

# ENVIROPRO<sup>®</sup> SDI-12 COMMANDS



## SDI-12 commands

Below are examples of SDI-12 commands.

**NOTE:** **Send commands (shown in red)** \*Add C command for CRC  
**Responses (shown in blue)**

<b>?!</b> 1	; query probe address ; probe response (Address = 1)
<b>1!</b> 113EP100G-08 01151108151545	; request probe ID ; probe response
<b>1A0!</b> 0	; change probe address from 1 to 0 ; probe response (Address = 0)
<b>0C!</b> 000208	; measure moisture with salinity compensation ; time taken 0002 seconds, 08 sensors measured
<b>0D0!</b> 0+001.84+001.52+001.58+001.61+000.96+000.04+000.00+000.05	; read probe data ; eight moisture measurements as a percentage % of VWC returned
<b>0C1!</b> 000208	; measure salinity ; time taken 0002 seconds, 08 sensors measured
<b>0D0!</b> 0+00.000+00.000+00.000+00.000+00.000+00.000+00.000+00.000	; read probe data ; eight salinity measurements in ECe, dS/m returned

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## SDI-12 commands (cont.)

Below are examples of SDI-12 commands.

**NOTE:** **Send commands (shown in red)** \*Add C command for CRC  
**Responses (shown in blue)**

<b>0C2!</b> 000208	; measure temperature in °C ; time taken 0002 seconds, 08 sensors measured
<b>0D0!</b> 0+028.06+027.97+027.90+028.08+029.05+028.77+028.05+027.02	; read probe data ; eight temperature measurements in °C returned
<b>0C3!</b> 000208	; measure moisture without salinity compensation ; time taken 0002 seconds, 08 sensors measured
<b>0D0!</b> 0+001.80+001.56+001.62+001.58+000.95+000.02+000.00+000.03	; read probe data ; eight moisture measurements as a percentage % of VWC without salinity compensation returned
<b>0C4!</b>	; reserved (factory use only)
<b>0C5!</b> 000208	; measure temperature in °F ; time taken 0002 seconds, 08 sensors measured
<b>0D0!</b> 0+082.48+082.30+082.22+082.49+084.26+083.61+082.30+080.39	; read probe data ; eight temperature measurements in °F returned

\* Older M commands are also supported however, C commands are recommended if number of enabled sensors exceeds nine (9)

\*\*C6 to C9 commands reserved for future features.

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## Extended SDI-12 commands

### XU

The following SDI-12 extended commands enable remote upgrade of the EnviroPro sensor to measure EC using telemetry/loggers that support transparent mode.

Example shown below for a probe with an ID =013EP100GL-0801151108151545

In transparent mode send the extended command 0XUFBADE841! via the logger or telemetry system. Where "0" is the probe address followed by the command "XU" and then the 8 digit Xkey. (Note the upgrade Xkey is supplied separately by Entelechy on request and is not case sensitive).

**0XUFBADE841!**

**01 PASS**

Once transmitted the probe will then be upgraded to a full EC version and will return the following message:  
**01 PASS**

The new ID will display 013EP100G-0801151108151545 confirming the probe has been successfully upgraded with EC measurements enables (G = Full EC version).

If the message **00 FAIL** is received the probe ID will still show "GL" meaning the probe has not been upgraded with EC.