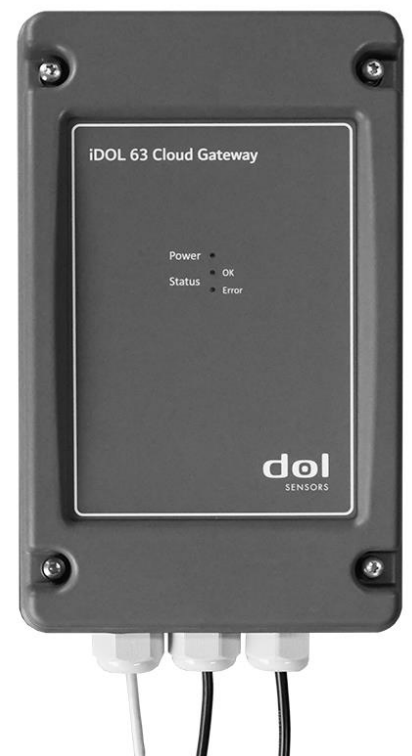


iDOL 63

EN

Technical User's Guide



For **other language variants** of this document we refer to www.dol-sensors.com or your local dealer.

INTRODUCTION

This manual covers the installation; mounting, electrical installation and setup of the iDOL 63 Cloud Gateway. The manual provides the user, installer and electrician with the basic knowledge on how to mount and connect the iDOL 63 to the cloud.

The electrical installation section is intended primarily for electricians commissioning and servicing the system.

Please be aware that the iDOL 63 may not be opened without first removing the supply voltage, and that service and troubleshooting may only be done by qualified personnel.

PRODUCT DESCRIPTION

The iDOL 63 Cloud Gateway collects data from the attached DOL sensors and sends these data to the DOL Omni Cloud.

The sensor data can be viewed in Omni Farm app.

SETUP

The full process for unboxing the iDOL 63 to fully operational is for short described by the following steps:

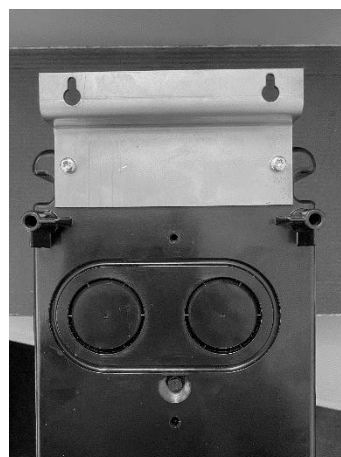
- Unbox and install the iDOL 63 as described in this manual. This includes mounting, electrical installation and registration of location
- Install local network in the stable and connect into the Internet/WAN
- Use external 48v power supply or POE via the internet cable
- Document location of the iDOL 63 sensors and handover this information to the administrative personnel managing the farmers account in DOL Omni
- The administrative personnel configure the farmers account in DOL Omni, as described by the Users Guide for DOL Omni and the system becomes fully operational

Make sure to read the full guide before you start mounting the iDOL 63.

MOUNTING

The iDOL 63 must be mounted in the walking area or control room, not directly inside the stable area together with the animals.

Mount the sensors inside the stable area according to the installation instructions found in the sensor documentation.



iDOL 63 is delivered with a mounting bracket.

Mount the bracket onto the back of the box with the two 4x10 TX20 screws provided. Note that the bracket should be mounted furthest away from the cable inlet holes in the bottom.

Figure 1: Mounting bracket

Mount iDOL 63 to the wall using suitable fasteners for the wall material.

ELECTRICAL INSTALLATION

The electrical connections must be made as specified below.



Figure 2: Inside of the iDOL 63 box. Make sure that cables and wires are connected as illustrated

Internet

The box needs access to the internet via the ethernet port (RJ45 internet connector). The ethernet cable must not exceed 100m. The network must provide a dynamic allocated IP for the iDOL 63.

The network (connection to internet) must allow for:

- TCP I/O access to port 8883 (secure MQTT)
- TCP I/O access to port 443 (secure HTTP)
- TCP/UDP I/O access to port 53 (DNS)

Power

The iDOL 63 is powered by POE via the RJ45 internet connector.

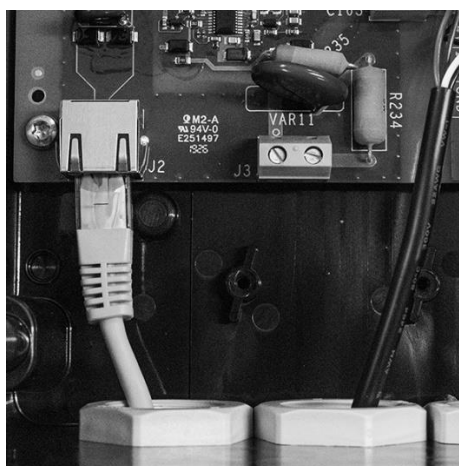
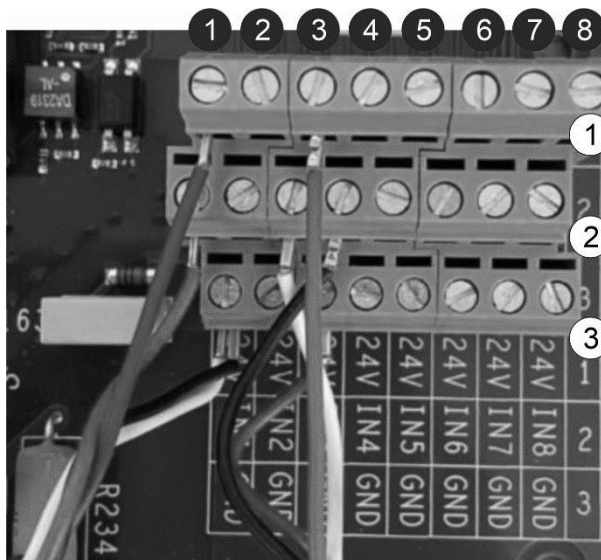


Figure 3: iDOL 63 powered with RJ45 internet connector

Sensors

The sensors must be connected to the exact ports on the screw terminals as illustrated below. Max current per port is 83 mA. Minimum cable size depends on the distance to the sensor, please refer to the table below:

Distance	mm ²	AWG
<50 m	Min. 0.5 mm ²	Min. 20 AWG
50-100 m	Min. 0.75 mm ²	Min. 18 AWG
100-150 m	Min. 1.0 mm ²	Min. 17 AWG



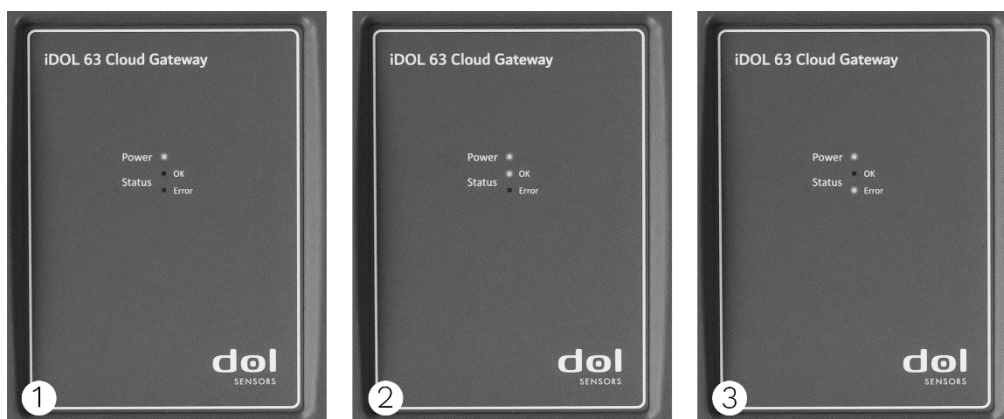
Row No.	Assignment
1	24V
2	IN1-IN8
3	GND

DOL 19								
Column No.	1	2	3	4	5	6	7	8
Row No.								
1	Brown							
2	Blue							
3	Black/ White							

DOL 114								
Column No.	1	2	3	4	5	6	7	8
Row No.								
1			Brown					
2			White	Black				
3			Blue					

Front LED

On completion of mounting, installation and powering up, the tree LEDs on the front will indicate the status of the iDOL 63.



1. Power: Green LED, always ON when iDOL 63 is powered
2. Status OK: Green LED is ON when iDOL 63 is successfully connected to DOL Omni cloud and is receiving data.
3. Status Error: Red LED is ON when connection to DOL Omni cloud is lost

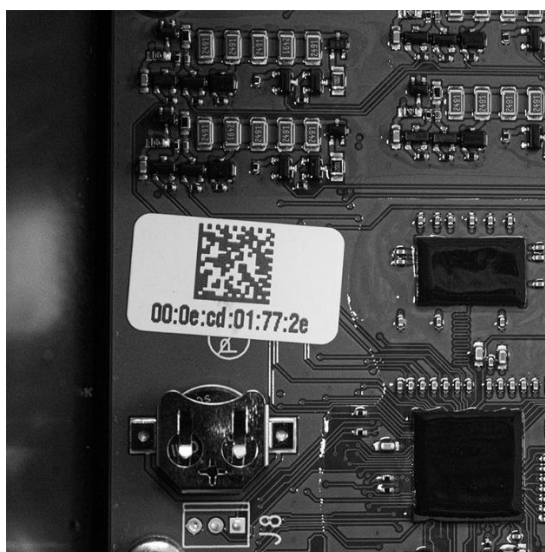


Figure 4: Label with MAC address can be found on the circuit board

Farm	Stable	Section	Pen	MAC Address	Comment

Figure 5: Table for registration of location. Typically, the sensors are mounted at section level, then simply skip filling in the Pen

MAINTENANCE

The iDOL 63 itself do not need maintenance.

When clean iDOL 63, use water and a brush. Do not use:

- High-pressure cleaner
- Highly compressed air
- Solvents
- Corrosive/caustic agents
- Alcohol-based disinfectants

TROUBLESHOOTING

Please refer to section Front LED in this manual.

TECHNICAL DATA

Supply voltage	48VDC (PoE IEEE 802.3af or better)	
Supply power available	12.95W minimum	
Ambient temperature, operation	0°C – 50°C	
Ambient temperature, storage	-20°C – 60°C	
Ambient humidity, operation	10 - 90%RH	
Classification	IP 54	
Connection, Power	RJ45	LAN: CAT5e (or higher)
Connection, Sensors	Screw terminal	
Weight	1000 g	
Dimensions	H x W x D: 120 x 162 x 261 mm	
Dimensions, shipment	H x W x D: 165 x 230 x 310 mm	

dol
SENSORS

MAKING SENSE IN YOUR PRODUCTION

