM electrochemical sensor

y-axis: 0 to 1000ppm up to 21% Measurement Range (21%, 1000ppm, 900pm, 800pm, 700pm, 600pm, 500pm, 400pm, 300pm, 200pm, 100pm)

x-axis: Response Time (T90) across 60 mins (0, 5, 10, 15, 20, 25, 30, 35, 40, 45, 50, 55, 60)

* Outputs can be factory set to other ranges. Please see order code sheet for details.

Minox i

Instrinsically Safe Oxygen Transmitter

M12 Connector Pin Assignment

Pin	Assignment	Cable Core Colour
1	Not Used (Note 1)	Black
2	Not Used (Note 1)	Brown
3	Analogue Output Ground	Green
4	Serial RS485 (B)	Yellow
5	Serial RS485(A)	Grey
6	Power Ground OVDC	White
7	Power Supply +24VDC	Blue
8	Analogue Output (mA)(Note 1)	Red

Notes:
1. Cable cores that are not used must be insulated / heat-shrinked.

LED functionality

Orange LED
Modbus 485 Indicator

Green LED
Power Indicator

Technical Drawings

121.5

50.5 53.4

CONNECTOR

57.5 Ø37 39 54.8

10
BSPP 1/8" THREADED

THIRD ANGLE PROJECTION

NOTES:
DIMENSIONS IN MM
MATERIAL: 303 STAINLESS STEEL.
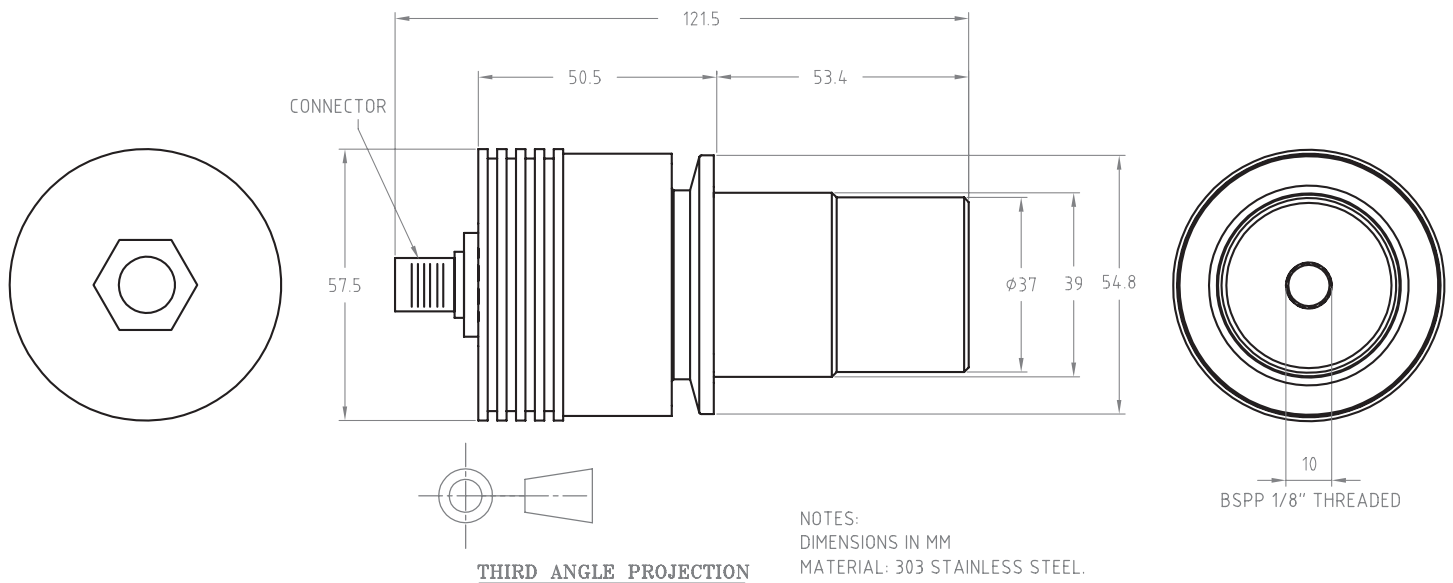
Ordering information

Model	Range	Sensor type	Power supply	Process Connection	Part no
Minox i 201	0 - 25%	Electrochemical: OC-90	24 VDC Loop Powered	Flow Through	05-418
Minox i 200	0 - 25%	Electrochemical: OC-90	24 VDC Loop Powered	Tri-clamp	06-648
Minox i 200	0 - 25%	Electrochemical: OC-90	24 VDC Loop Powered	KF-40	05-549
Minox i 200	0 - 25%	Solid State Ceramic: OC-92	24 VDC Loop Powered	Flow Through	06-095
Minox i 200	0 - 25%	Solid State Ceramic: OC-92	24 VDC Loop Powered	Tri-clamp	06-649
Minox i 200	0 - 25%	Solid State Ceramic: OC-92	24 VDC Loop Powered	KF-40	06-144

Related Products

MICROX
Oxygen Analyser

SF82
Dew Point Transmitter

SenzTx
Oxygen Transmitter

Gasenz
Ambient O_2 Monitor

Microx - OL
Online O_2 Analyser

Yellow Box
Portable O_2 Analyser

GazTrak
Portable Oxygen & Moisture Measurement