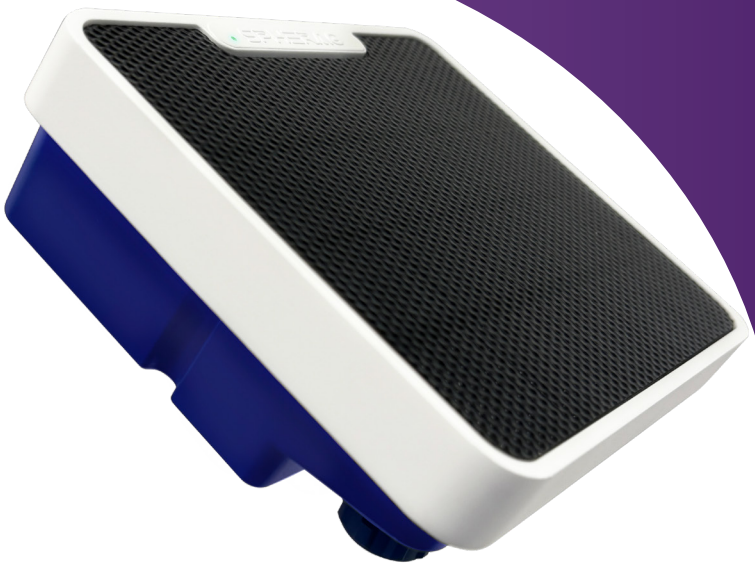
Raphael
Beyond Valves



SMART SOLUTIONS

ATLAS X

Cellular Irrigation Controller

ATLAS X

IoT-based Solution for Monitoring & Automating Water Systems



Description

ATLAS X enables intelligent, integrated irrigation management. Connected to the Raphael platform, it uses innovative technology to provide remote monitoring and data-driven automation of irrigation systems.

Technical Information

Mechanical Specifications	
Dimensions	140x125x45 mm
Weight	490 g
Material	ASA, ETFE
Working Temperature	-10ºC to 50ºC
Accessories	2 I/O cables (1,5 m) Quickstart Guide

Connectivity	
Network	GPRS, NB-IoT, LTE-M
Antenna	Internal
SIM Card	Inside the Device

General Specifications	
Inputs	8 (Flowmeter or Digital Input)
Outputs	8 (Latch Relay or Latch Solenoid)
Output Voltage	12 ~ 18 Vdc
Remote Configuration	Raphael Platform
Visual Indicator	LED (Status)
Sample Time	5 min - 1 h
Uplink Communications Period (Sensors)	15 min - 24 h
Uplink Communications (Events)	15 min - 24 h
Downlink Communications Period	<10”

* 4–20 pressure sensor: uplink communication period 1 minute

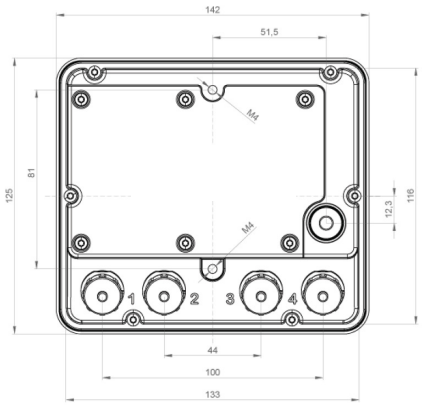
Certifications	
Europe	CE Marking
IP Rating	IP68
IK Rating	IK-07

Sensors	
Pressure Sensor	I²C (30 bar)
Soil Sensor	I²C (Soil Temperature, VWC) SDI-12 (Sentek) (T, H, EC) SDI-12 (Enviropro) (T, H, EC)
Ambient	I2C
EC Sensor	SDI-12 (EC ES2)
Level Sensor	I2C (10 m) I2C (50 m)
Generic Sensor	4-20 mA

Power Specifications	
Power Supply	Integrated 2,5 W Solar Panel
Internal Battery	LiPo 8000 mAh
External Power Supply	5 ~ 24 Vdc

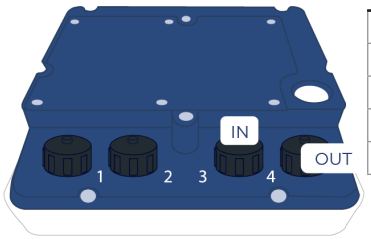
Capabilities	
Alarm Sources	Water Meter External Sensor Internal Sensor Digital Input
Remote Diagnosis	BLE
Firmware	FOTA
Internal Sensors	Battery Level Solar Panel Voltage Temperature Humidity

Dimensions & Mounting Points



All units are in mm

Connections



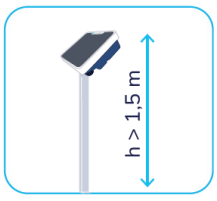
Connector	Function
1	External Power Supply
2	Sensor
3	Inputs
4	Outputs

Wire color	IN (3)	OUT (4)
Red	In 1	Out 1
Green	In 2	Out 2
Purple	In 3	Out 3
Yellow	In 4	Out 4
Blue	In 5	Out 5
Orange	In 6	Out 6
Grey	In 7	Out 7
Brown	In 8	Out 8
Black	COM	COM

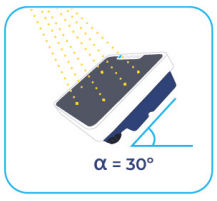


Cable Length
Outputs: 20 m max./ Inputs: 1,5 m max.

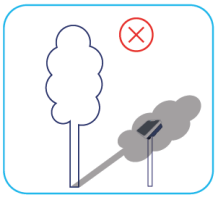
Field Installation Recommendations



Place the device 1.5 m above the ground, using a pole or a mount

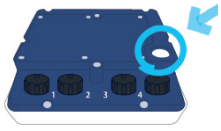


Direct the device towards the sun facing the equator at a 30° angle.

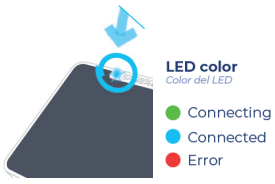


Prevent shadows and obstacles from interfering with sunlight

Turning on the ATLAS



Press the white button on the back



Check the LED color to determine the status

Bracket Mounting



Mounting Atlas on a wall with the bracket



Mounting Atlas on a pole with the bracket

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RAPHAEL, founded in 1949, is the first Israeli manufacturer of water control valves.

RAPHAEL's research department constantly strives to introduce new and innovative products and solutions for water control systems including water works, fire protection and irrigation systems.



Raphael Valves Industries (1975) Ltd.

Northern Industrial Zone, Or Akiva 3065401, Israel

972-(0)4-6263555 / info@raphael-valves.com / raphael-valves.com

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