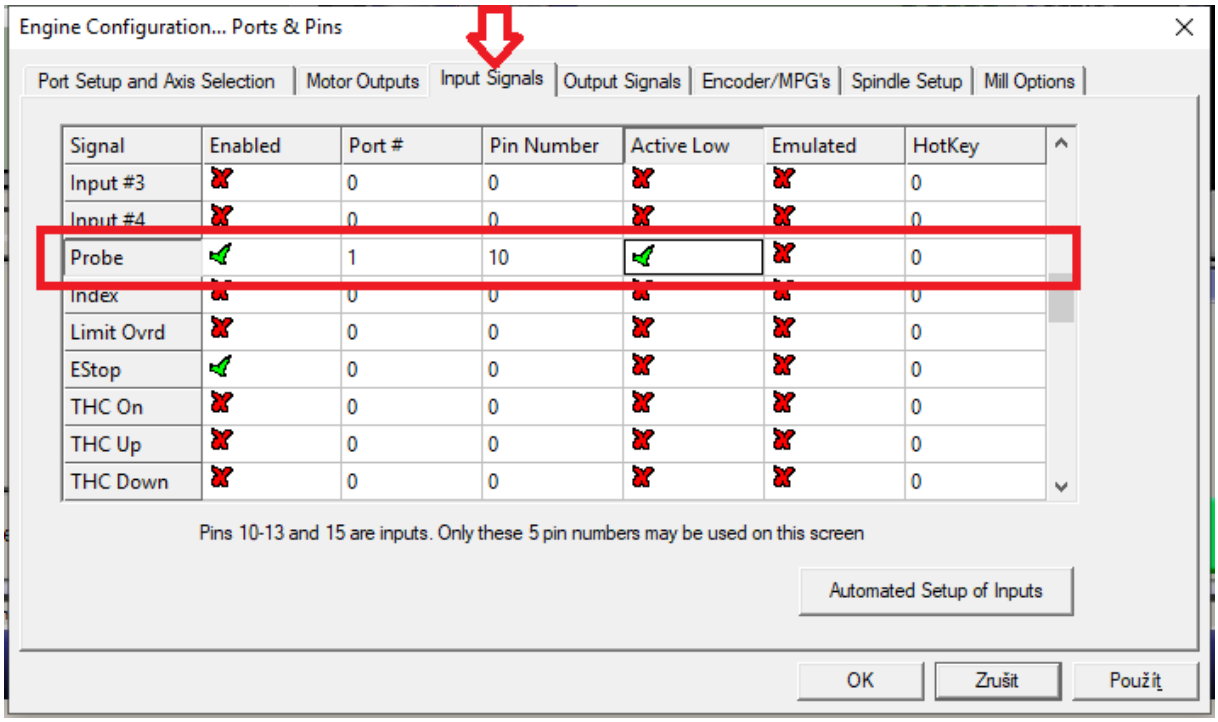
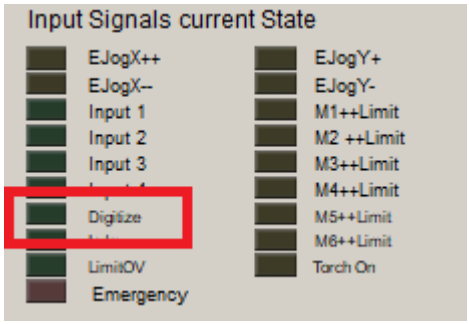
MACH3 integration:

- The sensor has to be connected to a digital input of your motion board. Check a user guide for your motion board to select correct input and wiring.
- If you use Z-axis tool height measurement device or other measurement device using G31, sensor has to share this input, because both share the same measurement Gcode. Check a documentation for your probe and check, if can be connected in parallel.
- As soon as sensor is connected to a motion board, set the input signal in MACH3/Config/Ports and pins menu:



Setup your “port number”, “pin number” and “active low” option according your motion board and wiring.

- Check the sensor function by MACH3/diagnostic page:
  When sensor is ready (not triggered) “Digitize” input has to be inactive:



When sensor is triggered, “Digitize” input has to be active:

This input is used by g-code G31. Please use documentation of your MACH3 version for further details. In general, G31 starts function, which moves a spindle in set direction, until “Digitize” input is activated. Current position at the touch point can be read.

Example of measurement cycle macro:

```
Code "G91 G31 X+10 F200"
sleep (100)
While (IsMoving())
  sleep (100)
Wend
SetOEMDro(800, -1.5)
```

G91 = incremental (relative) positioning
G31 X+10 F200 = probing function, move in X axe +10mm max with feed rate 200unit/s. This function ends as soon as Digitize input is activated or after set distance (X+10mm in this example)

sleep (100), While (IsMoving()), sleep (100) , Wend = waiting cycle, finishes as soon as machine is stopped, means G31 ends.

SetOEMDro(800, -1.5) = set X DRO to value -1.5 (half of tip dia). Value can be different.