

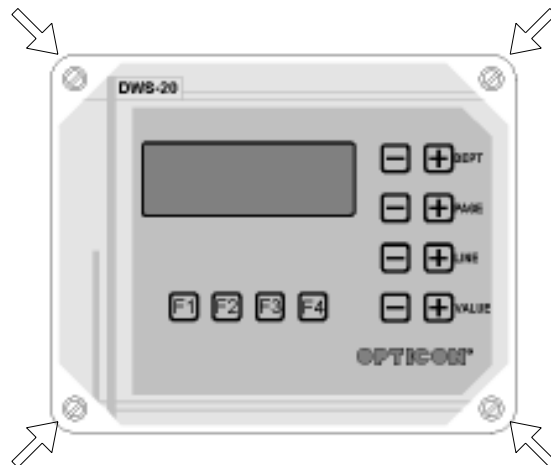
1. Installation of the DWS-20

The installation of the **DWS-20** should be carried out by a qualified electrician according to all applicable codes, laws and regulations. Make sure that the power is off before doing any wiring or opening the controller to avoid electrical shocks and equipment damage. After the installation the installer settings have to be done. You can find a description of these settings in the 'DWS-20 Manual'.

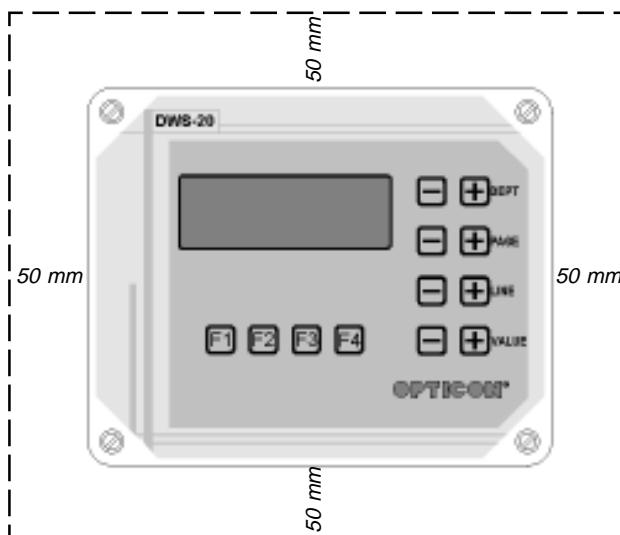
1.1 Mounting the DWS-20

To open the **DWS-20**, one has to loosen the 4 screws at the front.

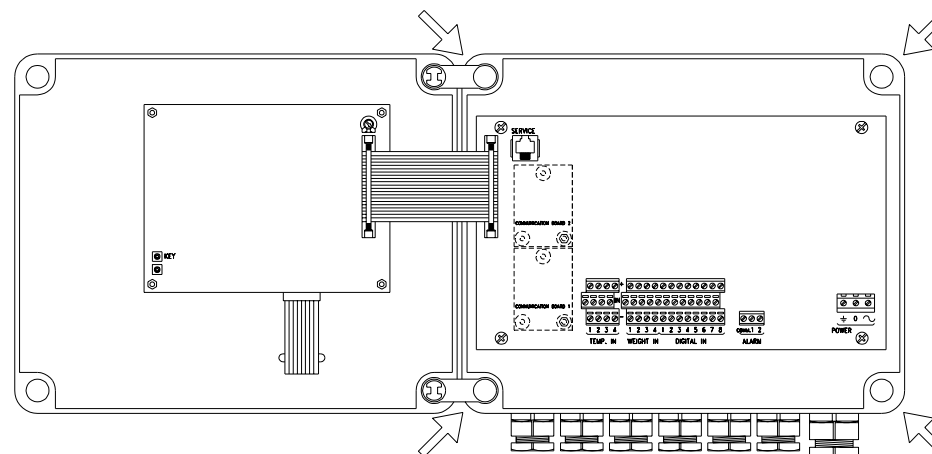
Mount the base unit at a suitable place, and use the 4 holes on each corner of the **DWS-20**. You will find these holes behind the cover holes.



There should be no objects or wall at least 50 mm from each side of the controller to allow enough room for a safe installation.



Use the delivered template to mark and to drill the holes. To mount the base unit use the delivered plugs and screws.



1.2 Cable inlet

The enclosure has a provision for four watertight connectors.



The enclosure will be delivered with seven M20x1.5 watertight connectors, approved according to 'C-UL'. Use these delivered watertight connectors.

1.3 Power supply

It is necessary to install an isolating switch to make it possible to switch off the power supply during installation and service. The isolating switch has to be a bipolar switch. See wiring diagram on page 4 - 7.

No rights can be derived from the text, photos and drawings in this **OPTIGON** Installation document DWS-20'.

general: 0 - 35 °C (32 - 95 °F) / 20 - 80 % R.H.**installation:** on board or wall, entries face down**note:** do not place in direct sunlight

description	connector	to connect	connections	specifications	comments
POWER SUPPLY					
power supply DWS-20 .	POWER	main power supply	 - ground '0' - neutral  - phase	90 264 V AC 50 / 60 Hz	
INPUTS					
temperature sensors	TEMP. IN 1 TEMP. IN 2 TEMP. IN 3 TEMP. IN 4	temperature sensor 1 temperature sensor 2 temperature sensor 3 temperature sensor 4	'+' - white 'S' - green '-' - brown	OPT-10 - 30 °C -- + 100 °C	When cable extended solder the junctions. Maximum line resistance 20 ohm.
frequency inputs	WEIGHT IN 1 WEIGHT IN 2 WEIGHT IN 3 WEIGHT IN 4	scale (ULC-10)	'+' - white (24 V DC) 'IN' - green (4 20 mA) '-' - brown (GND)	frequency 0 - 250 kHz (maximal 100 mA out)	When cable extended solder the junctions. Length maximal 300 m. (3 x 0,5 mm ² / 20 AWG) See 'OPTIGON Installation document ULC-10'.
digital inputs	DIGITAL IN 1 DIGITAL IN 2 DIGITAL IN 3 DIGITAL IN 4 DIGITAL IN 5 DIGITAL IN 6 DIGITAL IN 7 DIGITAL IN 8	water counter (OPT-50) feed counter (OPT-60)	'+' - not connected 'IN' - signal '-' - common	0-5 Hz or static contact (open collector npn or potentialfree contact)	When cable extended solder the junctions. See: -'OPTIGON Installation document OPT-50' -'OPTIGON Installation document OPT-60'
OUTPUT					
alarm output	ALARM	OKA-10	'COMM.' - common '1' - open alarm '2' - closed alarm See page: 3 - 6	DC: min.: 0,01 V, 10 mA max.: 30 V, 1A AC: min.: -- max.: 42 V, 1A	potentialfree make and break contact See 'OPTIGON Installation document OKA-10'.

general: 0 - 35 °C (32 - 95 °F) / 20 - 80 % R.H.*installation:* on board or wall, entries face down*note:* do not place in direct sunlight

description	connector	to connect	connections	specifications	comments
SERVICE					
service input	SERVICE	for the installer for updating the DWS-20 software.			cable: KABEL/006

COMMUNICATION (optional)Communication between **ACT-20** and more than one **OPTIGON** controllers (distance between **ACT-20** and the last **OPTIGON** controller max. 500 m).See 'OPTIGON Installation document COM-12'.
See 'OPTIGON Installation document ACT-20'.Communication between **DWS-20** and PC via a **COM-30** (distance between PC and **DWS-20** max. 3 m).

See 'OPTIGON Installation document COM-30'.

Communication between **DWS-20** and PC via a **COM-50** gsm MODEM.

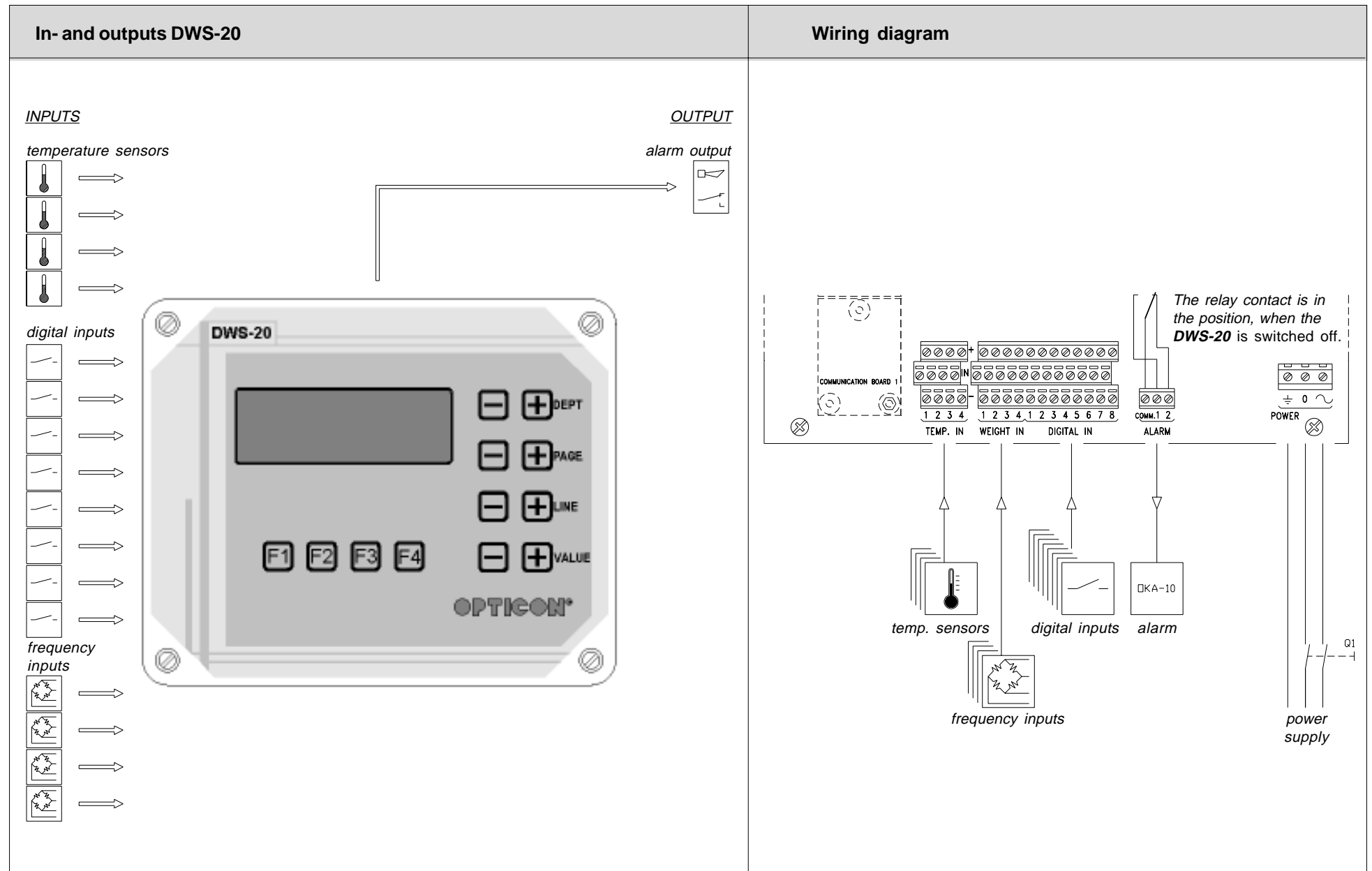
See 'OPTIGON Installation document COM-50'.

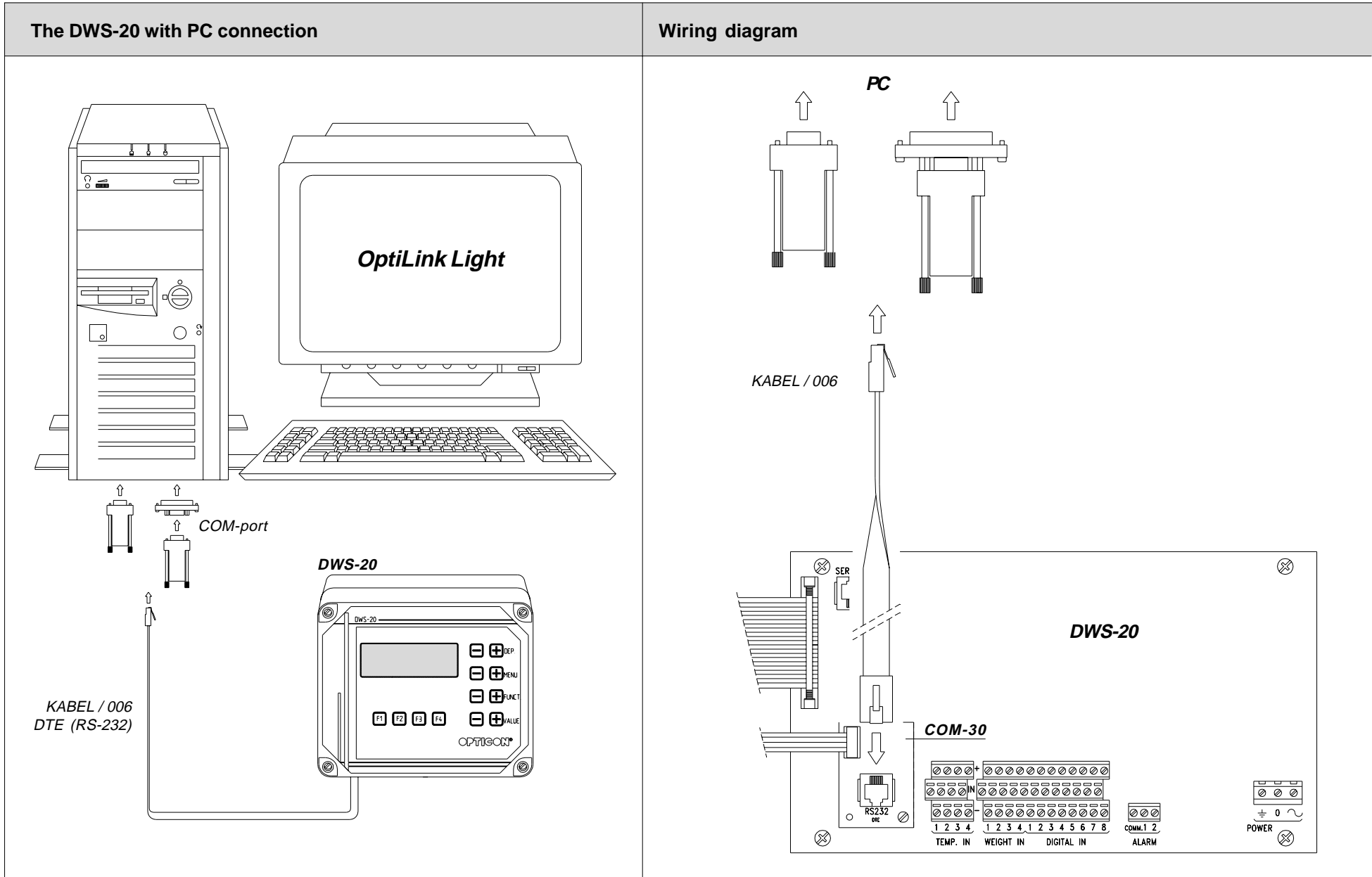
Communication between **DWS-20** and PC via a **COM-51** analog MODEM.

See 'OPTIGON Installation document COM-51'.

Communication between **DWS-20** and **RSC-30** (distance between PC and **DWS-20** max. 500 m).

See 'OPTIGON Installation document RSC-30'.





The DWS-20 with PC connection using a RSC-30

