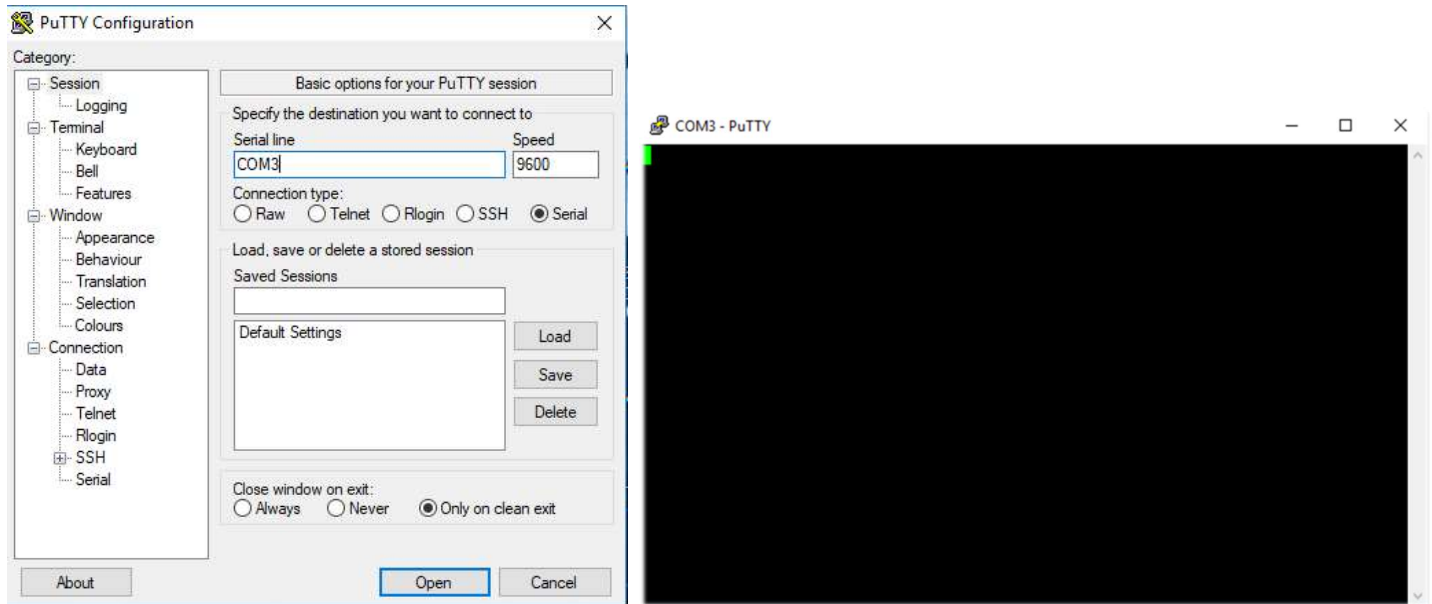


Examples showing how to use ASCII Commands with MI3

1. Use terminal program like Terra Term or PuTTY to test communication & flow of data from the sensor.

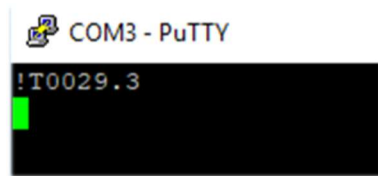
Examples shown below are explained using terminal program PuTTY.

2. Run the program & enter the Comm port no. & default baud rate. Then click Open.



3. To check if the device is responding, try any command e.g.

Target temperature command: ?T



Response from Putty: !T0029.3 indicates that target temperature is 29.3 Deg C

4. There are two transfer modes for the digital interface:

Poll Mode: By user-interface control, a parameter will be set or requested.

Burst Mode: A pre-defined data string ("burst string") will be transferred as fast as possible, if the burst mode is activated. The data will be transferred in one direction only, from the unit to the user interface.

5. "P" starts the Poll mode (allows to request or to set parameters)

Command to start Poll mode: V=P

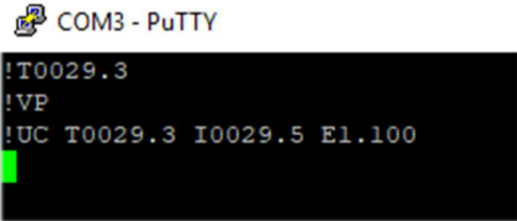


Response from Putty: !VP indicates that the transfer mode is set to Poll Mode.

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6. Identifying burst string parameters while in poll mode

Command to identify burst string parameter in poll mode: **?X\$**



```
COM3 - PuTTY
!T0029.3
!VP
!UC T0029.3 I0029.5 E1.100
```

Response from PuTTY: **UC**- Unit is Deg C; **T0029.3**- target temperature is 29.3 Deg C; **I0029.5**- Internal temperature is 29.5 Deg C; **E1.100** - Emissivity is set at 1.1

The default string parameters are:

\$=UTIE

"\$" sets the parameter combination ("burst string")

"U" unit (°C or °F)

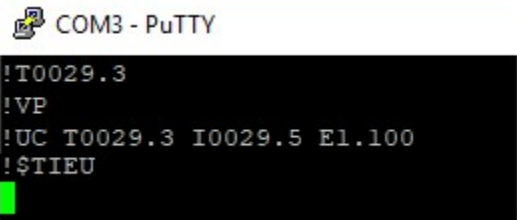
"T" temperature value

"I" internal temperature of the sensing head

"E" emissivity

7. Changing the burst string format using PuTTY.

Command to change burst string format: **\$=TIEU**



```
COM3 - PuTTY
!T0029.3
!VP
!UC T0029.3 I0029.5 E1.100
!$TIEU
```

Response from PuTTY: **!\$TIEU**

"\$" sets the parameter combination ("burst string")

"T" temperature value

"I" internal temperature of the sensing head

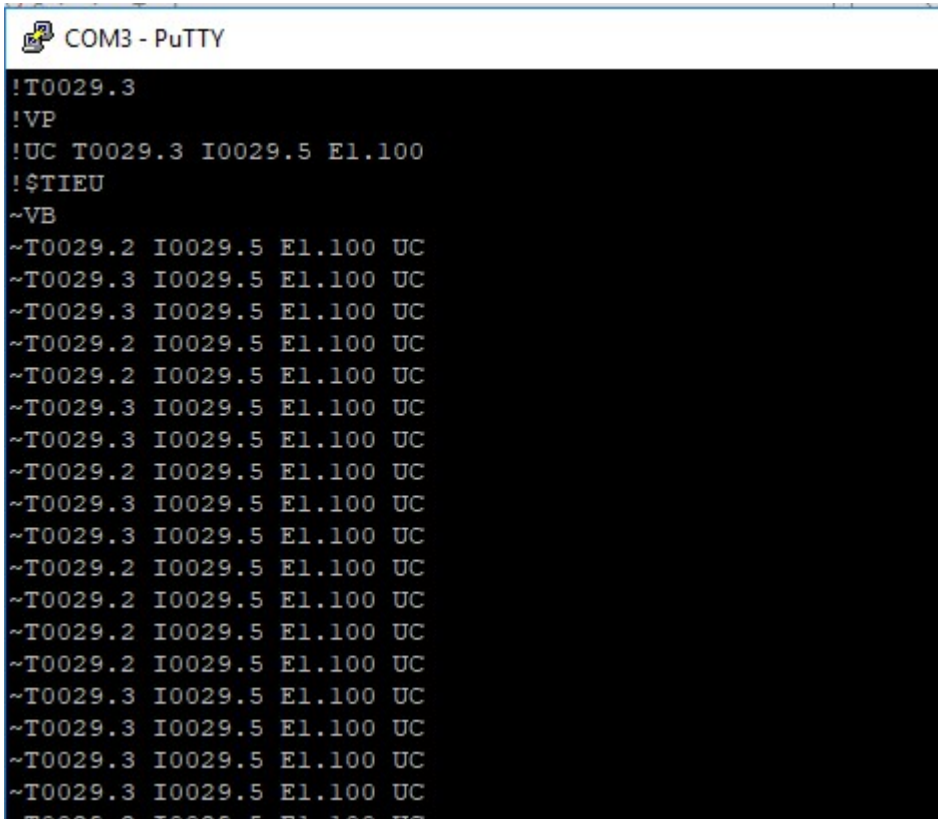
"E" emissivity

"U" unit (°C or °F)

The sequence of command can be changed/ modified by considering the available commands from the sheet.

8. Receiving data from PuTTY in Burst mode

Command to initiate Burst mode: **V=B**



```
COM3 - PuTTY
!T0029.3
!VP
!UC T0029.3 I0029.5 E1.100
!$TIEU
~VB
~T0029.2 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.2 I0029.5 E1.100 UC
~T0029.2 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.2 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.2 I0029.5 E1.100 UC
~T0029.2 I0029.5 E1.100 UC
~T0029.2 I0029.5 E1.100 UC
~T0029.2 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
~T0029.3 I0029.5 E1.100 UC
```

Response from PuTTY: **!VB**

This is followed by the burst of strings.

9. If there is more than one sensor connected to the comm box, the string needs to be modified to accept data from each individual head e.g.

\$=T1I1E1U1 T2I2E2U2

“\$” sets the parameter combination (“burst string”)

“T1” temperature value for sensing head 1

“I1” internal temperature of the sensing head 1

“E1” emissivity value for sensing head 1

“U1” unit (°C or °F) for sensing head 1

“T2” temperature value for sensing head 2

“I2” internal temperature of the sensing head 2

“E2” emissivity value for sensing head 2

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“U2“ unit (°C or °F) for sensing head 2