TECHNICAL DATA SHEET

Ikos Sensor de Presión

6 bar pressure sensor · Hydroponic Package



Description

Sensor for the Ikos Cosmos hydroponic module that continuously measures irrigation line pressure, detects the start and end of each irrigation and shows the water applied to each sector.

Features

- Continuous pressure measurement, logged at the start and end of each irrigation.
- Detects the start and end of irrigation and calculates its duration.
- Calculates m^3 and l/m^2 from dripper flow, number of drippers and sector area.
- Low-pressure alarm configurable by threshold, delay from irrigation start, repetitions and time window.
- G1/4 installation, compatible with water, gas, oil or mixtures.

Technical specifications

Operating voltage	4.75 – 16 V DC
Working current	< 3 mA (typical 1.5 mA)
Working pressure	0 – 6 bar
Overload pressure	2 × FS
Burst pressure	5 × FS
Output voltage	0.5 – 4.5 V
Working temperature	Sensor −20 ~ +105 °C · cable −20 ~ +85 °C
Storage temperature	−20 ~ +85 °C
Output accuracy	±0.5 % FS between 10 and 40 °C · ±2 % FS between −20 and +105 °C
Response time	< 10 ms
Limit voltage	±20 V DC
ESD	Contact > 8 kV · air > 15 kV
Service life	> 2 million pressure cycles
Long-term stability	Zero drift < 0.25 % FS at 25 °C
Service fluid	Water, gas, oil or mixture
Water/dust protection	IP6K8K

Transfer function: 0.5 to 4.5 V output for a 0 to 6 bar range. FS = full scale.

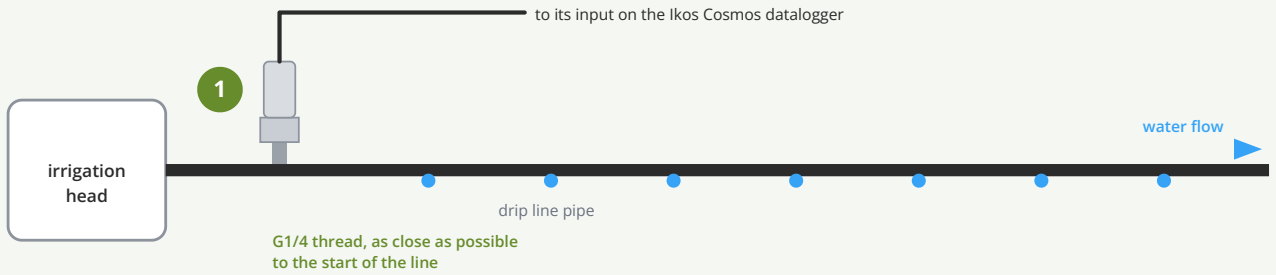
Construction

Cover	Aluminium 6061-T6
O-ring	FKM/75A
Electrical connector	3-way, 2.54 mm pitch
Cable	24 AWG, flexible silicone, 100 mm (custom length available)
Process thread	G1/4
Dimensions (mm)	Body height 22.6 · thread 10.5 · hexagon 21 · Ø 23
Weight	15 g
Material	**Aluminium 6061-T6; FKM O-ring; silicone cable**

Connections

PIN	WIRE COLOUR	SIGNAL
1	Red	Vs · supply
2	Yellow	Vout · voltage output
3	Black	GND · ground

Installation



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Screw the sensor (G1/4) into the drip line pipe, as close as possible to the start of the line, so that the water for the largest number of drippers passes that point. Connect it to its input on the Ikos Cosmos datalogger.

Integration with Ikos Cosmos

Variable	HRP
Unit	mbar (1 bar = 1000 mbar)
Platform range	0 – 6 bar
Compatible device	Ikos Controller Cosmos
Minimum firmware	v30.2.0-hidro-beta
Data reporting	Device reporting interval + irrigation start and end events

Platform registration	Independent sensor in the app and in administration, with its own history and tracking
Derived data	Irrigation duration, m^3, l/m^2, dripper density, sector flow and average pressure
Low-pressure alarm	Configurable by threshold, delay from irrigation start, repetitions and time window