

Engineering Note: EN0058

Hydrotrac / Hydro-Probe SE Sensor Factory Default Parameters

Summary: Hydrotrac and Hydro-Probe SE Sensor Factory Default Parameters

Products affected: Hydrotrac, Model: HT02, Hydro-Probe SE, Model: HPSE

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This note lists the default parameter values that should be used in production when setting up Hydro-Trac II or Hydro-Probe Special Equipment (HT02 or HPSE) units.

This table applies only to HT02 sensors that have the following firmware versions.

HT02 Firmware HS0070 Version 2.15 or later

Parameter	Standard Default	
<i>Input/output configuration</i>		
Output type *	4 – 20 mA	
Output variable 1	Brix	
Output variable 2	Material temperature	
High %	100.00	
Low %	0.00	
Input Use 1	Moisture/Temperature	
Input/output Use 2	Unused	
<i>Signal processing configuration</i>		
Smoothing time	10 sec	
Slew rate +	Heavy	
Slew rate -	Heavy	
<i>Moisture calibration</i>		
	Moisture	Brix
A	0.0000	101.00
B	0.2857	0.15
C	-4.0000	0.17
SSD	0.00	-2.50
<i>Averaging configuration</i>		
Average hold delay	0 sec	
High limit (m%)	30.00	
Low limit (m%)	0.00	
High limit (us)	100.00	
Low limit (us)	0.00	
<i>Temperature compensation</i>		
Electronics temp. coeff	0.002	
Resonator temp. coeff	0.0165	
Material temp. coeff	0.0000	

This table applies only to HT02 sensors that have the following firmware versions.
 HT02 Software HS0089 Version 1.01 or later

Parameter	Standard Default	
<i>Input/output configuration</i>		
Output type *	4 – 20 mA	
Output variable 1	Brix	
Output variable 2	Material temperature	
High %	100.00	
Low %	0.00	
Input Use 1	Moisture/Temperature	
Input/output Use 2	Unused	
<i>Signal processing configuration</i>		
Smoothing time	10 sec	
Slew rate +	Heavy	
Slew rate -	Heavy	
<i>Moisture calibration</i>		
	Moisture	Brix
A	0.0000	101.00
B	0.2857	0.15
C	-4.0000	0.17
SSD	0.00	-2.50
<i>Averaging configuration</i>		
Average hold delay	0 sec	
High limit (m%)	30.00	
Low limit (m%)	0.00	
High limit (us)	100.00	
Low limit (us)	0.00	
<i>Temperature compensation</i>		
Electronics freq. coeff	-0.0035	
Resonator freq. coeff	set on production test	
Material freq. coeff	0.0000	
Electronics amp. coeff	-0.15	
Resonator amp. coeff	set on production test	
Material amp. coeff	0.00	

This table applies only to HPSE sensors that have the following firmware versions.

HPSE Software HS0070 Version 2.15 or later

BRIX OUTPUT

Parameter	Brix
<i>Input/output configuration</i>	
Output type *	4 – 20 mA
Output variable 1	Brix
Output variable 2	Material temperature
High %	100.00
Low %	0.00
Input Use 1	Moisture/Temperature
Input/output Use 2	Unused
<i>Signal processing configuration</i>	
Smoothing time	10 sec
Slew rate +	Heavy
Slew rate -	Heavy
<i>Moisture calibration</i>	
	Brix
A	101.00
B	0.15
C	0.17
SSD	-2.50
<i>Averaging configuration</i>	
Average hold delay	0 sec
High limit (m%)	30.00
Low limit (m%)	0.00
High limit (us)	100.00
Low limit (us)	0.00
<i>Temperature compensation</i>	
Electronics temp. coeff	0.002
Resonator temp. coeff	0.0165
Material temp. coeff	0.0000

MOISTURE OUTPUT

Parameter	Moisture
<i>Input/output configuration</i>	
Output type *	0 – 20 mA
Output variable 1	Filtered Unscaled
Output variable 2	Material temperature
High %	20.00
Low %	0.00
Input Use 1	Moisture/Temperature
Input/output Use 2	Unused
<i>Signal processing configuration</i>	
Smoothing time	1 sec
Slew rate +	Light
Slew rate -	Light
<i>Moisture calibration</i>	
A	0.0000
B	0.2857
C	-4.0000
SSD	0.00
<i>Averaging configuration</i>	
Average hold delay	0 sec
High limit (m%)	30.00
Low limit (m%)	0.00
High limit (us)	100.00
Low limit (us)	0.00
<i>Temperature compensation</i>	
Electronics temp. coeff	0.002
Resonator temp. coeff	0.0165
Material temp. coeff	0.0000

This table applies only to HPSE sensors that have the following firmware versions.

HPSE Software HS0089 Version 1.01 or later

BRIX OUTPUT

Parameter	Brix
<i>Input/output configuration</i>	
Output type *	4 – 20 mA
Output variable 1	Brix
Output variable 2	Material temperature
High %	100.00
Low %	0.00
Input Use 1	Moisture/Temperature
Input/output Use 2	Unused
<i>Signal processing configuration</i>	
Smoothing time	10 sec
Slew rate +	Heavy
Slew rate -	Heavy
<i>Moisture calibration</i>	
	Brix
A	101.00
B	0.15
C	0.17
SSD	-2.50
<i>Averaging configuration</i>	
Average hold delay	0 sec
High limit (m%)	30.00
Low limit (m%)	0.00
High limit (us)	100.00
Low limit (us)	0.00
<i>Temperature compensation</i>	
Electronics freq. coeff	-0.0035
Resonator freq. coeff	set on production test
Material freq. coeff	0.0000
Electronics amp. coeff	-0.15
Resonator amp. coeff	set on production test
Material amp. coeff	0.00

MOISTURE OUTPUT

Parameter	Moisture
<i>Input/output configuration</i>	
Output type *	0 – 20 mA
Output variable 1	Filtered Unscaled
Output variable 2	Material temperature
High %	20.00
Low %	0.00
Input Use 1	Moisture/Temperature
Input/output Use 2	Unused
<i>Signal processing configuration</i>	
Smoothing time	1 sec
Slew rate +	Light
Slew rate -	Light
<i>Moisture calibration</i>	
A	0.0000
B	0.2857
C	-4.0000
SSD	0.00
<i>Averaging configuration</i>	
Average hold delay	0 sec
High limit (m%)	30.00
Low limit (m%)	0.00
High limit (us)	100.00
Low limit (us)	0.00
<i>Temperature compensation</i>	
Electronics freq. coeff	-0.0035
Resonator freq. coeff	set on production test
Material freq. coeff	0.0000
Electronics amp. coeff	-0.15
Resonator amp. coeff	set on production test
Material amp. coeff	0.00