

HLX820

CO₂ Transmitter for Demanding Applications

The XLX820 is designed for use in harsh, demanding applications. A multiple point CO₂ and temperature factory adjustment procedure leads to excellent CO₂ measurement accuracy over the entire temperature working range, so the XLX820 can even be installed outdoors.

The HLX820 incorporates the dual wavelength NDIR CO₂ sensor, which compensates for ageing effects, is highly insensitive to pollution and offers outstanding long term stability. With its robust, functional housing with a special integrated filter the HLX820 can be installed in polluted applications such as in agriculture and live stock barns.

For fast response time requirements there is an HLX820 version with forced air circulation created by a fan installed behind the filter. An optional M12 connector facilitates easy removal of HLX820 before site cleaning operations.



The measured data range of up to 10,000ppm is available on the voltage or current analogue outputs. An optional kit facilitates easy configuration and adjustment of the HLX820.

Typical Applications

- Greenhouses**
- Fruit and vegetable storage**
- Stables**
- Hatchers and Incubators**
- Vehicles, Trains, Trams**

Key Features

- Autocalibration**
- Outstanding long-term stability**
- Temperature compensation**
- High resistance to pollution**
- Easy installation**

Technical Data

Measured values

Measuring principle	dual wavelength non-dispersive infrared technology (NDIR)	
Measurement range	0...2000 / 5000 / 10000ppm	
Accuracy at 25°C and 1013mbar (77°F...14,7psi)	0...2000ppm:	< ± (50ppm +2% of measured value)
	0...5000ppm:	< ± (50ppm +3% of measured value)
	0...10000ppm:	< ± (100ppm +5% of measured value)
Response time T_{63}	standard:	typ. 300s
	fast:	typ. 140s (with a forced air circulation module)
Temperature dependency	typ. 1ppm CO ₂ /°C (-20...45°C) (-4...113°F)	
Sample rate	approx. 15s	

Output

0...2000 / 5000 / 10000ppm	0 - 5 / 0 - 10V	-1mA < I _L < 1mA
	4 - 20mA	R _L < 500 Ohm

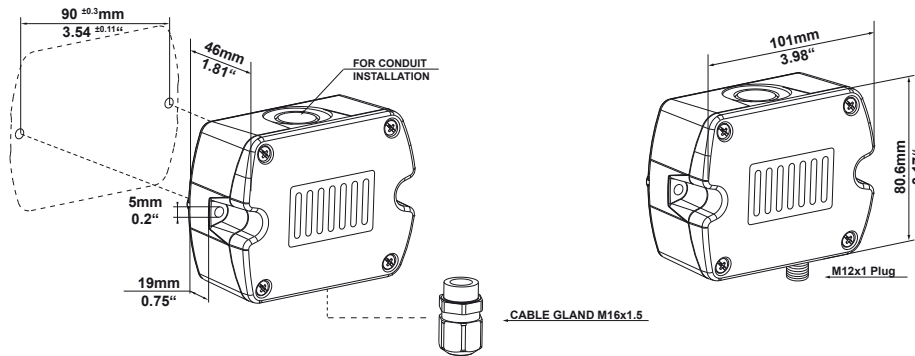
General

Supply voltage	24V AC ±20%	15 - 35V DC
Current consumption	standard:	typ. 15mA + output current
	fast:	typ. 60mA + output current
Current peak	max. 350mA for 0.3s	
Warm up time ¹⁾	< 5 min	
Housing material	Polycarbonate, UL94V-0 approved	
Protection class	IP54	
Electrical connection	Screw terminals 2.5mm ² or M12 plug	
Electromagnetic compatibility	EN61326-1	EN61326-2-3 Industrial Environment
	FCC Part 15	ICES-003 ClassB
Working conditions	-20...60°C (-4...140°F) 0...100% RH (non-condensing)	
Storage conditions	-20...60°C (-4...140°F) 0...95% RH (non-condensing)	



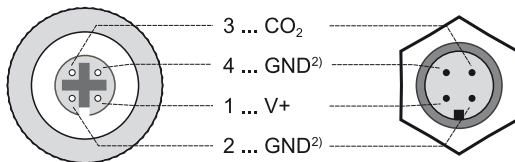
1) for performance according to specification

Dimensions (mm/inch)



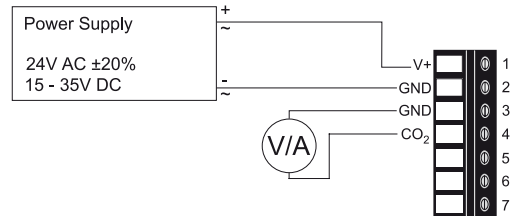
Connection Diagram

HLX820 with M12 plug



- 1) Mating connector HA010707 is included in the scope of supply
- 2) GND internally connected

HLX820 with cable gland



Ordering Guide

MODEL	ANALOGUE	DIGITAL	HOUSING	CONNECTION	SCALING	RESPONSE TIME
CO ₂ (C)	0-5V (2)	none (x)	standard (P)	cable gland (P)	0...2000ppm (002)	standard (S)
	0-10V (3)			M12 plug (N)	0...5000ppm (005)	fast ¹⁾ (F)
	4-20mA (6)				0...10000ppm (010)	
HLX820-						

1) Includes a forced air circulation module.

Order Example

HLX820-C6xPP-002S

Model: CO₂
 Analog output: 4-20mA
 Housing: standard
 Connection: cable gland
 Scaling: 0...2000ppm
 Response time: standard

Accessories (see data sheet „Accessories“)

Product configuration adapter	see data sheet EE-PCA
Product configuration software	EE-PCS
Mating connector 4pol. self assembly M12x1	HA010707
Connection cable 5 pins, M12x1 socket - flying leads, shielded, 1,5m (3.3ft)	HA010819
Connection cable 5 pins, M12x1 socket - flying leads, shielded, 5m (16.4ft)	HA010820
Connection cable 5 pins, M12x1 socket - flying leads, shielded, 10m (32.8ft)	HA010821
Protective cap for female M12 connectors	HA010781
Protective cap for male M12 connectors	HA010782
Power supply adapter	V03
Forced air circulation module	HLX820-FAC
Replacement cover with filter	HLX820-COVER

Support Literature