kamstrup

Installation guide

IP201

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Contents

1 Mounting

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

Example of mounting in RF Concentrator

2 Connection

The IP 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

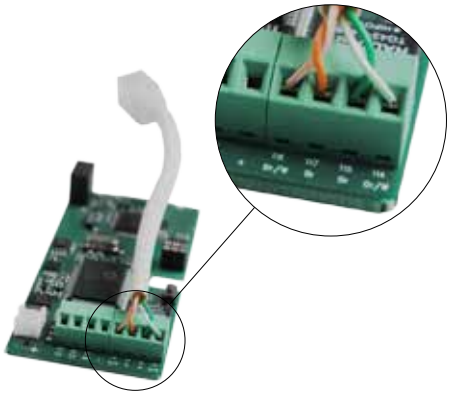
The Ethernet connection on IP201consists of a standard 4-pole screw terminal.

Connection to switch, router or hub:

Terminal block No. on the PCB	T-568B Colour code	
114	Green / White	
115	Green	
117	Orange	
116	Orange / White	

Connection to PC:

Terminal block No. on the PCB	T-568B Colour code	
114	Green / White	
115	Green	
117	Orange	
116	Orange / White	



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:

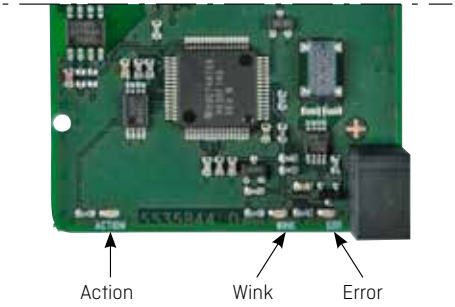
1. Err and Wink emit light constantly: The module has just started.
2. The Wink diode turns off when the module has established connection to the network (valid IP).
3. The Err diode starts flashing when the host is recognised (meter or concentrator have been detected).
4. The Err diode turns off when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