



PingBrother®

is watching your devices

PingBrother is a great multifunctional 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.



Technical data comparison table

Model	EPIW102	EPIW104	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 Power Budget	30W	60W	120W
Max. self Power Consumption of the device	8W		
Max. Power Consumption on each eth. port	15W		30W
Number of 10/100 POE capable eth port	2	4	4
3-pol terminal block of Change-over relay	2	4	4
POE operating mode selection slide switch	2	4	4
Plug-in2-pin terminal block power connector	1	1	1
Led indicators	2x3	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 packet buffer memory, max. packet length: 1552/1536 bytes		
Watched IP address about loss of ping or http	2	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	no	no	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	no	yes
Actions due to change of temperature	no	no	yes

Application examples

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

1. PingBrother® as a power injector

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

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 automatically 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

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 which can switch or send an email in case of water leakage or condensation.

4. PingBrother® as a failover backup controller

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

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)

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.