

**CLASSAX-V**

# **Programming the Loop Detector VEK M4D**

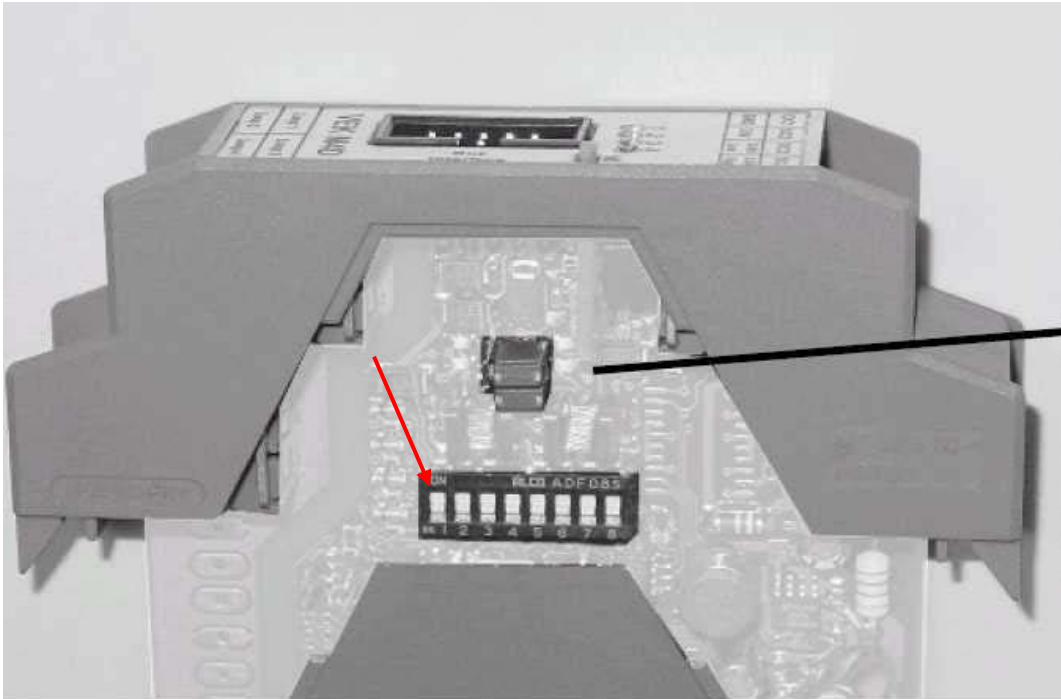


Sensor Line - Gesellschaft für  
optoelektronische Sensoren mbH  
Carl-Poellath-Str. 19  
D-86259 Schrobenhausen  
- Germany -  
Tel.: +49 (0) 8252 / 8943-0  
Fax.:+49 (0) 8252 / 8943-11  
Email: [sensorline@sensorline.de](mailto:sensorline@sensorline.de)  
[www.sensorline.de](http://www.sensorline.de)

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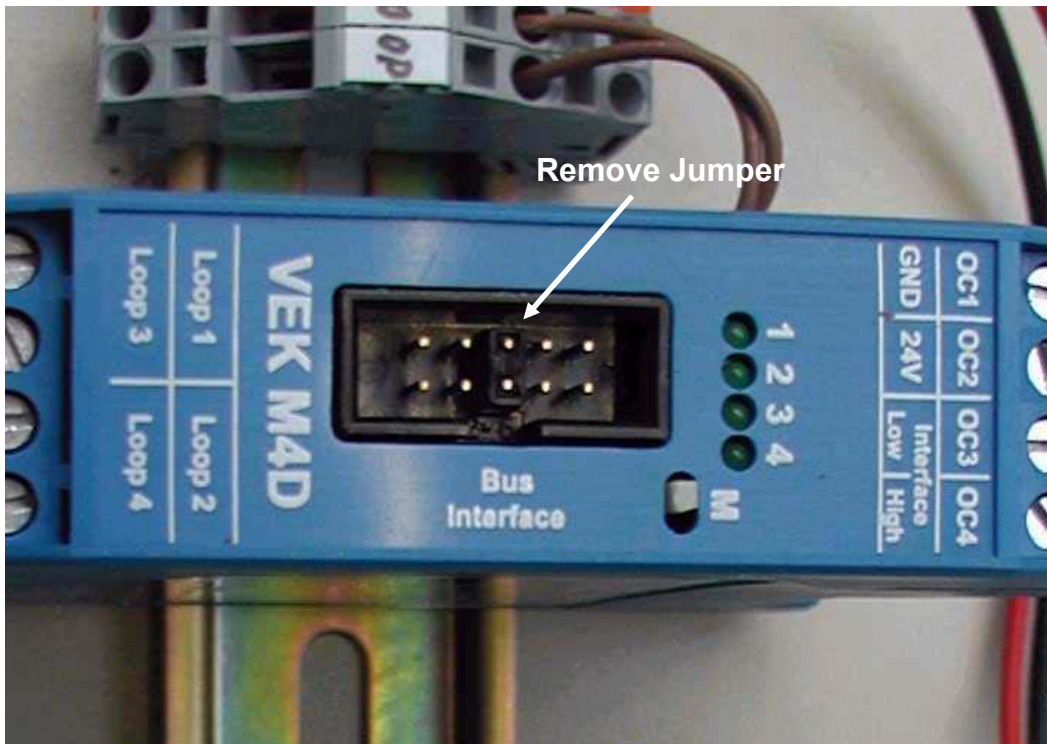
## 1. Hardware Settings

### 1.1 Set Bus Address



Open housing as described in section 4.2 of the manual. Set Way 1 of the DIP switch to ON, all others to OFF. Leave Jumpers in place (as shown). Close housing.

## 1.2 Disable Talk-Only Mode



Remove jumper installed in middle position of the "Bus Interface" header on top of the loop detector.

## 1.3 Establish RS-485 connection with PC

Connect loop detector to PC via a simple RS-485 adapter. The MD-440 is only listening and will not affect communication. Do not use interfaces with buffering capabilities, for example a so-called "serial host" for Ethernet but only simple level converters to avoid timing issues.

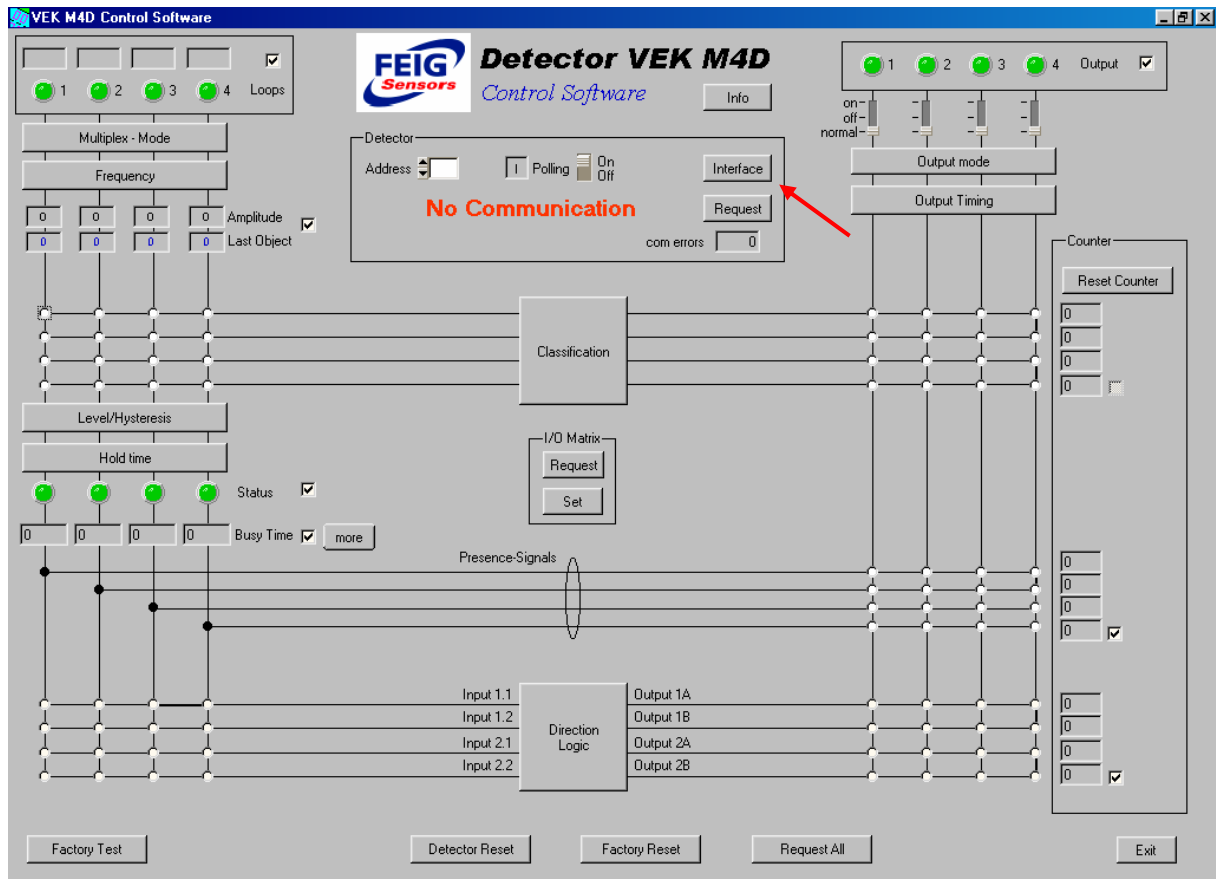
Power detector up.

## 2. Software Settings

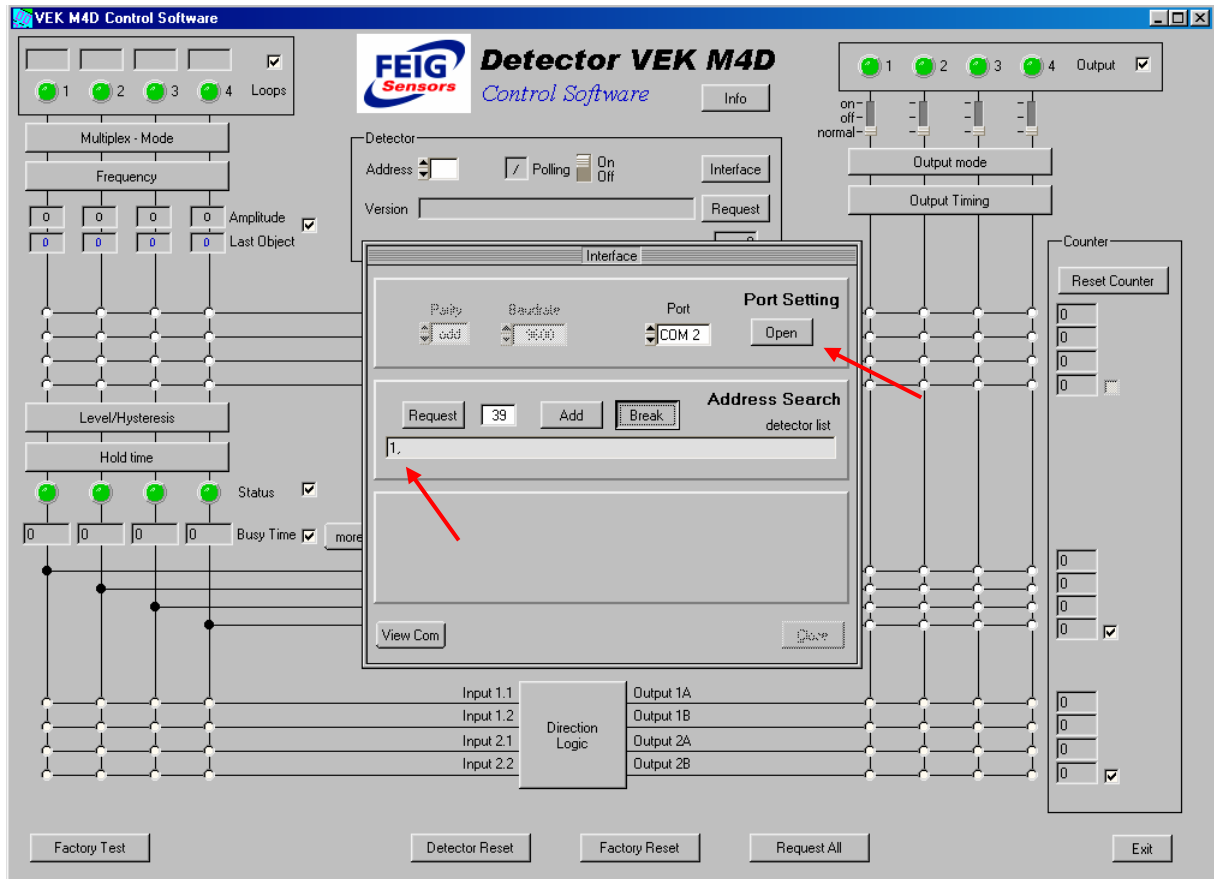
### 2.1 Start Setup Program

Launch program "M4DCOM".

### 2.2 Establish Communication

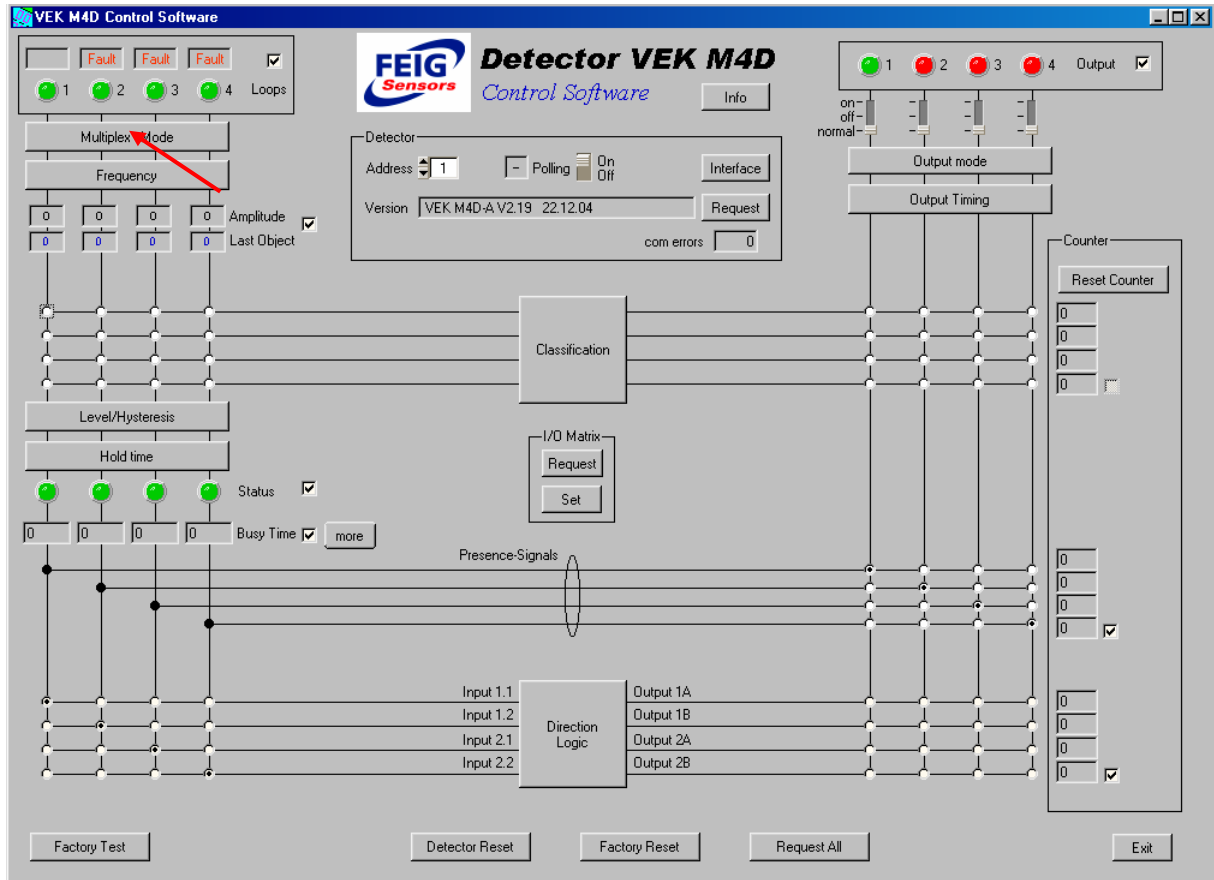


Click "Interface"

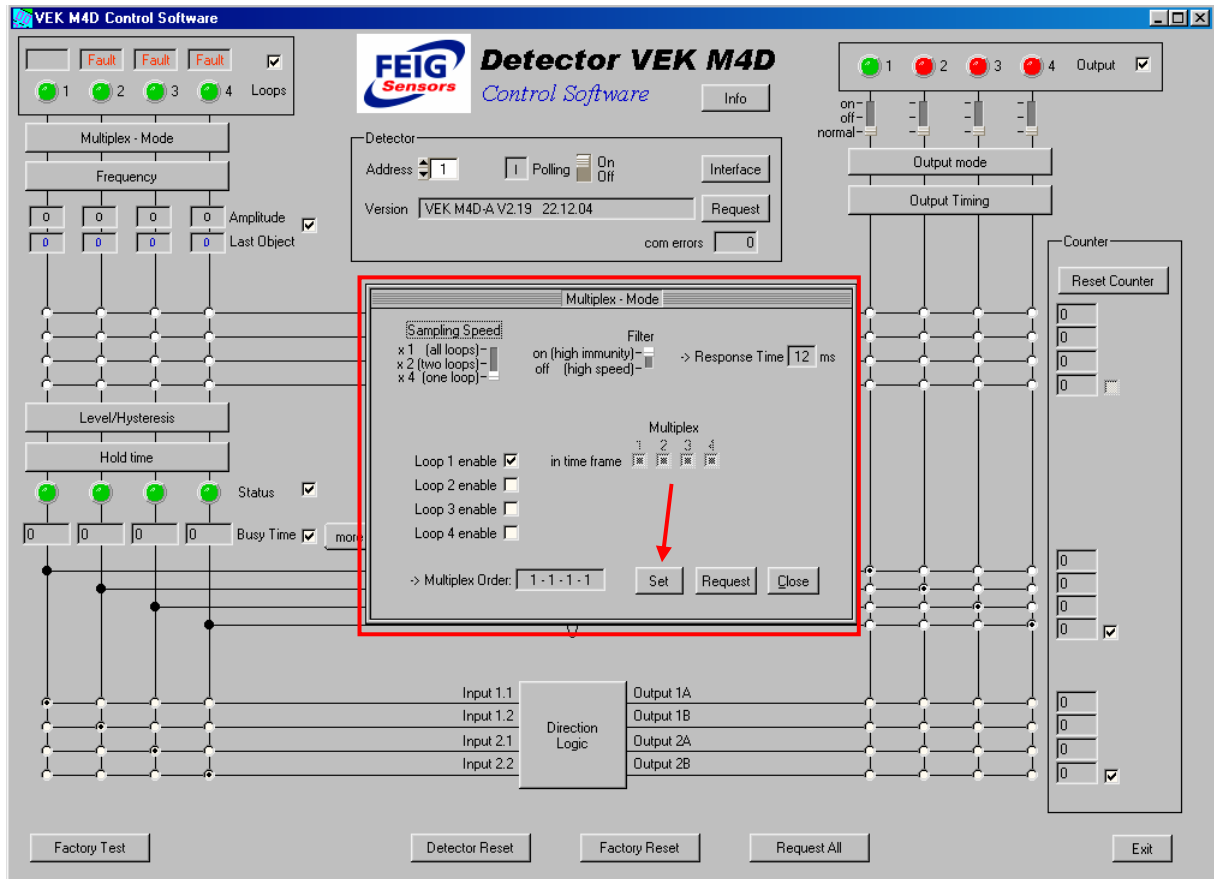


The program will now scan the bus for detectors. If everything is ok, it will find Detector 1. If necessary update "Port Setting". Required parameters are 9600,8,E,1 (even parity!)

### 2.3 Switch Off Unused Loops

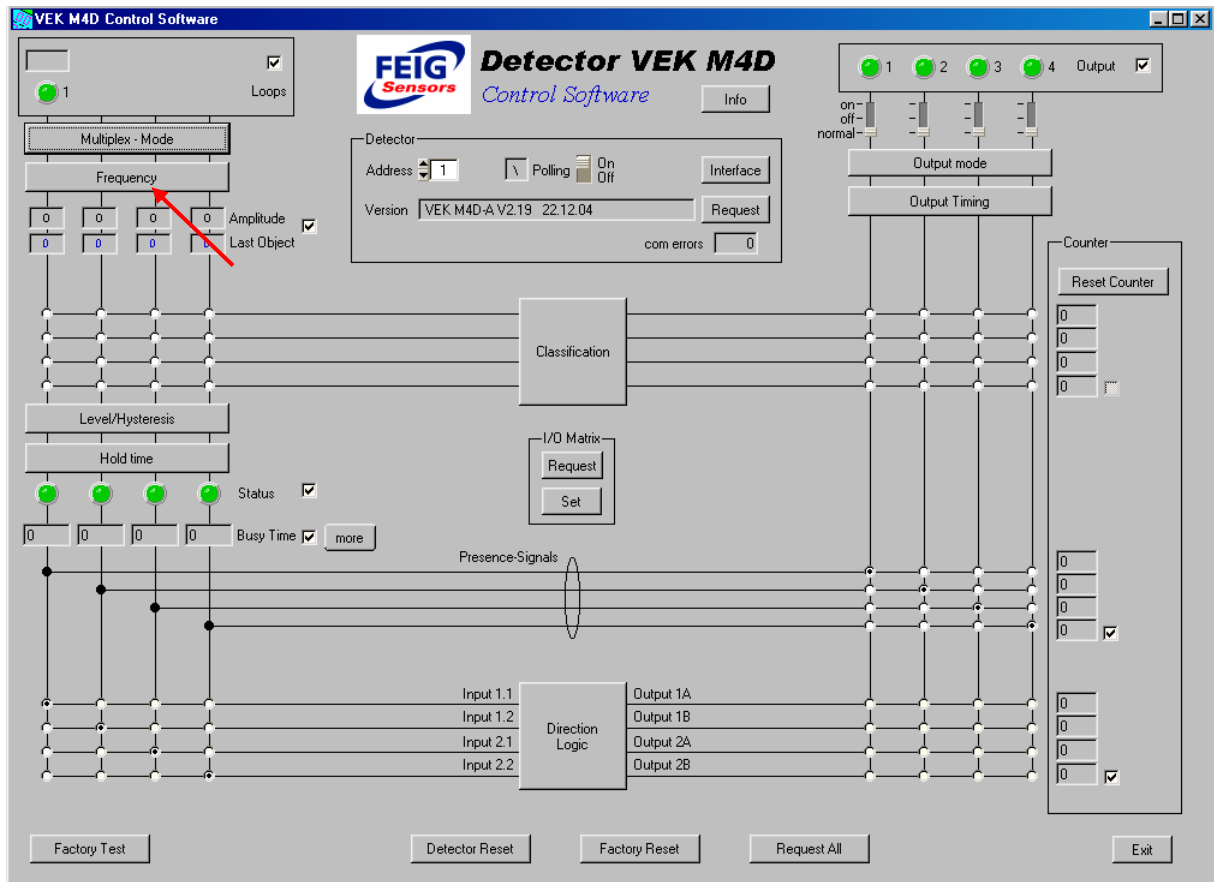


When the program has recognized failure of loops 2-4, click "Multiplex-Mode".

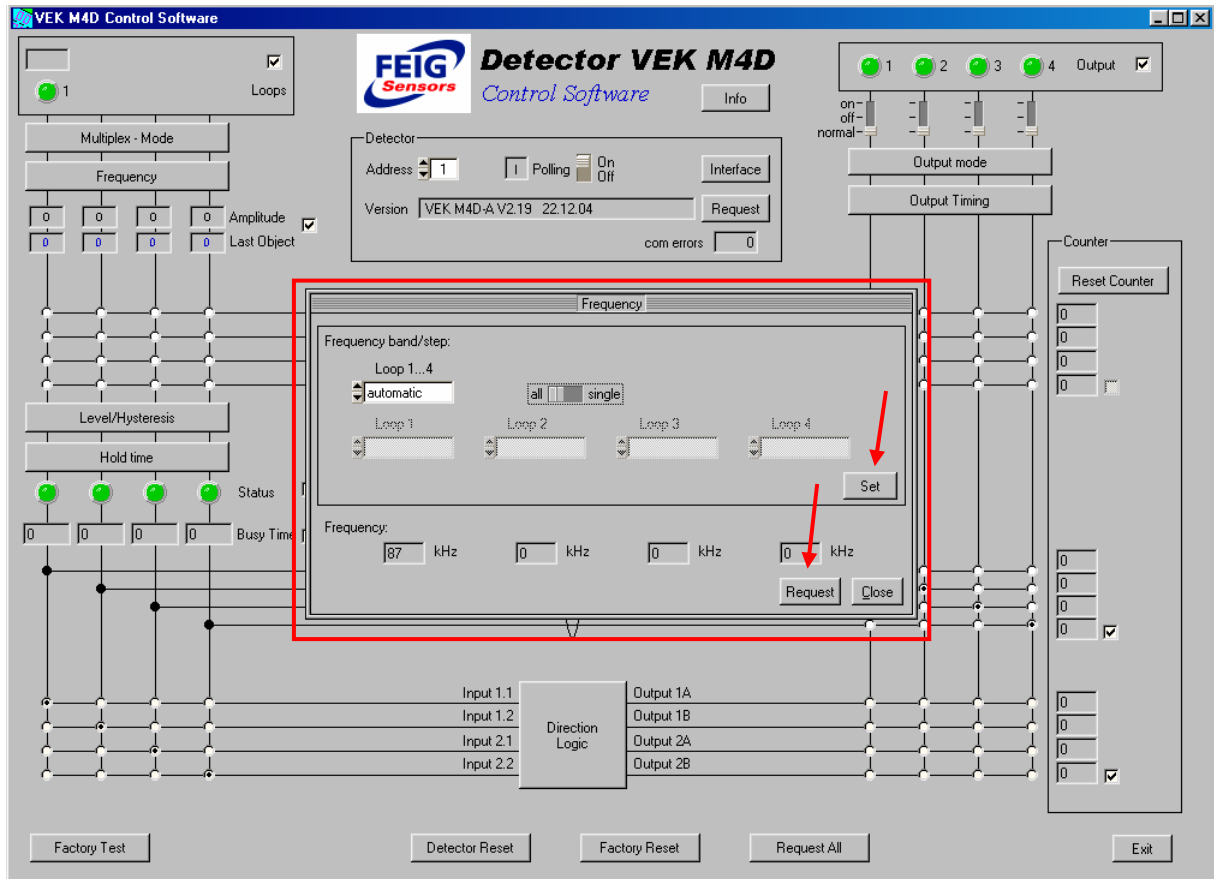


Disable loops 2-4, set sampling speed to "x4" and Filter to "ON". Click "Set".

## 2.4 Check Frequency



Click "Frequency"

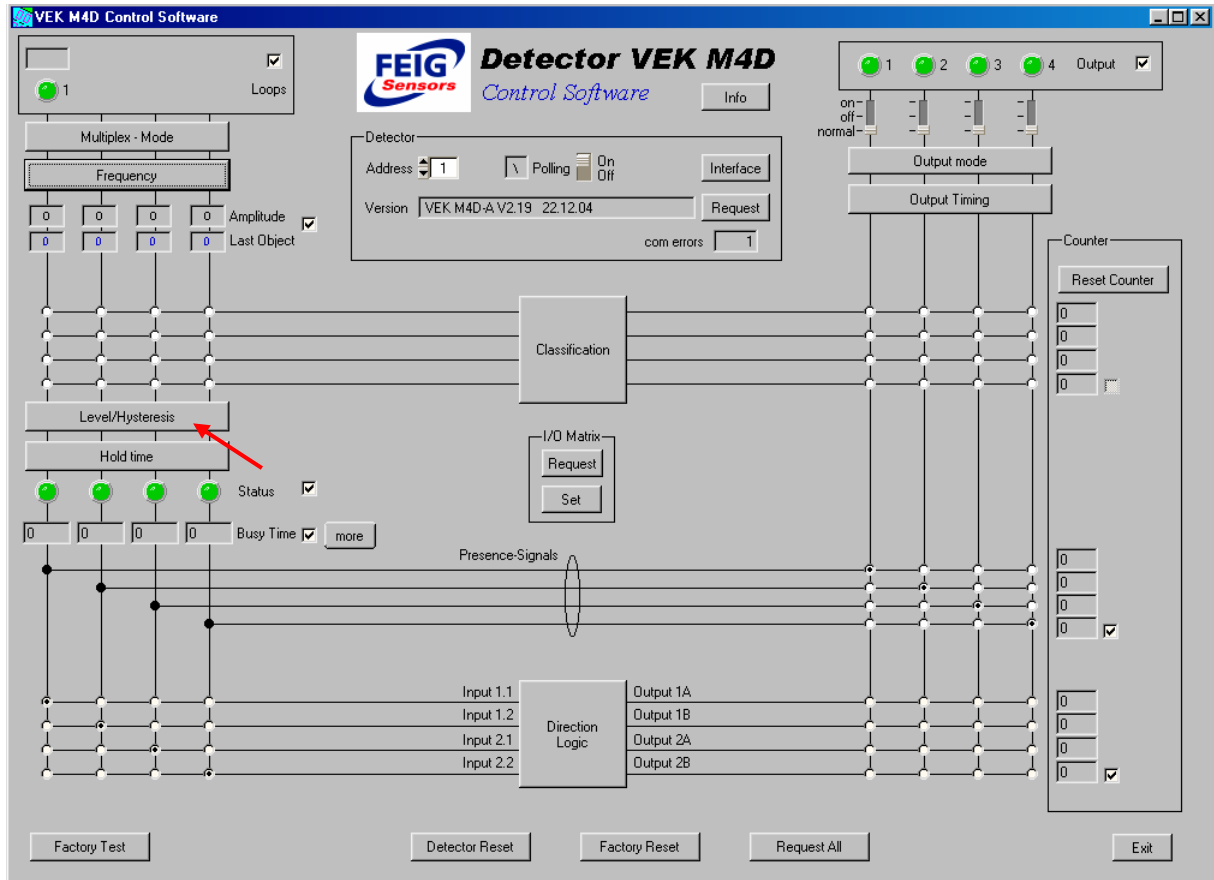


In case loop 1 has configured correctly and LED1 is not flashing just verify setting under "Loop 1..4" to be "automatic".

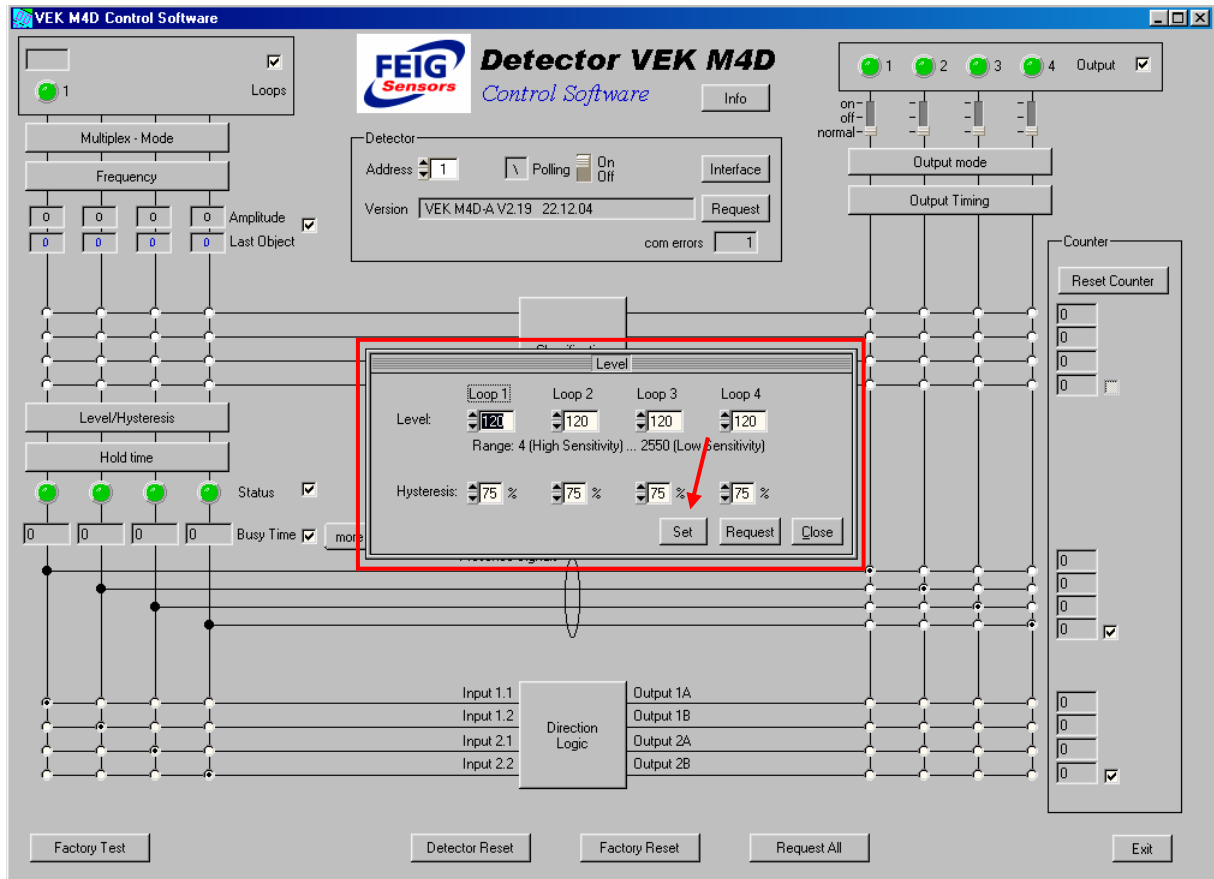
Otherwise select frequency band under "Loop 1..4", click "Set" and then "Request". Repeat this step with different selections until frequency within selected band is displayed under "Frequency" and LED1 stops flashing.

If several systems are in use select different frequency bands for adjacent loops.

## 2.5 Set Level/Hysteresis

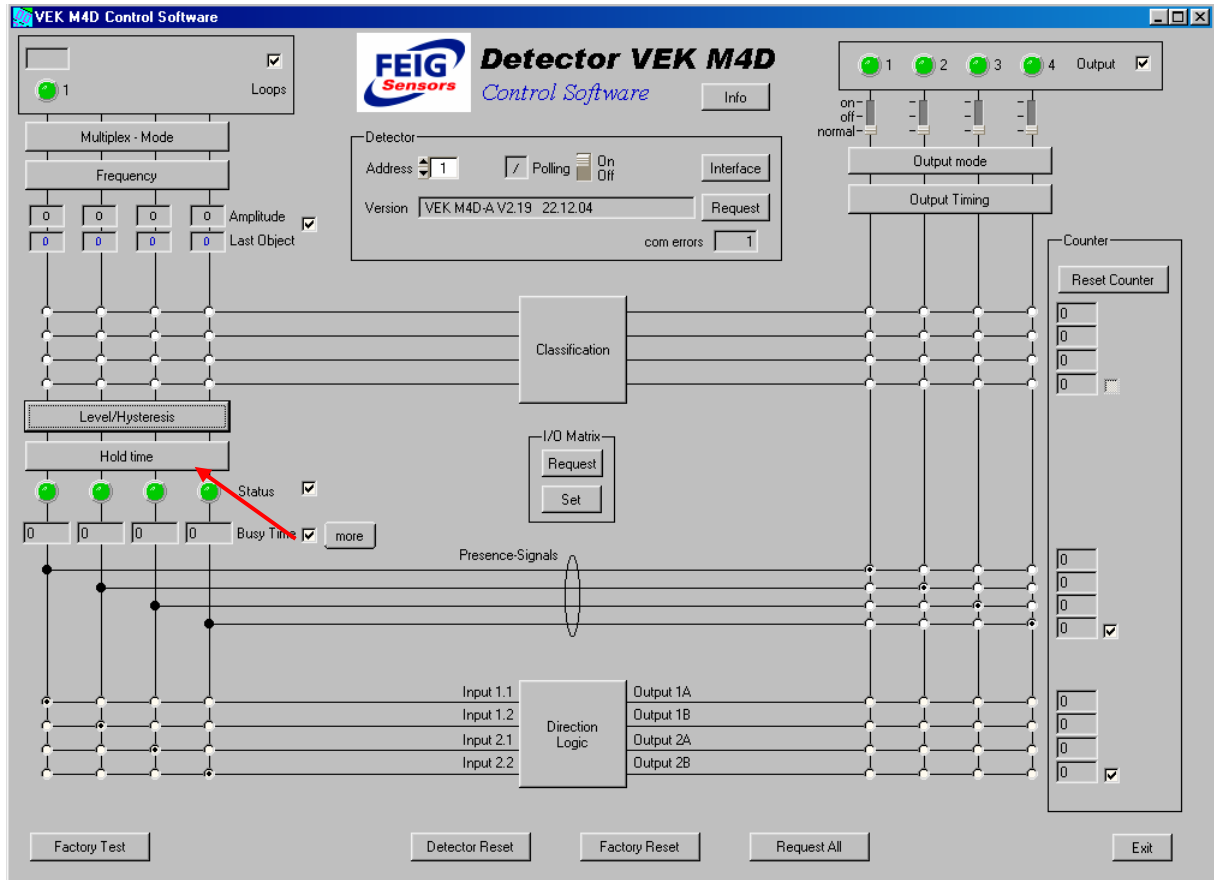


Click "Level/Hysteresis"

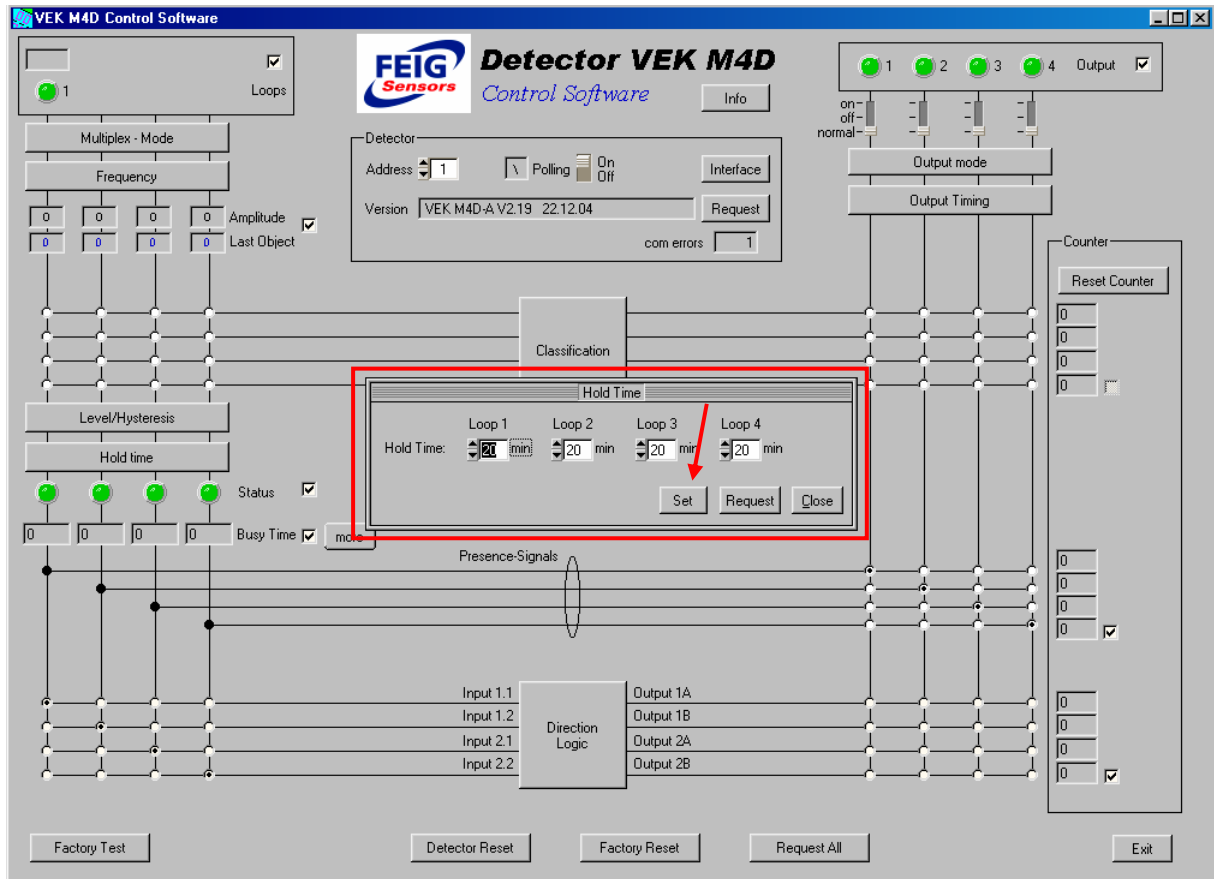


Change setting "Loop 1" to "Level: 40" and "Hysteresis : 75%". Click "Set".

## 2.6 Check Hold Time

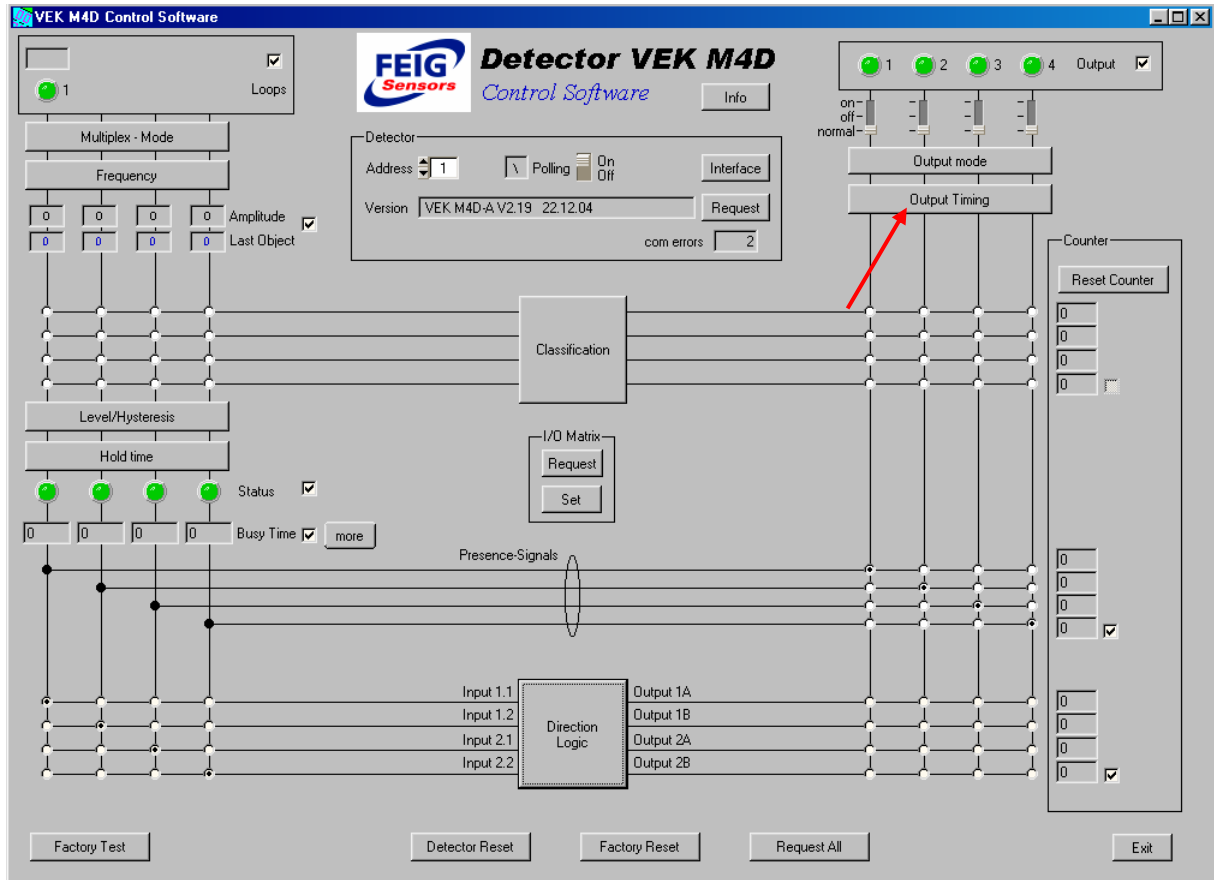


Click "Hold Time".

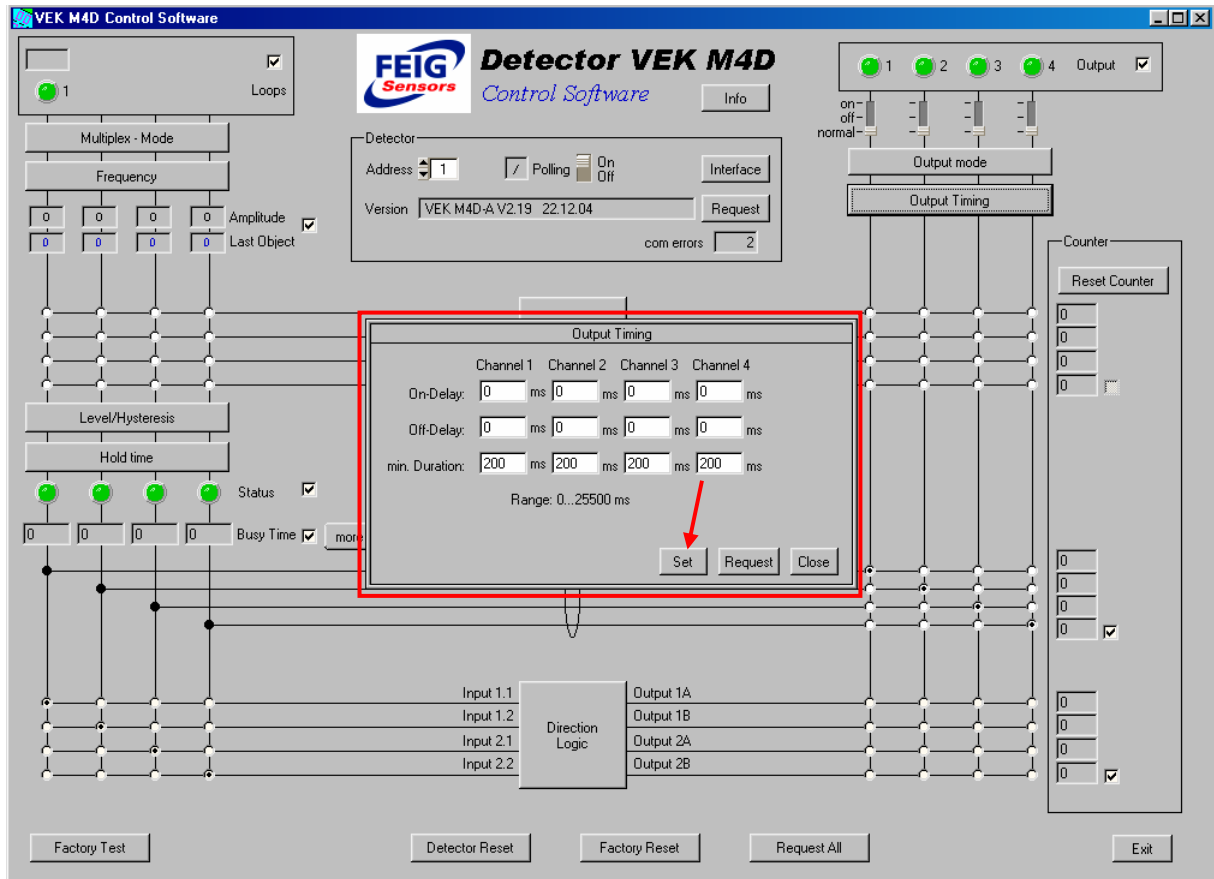


Verify that Loop 1 is set to "20 min". In case of changes click "Set".

## 2.7 Check Output Timing

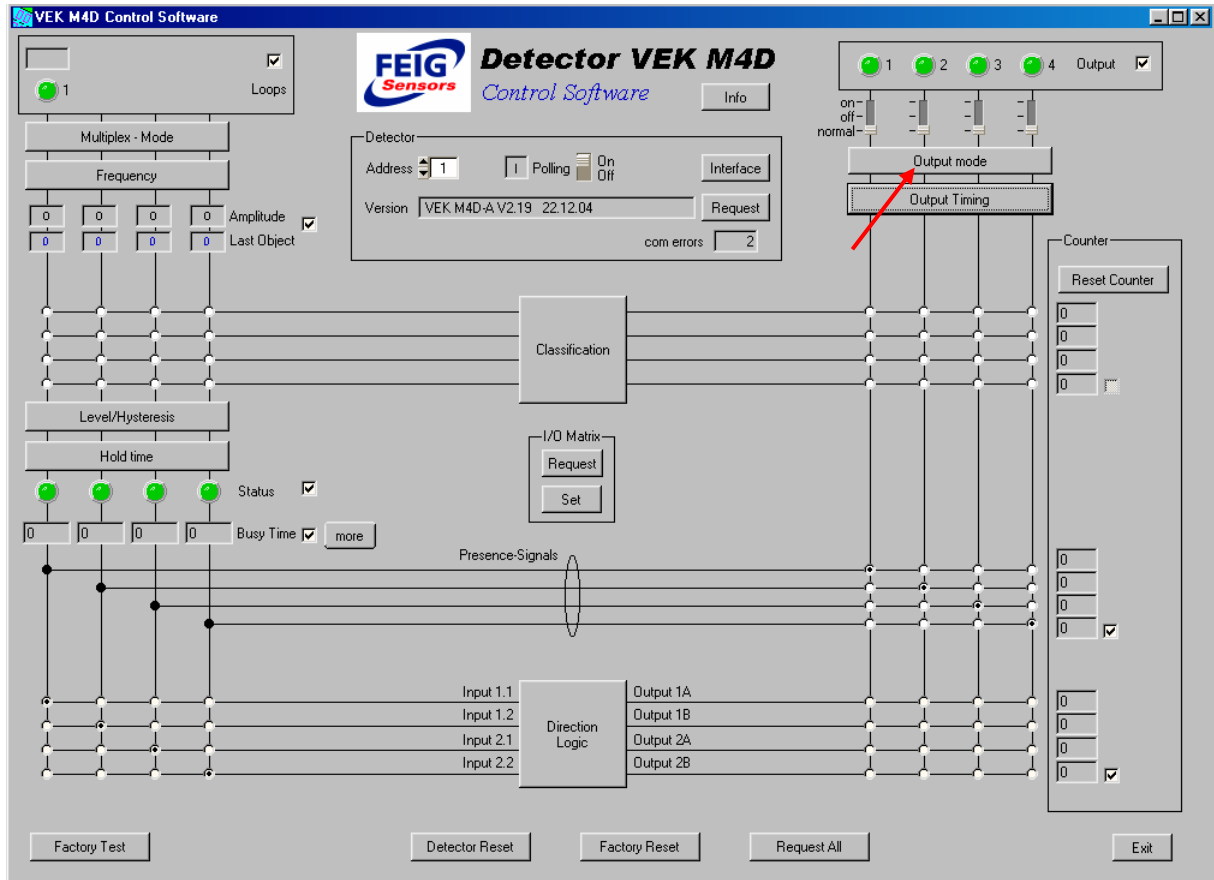


Click "Output Timing"

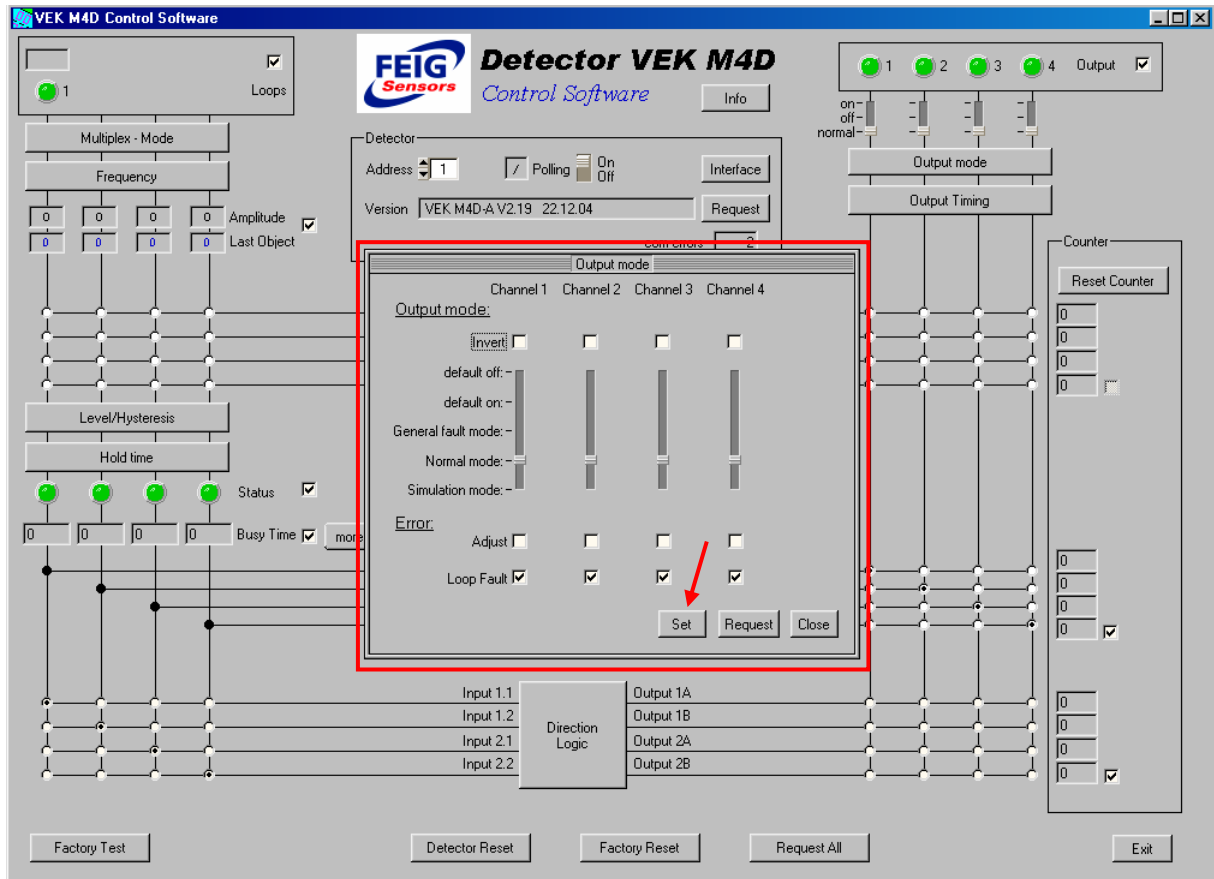


Set all channels "On-Delay: 0ms", "Off-Delay: 0ms" and "min. Duration: 200ms". In case of changes click "Set".

## 2.8 Check Output Mode

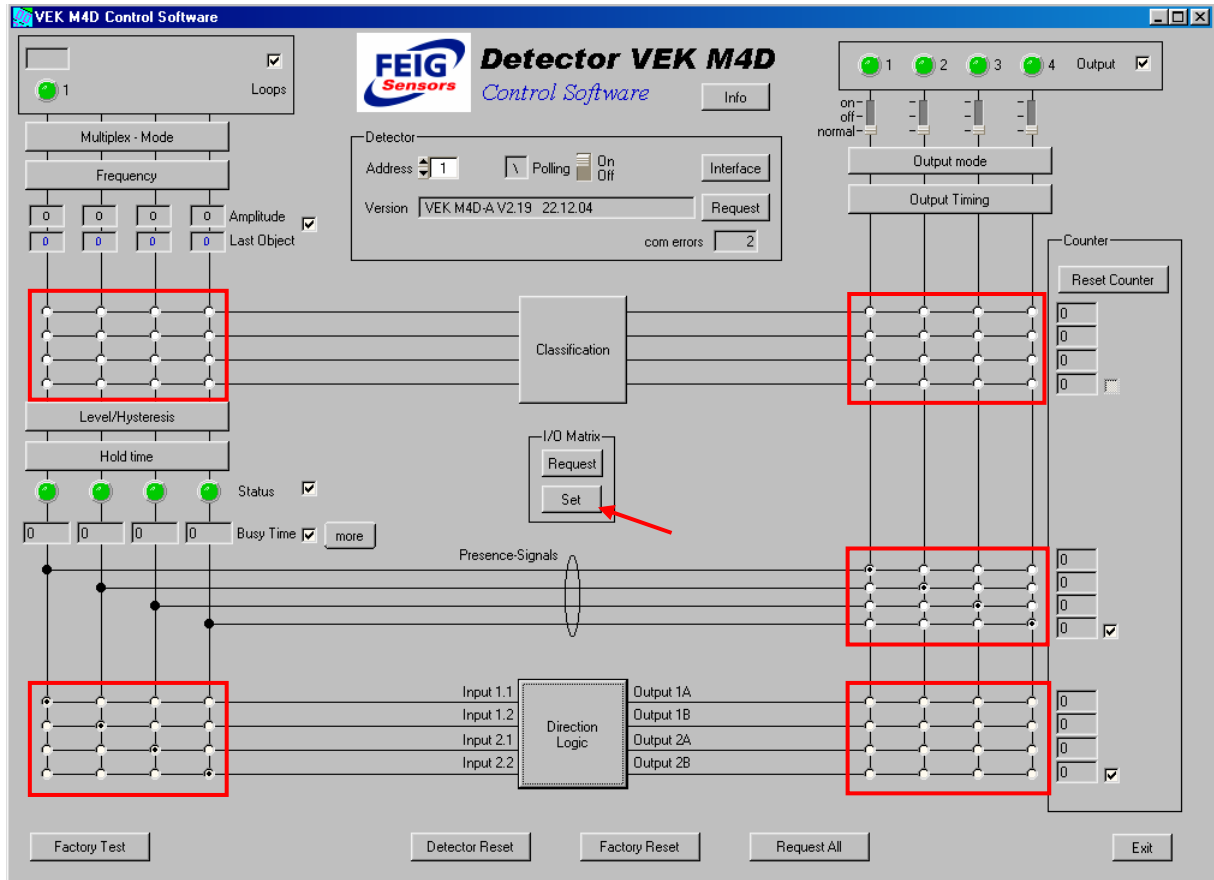


Click "Output Mode".



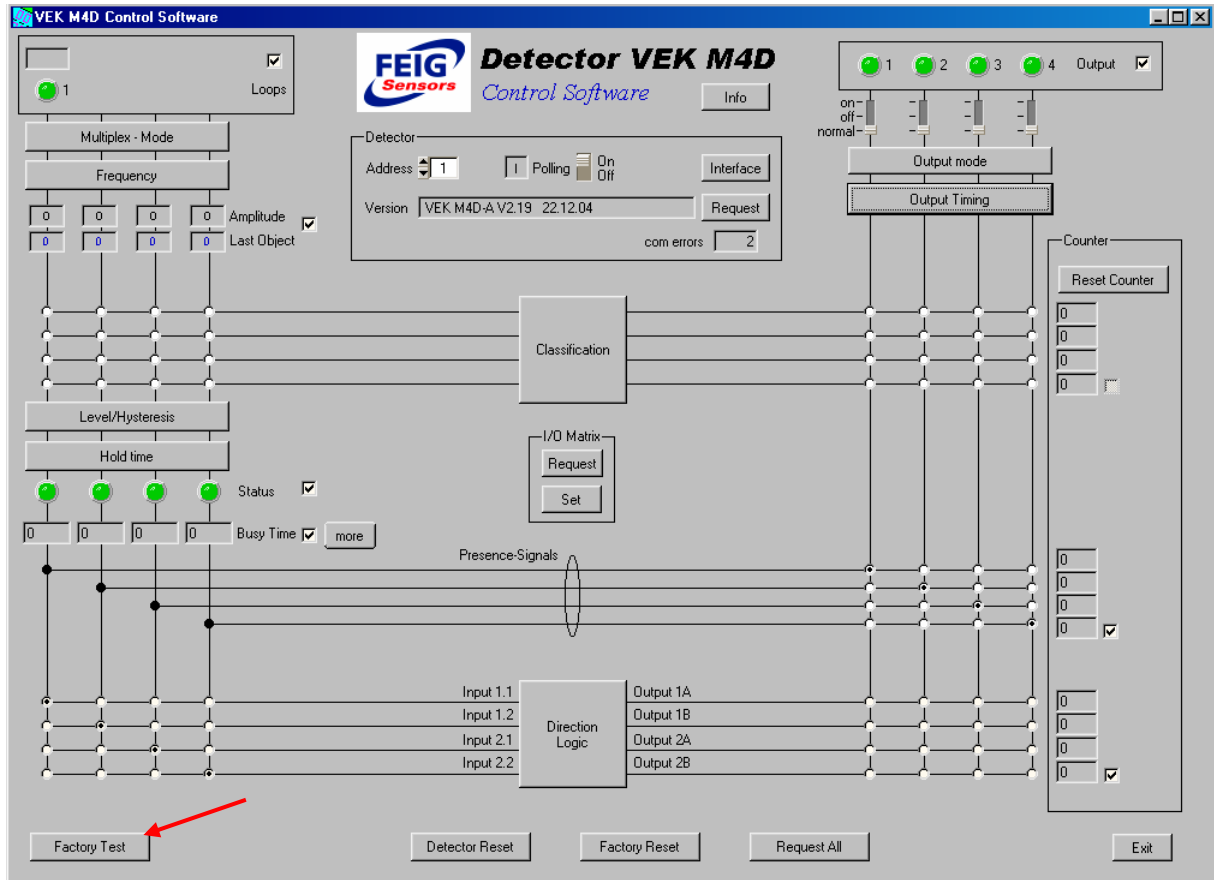
Ensure that all channels are set to "Normal mode" and "Loop fault". In case of changes click "Set".

## 2.9 Check I/O Matrix

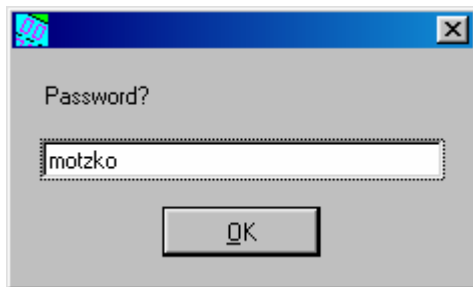


Ensure that the I/O matrix is configured as shown. Otherwise establish shown setting and click "Set".

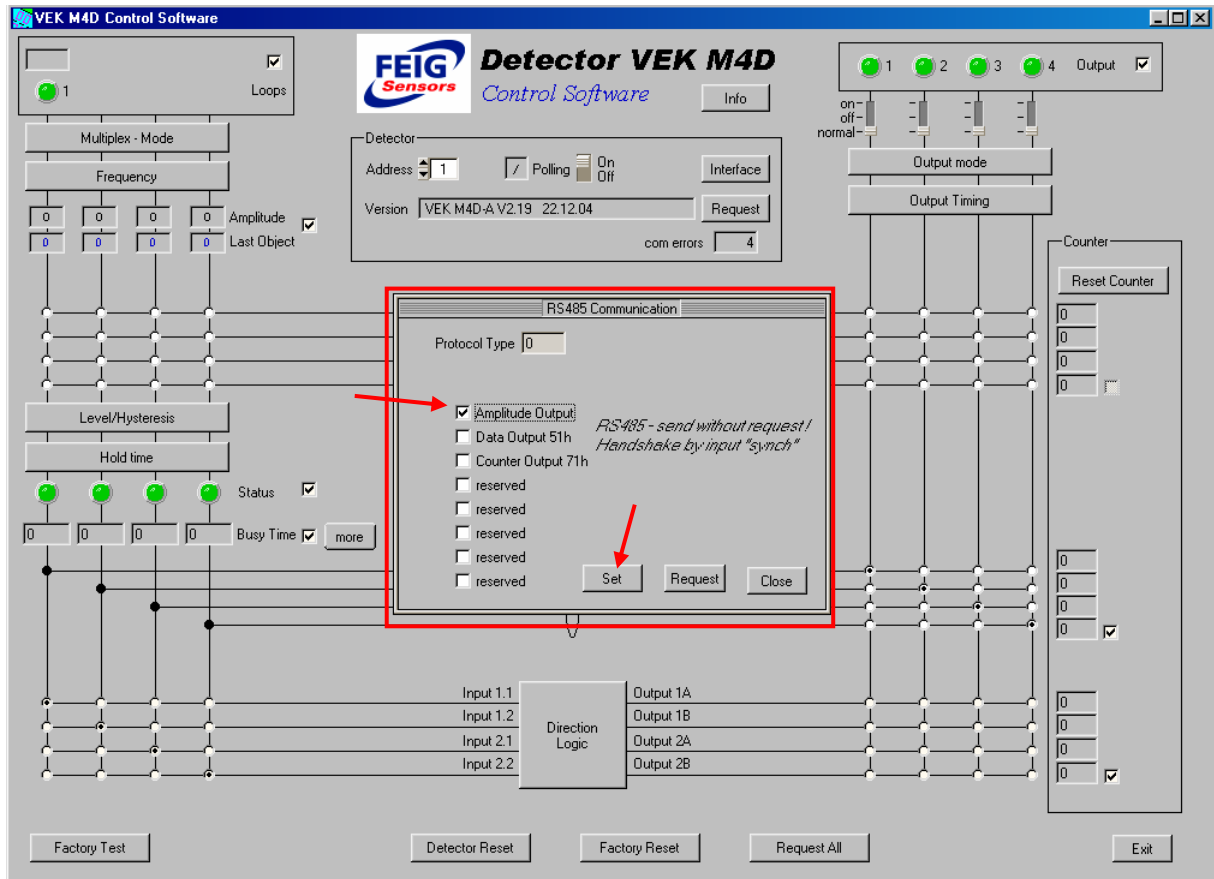
## 2.10 Enable Signature Transmission



Click "Factory Test".



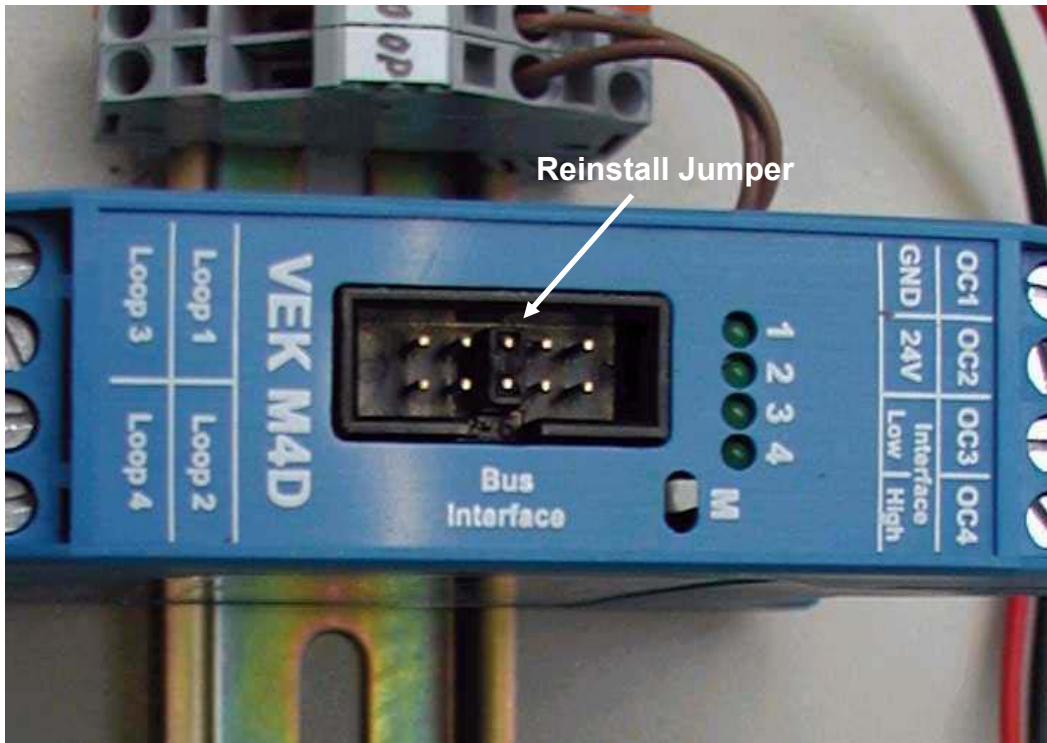
Enter password "motzko".



Enable "Amplitude Output". Click "Set".

### 3. Restore Hardware

#### 3.1 Re-Enable Talk-Only Mode



Power loop detector down. Re-install jumper on "Bus Interface" header removed in section 1.2. Remove RS-485 connection to PC.

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