# All-in-one

# PingBrother®

is watching your devices

PingBrother is a great multifuncti-onal tool for unattended network devices such as IP cameras, Wi-Fi radios, VoIP devices and switches, especially those which have Power over Ethernet (PoE) support. It can be used as a PoE injector or distributor which supervises the connected devices (ping or http availability, temperature, voltage, current consumption, moisture detection). If a trigger event occurs, PingBrother gives a user-defined response, such as resetting or turning the device on/off, switching the relay contact, making log entries and sending an e-mail.

POE distributor / injector

Ethernet switch

IP watchdog

Remote monitoring

Remote managemant

Techical data comparsion table

| Model | EPIW104 | EPIW104F | EPIW104P |
|---|---|---|---|
| Input operating voltage (via connector or POE) | 8-56V DC or 9-42V AC | | |
| POE output voltage on all ethernet port | 8-56V DC or 9-42V AC (standard, or non-standard POE, pairs 4,5+; 7,8 return) | | |
| Total max. current load | 6A | 6A | 6A |
| Max. current on each eth. port | 1.5A | | |
| Max. self Power Consumption of the device | 8W | | |
| Number of 10/100 POE capable eth port | 4 | 4 | 4 |
| 3-pol terminal block of Change-over relay | 4 | 4 | 4 |
| POE operating mode selection slide switch | 4 | 4 | 4 |
| Plug-in2-pin terminal block power connector | 1 | 1 | 1 |
| Led indicators | 4x3 | 4x3 | 4x3 |
| Case material | steel | | |
| Safety | CE/EN60950 | | |
| Operating Temperature | -30 to +80 C | | |
| Operating Humidity | 5 to 90% Non-condensing | | |
| Shock and Vibration | IEC60068-2-27, IEC60068-2-6 | | |
| Dimensions | 149 x 81 x 35 mm | | |
| Product weight | 427 g | | |
| Services, events, actions | | | |
| Web based GUI | yes | yes | yes |
| IP address | IPV4 static or dhcp | | |
| Protocols | TCP/IP, HTTP, *SNMP, ICMP, IGMP | | |
| Specifications | IEEE802.3, IEEE802.3u, IEEE802.3x | | |
| Packet features | 2k MAC address, 384kbit packket buffer memory, max. packet lenght: 1552/1536 bytes | | |
| Watched IP address about loss of ping or http | 4 | 4 | 4 |
| Internal and external watchdog | yes | yes | yes |
| Action: POE on/off | yes | yes | yes |
| Optional moisture detector | no | no | yes |
| Action: relay toggle | yes | yes | yes |
| Action: email sending | yes | yes | yes |
| Input voltage measurement | yes | yes | yes |
| Actions due to change of input voltage | yes | yes | yes |
| 4 port POE current measurement | no | no | yes |
| Actions due to change of current or power | no | no | yes |
| Internal temperature measurement | yes | yes | yes |
| External temperature measurement | no | yes | yes |
| Actions due to change of temperature | no | yes | yes |

* limited SNMP functionality update now available (channels can be monitored, but temperature readings not accessible at this time)

# Application examples

Drawing explanation: ———— ethernet data wire  ———— power wire  ———— POE (data+power) ethernet wire

## 1. PingBrother * as a power injector



network

POE wireless

POE IP cameras
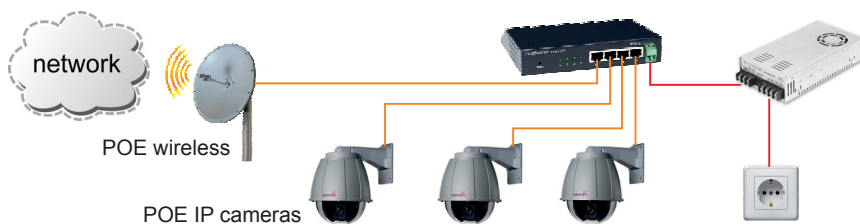
PingBrother * receives power from a plug-in terminal block connector, and powers all the connected devices (max. 4) over an ethernet cable. Power supply output must be calculated according to the total current load of the connected PoE devices. In case of a failure, PingBrother automatically reboots the dysfunctional equipment. It writes a log entry about its action and if set, sends an e-mail.

## 2. PingBrother * as a power distributor



POE IP cameras

POE injector

network
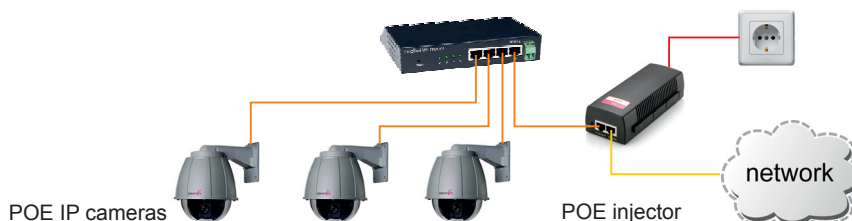
PingBrother * receives power through its own first ethernet port and powers all the connected devices (max. 3) over an ethernet wire. Power injector output must be calculated according to the total current load of the connected POE devices. In case of failure automaticly reboots the dysfunctional equipment. It writes a log entry about its action and if necessary sends an email. Manual remote management is also possible (on, off, reset) via network or Internet.

## 3. PingBrother * as a power manager of non POE devices



Non POE device

either
or

POE injector

network
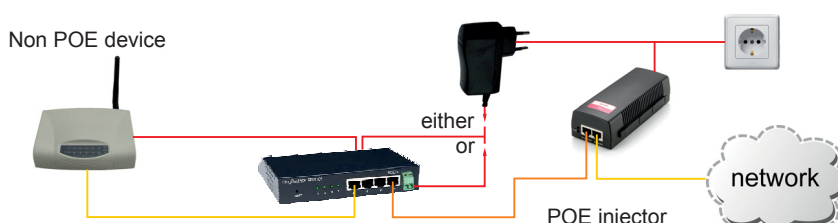
PingBrother * has two or four 3-pol terminal blocks of Change-over relays. Using these, we can control the power of a non-PoE device or any other on/off controlled circuit. It is also possible to gain power from the POE input of the plug-in terminal block power connector of any equipment (PoE power separator function). For the EPIW104P an optional moisture sensor is available wich can switch or send an email in case of water leakage or condensation.

## 4. PingBrother * as a failover backup controller



Main VOIP PBX

Reserve VOIP PBX

POE injector

network
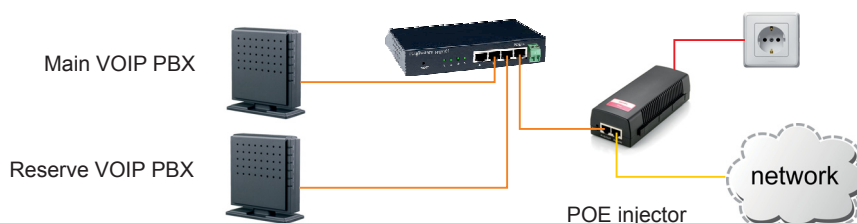
PingBrother * can work as a fail-over backup controller. This means that it can switch to a reserve equipment in case of a device error. If you have a very important service running on your device, and you set up a reserve with the same services, even on the same IP address, PingBrother can turn the faulty one off and the reserve one on in case of a failure. The controlled equipment can be PoE or non-PoE device as well.

## 5. PingBrother * as an ethernet extender



EPIW104    EPIW102    EPIW102    POE injector

◄————————— 300 m —————————►
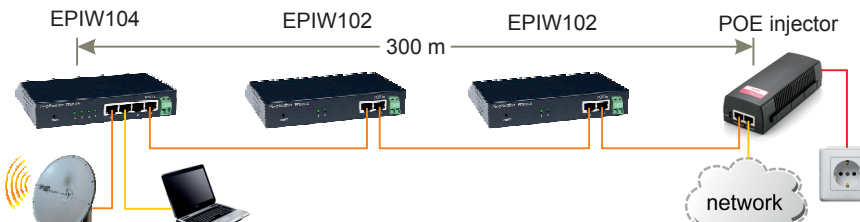
network

PingBrother * can extend the distance of your 10/100 ethernet cable network up to five times. To achieve this, you have to install a PingBrother every 100 meters. (EPIW102 if you only want to extend the wiring, or EPIW104 if you want to connect them to the network, too). Furthermore, you do not need to power these extensions, as the whole network is powered over ethernet.

## 6. PingBrother * as an input voltage and/or overload and/or overheating supervisor (only    EPIW104P)



network

POE wireless

POE IP cameras
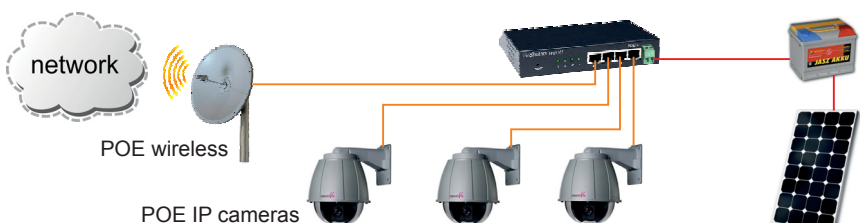
PingBrother * (model: EPIW104P) can measure the input voltage and the current load on the PoE ethernet ports, the internal temperature of the device and the surface temperature of an object. As an example, you can watch the voltage of a solar power system, and if the voltage drops below a critical level, PingBrother can turn off the less important equipment and send a warning e-mail.

Streakwave