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

Revision Date: December 2013 Author: Simon Davison / Andrew Smith / Paul Rogers

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	
Input/output configuration		
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	
Signal processing configuration		
Smoothing time	10 sec	
Slew rate +	Heavy	
Slew rate -	Heavy	
Moisture calibration	**Moisture**	**Brix**
A	0.0000	101.00
B	0.2857	0.15
C	-4.0000	0.17
SSD	0.00	-2.50
Averaging configuration		
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	
Temperature compensation		
Electronics temp. coeff	0.002	
Resonator temp. coeff	0.0165	
Material temp. coeff	0.0000	

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

Parameter	Standard Default	
Input/output configuration		
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	
Signal processing configuration		
Smoothing time	10 sec	
Slew rate +	Heavy	
Slew rate -	Heavy	
Moisture calibration	**Moisture**	**Brix**
A	0.0000	101.00
B	0.2857	0.15
C	-4.0000	0.17
SSD	0.00	-2.50
Averaging configuration		
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	
Temperature compensation		
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	

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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
Input/output configuration	
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
Signal processing configuration	
Smoothing time	10 sec
Slew rate +	Heavy
Slew rate -	Heavy
Moisture calibration	**Brix**
A	101.00
B	0.15
C	0.17
SSD	-2.50
Averaging configuration	
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
Temperature compensation	
Electronics temp. coeff	0.002
Resonator temp. coeff	0.0165
Material temp. coeff	0.0000

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MOISTURE OUTPUT

Parameter	Moisture
Input/output configuration	
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
Signal processing configuration	
Smoothing time	1 sec
Slew rate +	Light
Slew rate -	Light
Moisture calibration	**Moisture**
A	0.0000
B	0.2857
C	-4.0000
SSD	0.00
Averaging configuration	
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
Temperature compensation	
Electronics temp. coeff	0.002
Resonator temp. coeff	0.0165
Material temp. coeff	0.0000

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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
Input/output configuration	
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
Signal processing configuration	
Smoothing time	10 sec
Slew rate +	Heavy
Slew rate -	Heavy
Moisture calibration	**Brix**
A	101.00
B	0.15
C	0.17
SSD	-2.50
Averaging configuration	
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
Temperature compensation	
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

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MOISTURE OUTPUT

Parameter	Moisture
Input/output configuration	
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
Signal processing configuration	
Smoothing time	1 sec
Slew rate +	Light
Slew rate -	Light
Moisture calibration	**Moisture**
A	0.0000
B	0.2857
C	-4.0000
SSD	0.00
Averaging configuration	
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
Temperature compensation	
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
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