

Ultrasonic Fuel Level Sensor

——Protocol specification

1.Protocol version

This document describes the general protocol of Ultrasonic fuel level sensor, Protocol format contains a character segment protocol version number ,for the upper computer software to identification

2. Transmission mode

Ultrasonic fuel level sensor using serial transmission mode, no parity bit, 8 bit data bit, 1 stop bit, no flow control, the default baud rate is 9600.

3. protocol format

Ultrasonic fuel level sensor transmit protocol through ACS code, The format is

*XD,efgh,ij,klmn,abcd,opqr,stuv,wxyz#

The generic version protocol takeing the initiative to upload mode, The default sent once every 10 seconds.

Each field is explained as follows

NO.	Field name	Instruction
1	*XD	Start mark
2	e	Protocol version number
3	fg	Software version number
4	h	Hardware version number
5	ij	Reserved
6	klmn	Smoothing value of the height
7	ab	Echo signal strength
8	c	Software status code
9	d	Hardware fault code
10	opqr	Reserved
11	stuv	Real-time value of the height
12	wxyz	Reserved
13	#	End mark
Among them "," is the inter field delimiter		

4. Hardware fault code interpretation

Fault code	Interpretation
1	The ultrasonic probe is not connected,or the Probe extension wire is borken.
2	The ultrasonic echo instability, Please check the ultrasonic probe is off
3	System voltage error, Please check whether

	the vehicle voltage low
4	system reset abnormally
5	The analog voltage output is not correct
6	Blind area

5. Software status code interpretation

Status code	Interpretation
0	Changes in normal range
1	The system has just started, output measurement value
2	Gas delay count
3	The measured value is invalid
4	The stationary state
9	a sudden drop
A	a sudden rise
B	delay time of the sudden drop
C	delay time of the sudden rise
D	The stationary state, maintain the liquid level height value output unchanged (Tilt sensor)
F	A sudden drop/rise on an tilt