

DOL 94-10

Bird scale



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

Product and Documentation Changes

dol-sensors reserves the right to change this document and the product herein described without further notice. In case of doubt, please contact dol-sensors.

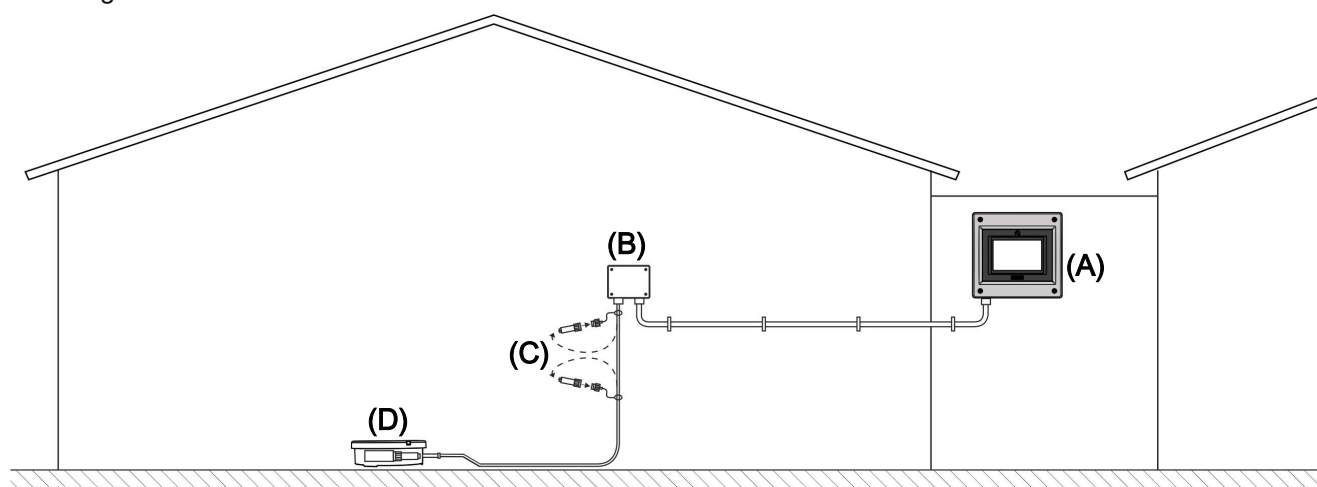
The date of change appears from the front and back pages.

1 Product description

DOL 94-10, poultry scale is capable of weighing animals up to 10 kg.

The weighing cell of the scale converts the weight of the bird to a voltage. This voltage is intensified and adjusted to the calibration values after which it is transferred to the controller.

DOL 94-10 is easy to remove when cleaning the house. It is easily adjusted/calibrated by means of a calibration weight.



(A) Controller

(B) Connection box (to be purchased separately)

(C) Plugs with dust cap

(D) DOL 94-10 Poultry scale

2 Product survey



130412 DOL 94-10 platform scale

Is used for weighing of broilers and breeders.

Supplied with 3 m cable.

Capacity: 10 kg

Supply voltage: 11 – 30 V DC

Output signal: 0 kg = 0.5 V / 10 kg = 10.00 V.



130418 DOL 94-10 Platform scale with plug

Is used for weighing of broilers and breeders.

Supplied with 3 m cable with plug.

Capacity: 10 kg

Supply voltage: 11 – 30 V DC

Output signal: 0 kg = 0.5 V / 10 kg = 10.00 V.

2.1 Accessories



130961 M12x1 circular connection plug

Is used if DOL 94-10 cable needs to be extended.

Consists of:

- Cable plug four-pole female
- Cable plug four-pole male
- Dust cap 693 female plug
- Dust cap 693 male plug

3 Mounting Guide

1. Place the scale on the floor and check that it is in a stable position:
 - where there is great movement activity, typically between water and feed lines.
 - approx. 1/3 down in the house and where the scale can be seen from the entrance of the livestock house.
 - so the cable can easily be led through the litter to the wall, post or ceiling.
 - so the birds cannot fly against the cable or peck the cable into pieces.
2. Connect the scale to the production controller.













DOL 94-10 is a precision product and thus requires careful handling.

Do not expose the scale to impacts or loads exceeding 10 kg. Do not step on the scale.

Permanent damage to the load cell is a risk if it is dropped.

4 Recommended tools

Below follows a list of tools recommended for installation of the DOL 94-10.

Item	Description
	Cordless drill
	Screwdriver bits
	Utility knife
	Multimeter
	Tape measure
	Side cutter
	Needle-nose pliers
	Ladder
	Screwdriver
	Spirit level

5 Installation guide

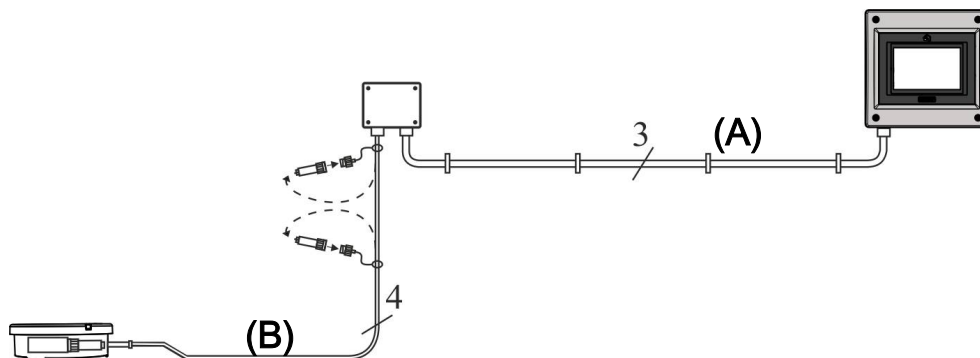
5.1 Electrical connection



Installation, servicing and troubleshooting of all electrical equipment must be carried out by qualified personnel in compliance with the applicable national and international standard EN 60204-1 and any other EU standards that are applicable in Europe.

The installation of a power supply isolator is required for each motor and power supply to facilitate voltage-free work on the electrical equipment. The power supply isolator is not included.

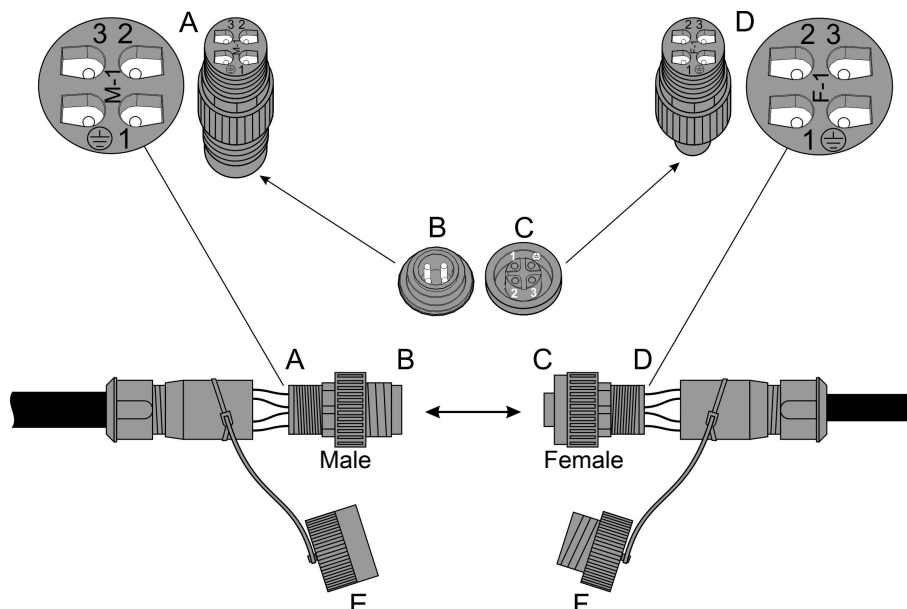
5.2 Cable routing



(A) three-core cable for 24 VDC supply and 0-10 V signal to production controller.

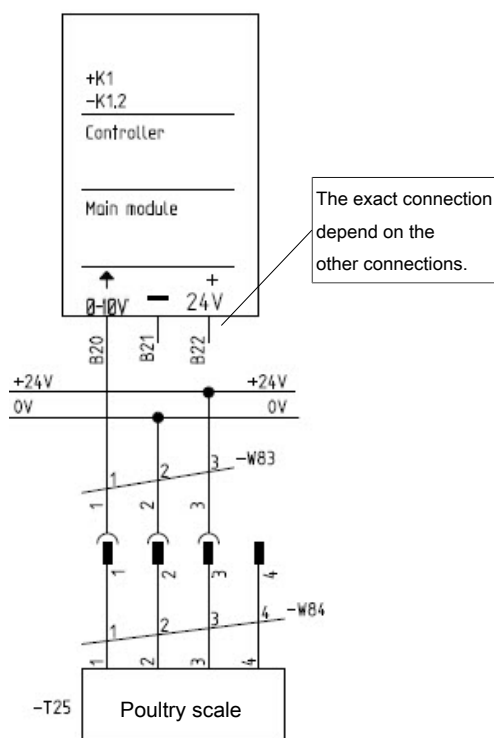
(B) 4-core cable between scale and connection box.

5.2.1 M12x1 circular connection plug



5.3 Circuit diagram

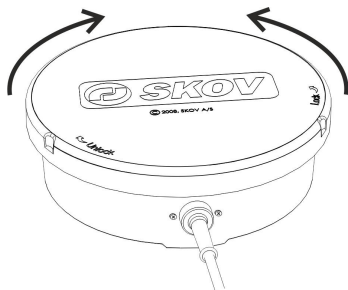
Example of poultry scale connected to production controller.



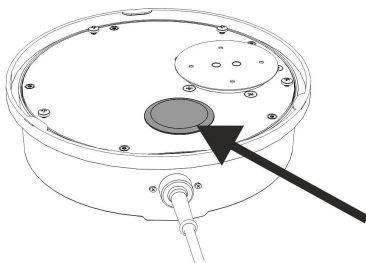
6 Manual calibration of poultry scale

! If the scale is connected to a SKOV production controller, calibration should always be made by means of the production controller menus. See the controller documentation for description.

From the factory, the scale is calibrated but it ought to be tested and possibly calibrated once a year, if needed.

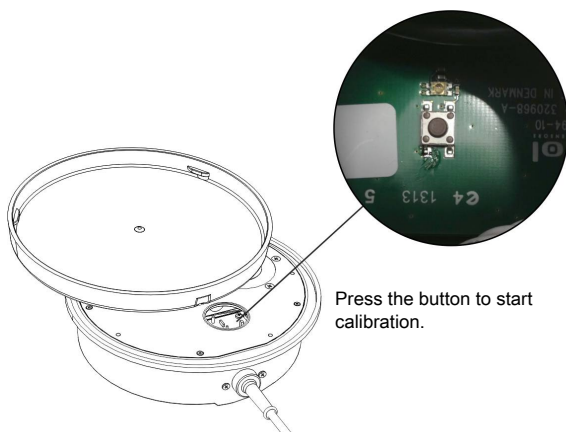


1. Place the scale in its location.
2. Connect the scale and wait for minimum 30 minutes at the service temperature before calibration.
3. The cap is removed by turning it in the direction specified.



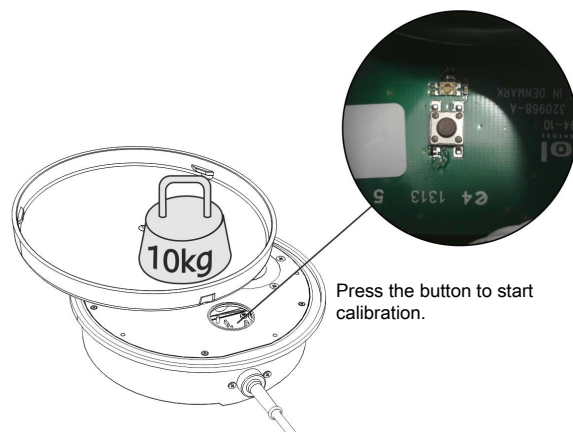
4. Clean the cap and scale of litter and dirt.
5. Remove the rubber plug.

0 kg



Press the button to start calibration.

10 kg



Press the button to start calibration.

1. Place the cap upside down on the end of the top frame so the electric module is uncovered.
2. Make adjustment through the hole. The green LED will be on at the beginning:
3. At empty cap 0kg.
Push the button and hold it until the green LED begins to flash quickly. Then let go of the button. Wait until the green LED begins to flash slowly.
4. Place 10kg on the cap:
Push the button and hold it until the green LED begins to flash quickly. Let go of the button and wait until the LED stops flashing.
5. Remove the weight again.
If during calibration, the red LED has been flashing, an error has occurred during the calibration process and it should be repeated.
Put the weight/weights on the scale in the same way each time.

6. Mount the rubber plug and cap again.

7 Maintenance

- The scale should be kept free of litter and dirt.
- The scale should be calibrated at least once a year.

The scale is not subject to daily attendance. However, it is important that the settings made in the controller concerning weighing of poultry are correct. Otherwise, the average weight of the birds will not be calculated correctly.

- Check on a regular basis that the number of approved weighings is not less than 100 birds each day.

If the number of weighings falls to less than 100, it may be a result of the settings for search limits and reference weight in the controller not being correct. See also the User's Manual of the controller.

7.1 Batch End - Catching

- Remove the scale before catching.
- Clean the scale thoroughly. It stands heavy cleaning, such as high-pressure cleaning with the cap in place.
- Before disinfection, remove the cap by turning it.
- When using plug connections, remember to mount the dust caps.
- The scale should be stored in a dry room between the batches.



It is important that the scale is removed from the livestock house before catching the birds to ensure that it is not damaged. If multiple scales are placed in the same house, it is important that these are not mixed up when cleaning. Put marks on the scales to ensure that each is connected to the same connector after cleaning.

8 Technical data

Electrical		
Supply voltage	V DC	11 - 30
Power consumption max.	mA	50
Consumption	W	1.5
Load	MΩ	>0.5 - <10
Recommended load	kΩ	>100
Output signal	V	0 kg = 0.5 10 kg = 10.00
Output impedance	Ω	<1
Mechanical		
Cable dimensions	mm	Ø 6.8
Capacity	kg	0-10
Accuracy	%	0.3
Max. overload	%	150 of capacity
Environment		
Temperature, operation	°C (°F)	-10 to +45 (+14 to 130)
Storage temperature	°C (°F)	-25 to +55 (-13 to +131)
Ambient humidity, operation	% RH	0-90
Protection class	IP	65 (spray-proof)
Shipment		
Dimensions H x Ø	mm	670, 220
Weight	g	2000
Shipping weight	g	2500

