Micro Sensor Intelligent Transmitter Communication Instruction Version 2.3

(Be suitable for Series MPM47xx and MPM462)

Data Format：1 start bit, 8 data bit, 1 stop bit, no parity bit.

Instruction Format

Send Instruction:

$	xx	YY	[S #. ###]	PP	Chr（13）
Start character	Address	Instruction	Parameter	Check	End character

Answer Instruction:

*	xx	[S #. ###]	PP	Chr (13)
Start character	Address	Parameter	Check	End character

Instruction Explaining：The instruction format is flexible, contents in "[ ]" are optional.

$	Start character of sending instruction, 1 byte, ASCII code is 24H
*	Start character of answering instruction, 1 byte, ASCII code is 2AH
Return	End character of instruction, 1 byte, ASCII code is 0DH
xx	Address mark, 2 bytes, from 01 to 99, totally 99 optional addresses and one omnipotent address 00
YY	Instruction code, 2 bytes, composed by capital letter, details to see detailed rules
S	"＋" or "－", 1 byte
.	Decimal, 1 byte, in the middle of the number, could be changed due to different units
####	Number, 4 bytes, algorism
PP	Check character, 2 bytes; PP valve could be got from one byte which will be calculated (XOR) by ASCII between start character and check character one bit by one bit; the byte's high and low nibbles are indicated by ASCII, therefore, two bytes "PP" could be got.

Special Indication

Address "00" is universal address. When user inputs "00" address, please be sure there is only one transmitter in the bus line. Otherwise, bus line transmitters will compete with each other, and this will result in wrong return value.

Instruction Detailed Rules:

The usage of detailed rules on the following table, take transmitter parameter as example:

Address：55
Baud Rate：9600bps
SN： 02461232
Transmitter：－0.1~1MPa
Temperature：25℃
Current Pressure：0.500MPa
Pressure Type：Absolute

Software Version：V1.00

Communication Instruction:

In the following table, check character and end character have been omitted. When using, the instruction could be valid by adding these two characters.

Instruction	Details	Parameter	Instruction Example	Answer Example	Explain
AD	Read address		$00AD	*5555	Parameter range is number 01~99.
	Write address	##	$55AD34	*3434	
BD	Read baud rate		$55BD	*551	Parameter 0,1,2,3 could be optional, stands for 1200,2400,4800,9600 bps respectively
	Write baud rate	#	$55BD1	*551	
RP	Read transmitter pressure value	#	$55RP0	*55+0.500	#:channel No., the ranges are different according to different transmitter types
ID	Read SN		$55ID	*5502461232	SN is 02461232
DL	Read zero display		$55DL	*55-0.100	
	Setup zero display	S#.###	$55DL-0.100	*55-0.100	
DH	Read FS display		$55DH	*55+1.000	
	Setup FS display	S#.###	$55DH+1.000	*55+1.000	
OL	Read zero transmitting output		$55OL	*55-0.100	
	Read zero transmitting output	S#.###	$55OL-0.100	*55-0.100	
OH	Read FS transmitting output		$55OH	*55+1.000	
	Read FS transmitting output	S#.###	$55OH+1.000	*55+1.000	
DP	Read decimal position		$55DP	*553	Parameter range is 0, 1, 2, 3 and 4, display integer correspondingly, 1, 2, 3, or 4 decimals
	Setup decimal position	#	$55DP3	*553	
WU	Save setting value to user		$55WU	*55OK	OK means save successfully.
LD	Restore factory setting		$55LD	*55OK	OK means save successfully.
UT	Read transmitter unit		$55UT	*551	Returning value range is 0, 1, 2, 3, 4 and 5，means kPa、MPa、mH_2O、bar、Psi、mbar respectively
SZ	zero		$55SZ	*55OK	OK means save successfully
ZF	Read zero final		$55ZF	*55+1224	Parameters are 4 algorism numbers with symbol
	Setup zero final	S####	$55ZF+1233	*55+1233	
FF	Read FS final		$55FF	*55+3453	Parameters are 4 algorism numbers with symbol
	Setup FS final	S####	$55FF+3244	*55+3244	
TY	Read type Pressure type Output type		$55TY	*55460-1000	

Type code				Type		Out put		Channel		Reserve
#	#	#	#	#	#	#	#	#	#	#
4	6	0		0	Gauge	0	No output	0	Single channel	0
4	6	2	E	1	Sealed gauge	1	4-20mA			0
4	6	2	B			2	0-10mA			0
4	8	4	A	2	Absolute	3	0-20mA	1	Double channel	0
4	8	4	Z	3	Differential Pressure	4	0-5V			0

											5	1-5V			