

# **FEMS**

# technical documentation

Last change: 22.03.2018

#### 1. Permanent internet connection

A permanent internet connection is required.

Offline operation is also possible after consultation. In this case, the connection to the FENECON online monitoring is deactivated and individual functions are no longer available.

## 2. Network configuration via DHCP

In the standard configuration, FEMS obtains the network configuration via a DHCP server. If a static IP address is to be configured, this can currently only be realised via remote maintenance. To do this, please connect the FEMS to an Internet access where DHCP is available and contact us. We then need the following information from you:

- Requested IP-Adress
- Netmask
- Gateway
- DNS-Server

#### 2. Firewall

The following services run on the FEMS and require an Internet connection to the respective destination addresses and ports.

Service	Destination address (n)	Destination port
DNS	(IP of the DNS server assigned by DHCP)	53 (DNS)
FENECON Package updates	134.119.8.25 (fenecon.de)	80 (HTTP)
Operating system package updates	141.76.2.4 (ftp.de.debian.org)	80 (HTTP)
Operating system security updates	212.211.132.250, 195.20.242.89, 212.211.132.32 (security.debian.org)	80 (HTTP)
Online-Monitoring	134.119.8.25 (fenecon.de)	443 (HTTPS)
Time synchronisation	134.119.8.25 (fenecon.de)	123 (NTP)
Remote maintenance	134.119.8.25 (fenecon.de)	2222

### 3. System-Update

As part of the system update, the latest software is downloaded from fenecon.de and installed. The system update takes place once a day at around 5 am.