

Installation guide

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IP201



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1 Mounting

Typically, the module is supplied mounted directly in RF Concentrator or similar equipment.



Example of mounting in RF Concentrator

2 Connection

The IP201 module has no built-in encryption, and therefore it should always be placed behind a firewall or NAT (Network Address Translation).

3 Configuration

The IP201 module is always supplied configured with either default IP settings or custom IP settings. These settings can be changed subsequently by using **IP Tool**, which can be obtained by contacting Kamstrup.

It is possible to use either dynamic or static IP addresses, and it is possible to order with the following settings:

Dynamic IP address (DCHP):

Host server name *(the DNS name or IP address of the server to which the unit must report back)*.

Static IP address:


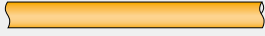


IP address, subnet, gateway *(network settings of the module)*.

Host server *(the IP address of the server to which the device must report back)*.

4 Ethernet connection





The Ethernet connection on IP201 consists of a standard 4-pole screw terminal.

The terminal is connected according to the below table for connection to hub, switch or router, etc.:

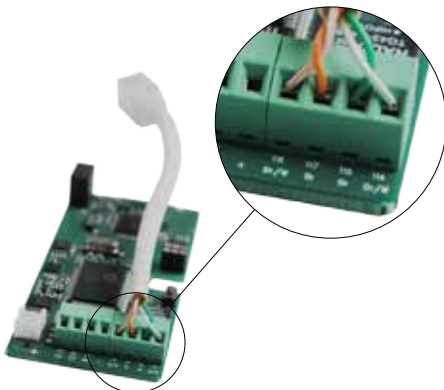
Terminal no.	T-568B colour code		Signal	MCU
114 / 116	Orange / White		Ethernet Tx+	RE4, RE5
115 / 117	Orange		Ethernet Tx-	RE6, RE7
116 / 114	Green / White		Ethernet Rx+	RG5
117 / 115	Green		Ethernet Rx-	RG4

- ▶ Terminal number.
- ▶ **Silk screen print on 5550844 rev. G.**

For connection directly to PC (also possible on hub, switch, etc. with auto sense of crossed connection):

Terminal no.	T-568B colour code	
114 / 116	Green / White	
115 / 117	Green	
116 / 114	Orange / White	
117 / 115	Orange	

- ▶ Terminal number.
- ▶ **Silk screen print on 5550844 rev. G.**



Ethernet connection

5 Installation

When supply has been established, the Err and Wink diodes are lit to indicate that the module is switched on. The Link diode lights/flashes if the RJ45 cable is mounted (communication on the network is indicated by flashes).

During start-up, the Err and Wink diodes are used for controlling the state of the module:

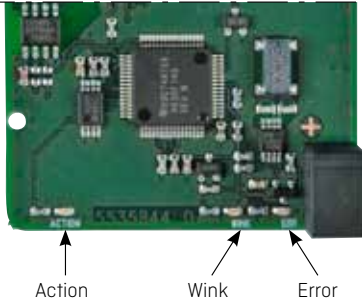
- 1 Err and Wink emit light constantly: The module has just started.
- 2 The Wink diode turns off when the module has established connection to the network (valid IP).
- 3 The Err diode starts flashing when the host is recognised (meter or concentrator have been detected).
- 4 The Err diode turns off when the module has been registered by the collecting server.

If the module cannot connect to the meter and/or server, IP201 will restart.

Start-up		ACT/LINK	WINK	ERR
Power UP		Off	On	On
LAN connection		On/flash	-	-
		↓ ~3 sec (depending on DHCP srv), ~0 sec if static IP is used.		
Valid IP		On/flash	Off	On
		↓ 15-20 sec.		
Host recognised (meter/conc)		On/flash	Off	Flash
		↓ 20 sec (depending on AMR system).		
Ack from server		On/flash	Off	Off

Ethernet connection		ACT/LINK	WINK	ERR
No Ethernet		Off	-	-
LAN OK – idle		On	-	-
LAN OK –data activity		Flash	-	-

6 Localization of light-emitting diodes (extract of the module)



7 Status LEDs

The module has a number of light-emitting diodes. They are used for indicating the status and service.

7.1 Action

The Action diode indicates network activity. During normal operation, this diode lights/flashes.

Turned off: The module does not connect to the network. Check that the cable is connected correctly.

Flashing: Data is detected on the network. [the faster the flashing, the more traffic].

Steady light: The module is connected, but there is no traffic on the network.

7.2 Wink

The Wink diode is used for indicating the module's conditions in three situations:

Start-up: The Wink diode is lit until a valid IP address is found.

Localization: The Wink diode flashes.

Service: By pressing the service button, the Wink diode is lit. The Wink diode is lit while the module is in service mode.

7.3 Err

The Err diode is used for indicating irregularities.

Steady light: The module has just started and is waiting for an IP address.

Flashing: The module has not yet recognised the unit in which it is mounted (the host)

Turned off: Normal situation.

7.4 The service button

The service button is used by Kamstrup in connection with service and reprogramming of the module.

8 Port B

Port B is a serial [RS232/Kamstrup 3-wire] connection that can be used for connecting additional external equipment.

For instance:

- Connection of additional RF concentrator

Port B is always configured for 9600,8,N,1.

9 Module overview

