

tabula-SDS011 Laser\_Dust\_Sensor\_Control\_Protocol\_V1.3

Byte	Direction					PC->Sensor	Sensor->PC			PC->Sensor	Sensor->PC			PC->Sensor	Sensor->PC			PC->Sensor	Sensor->PC
	Command Name					<b>Set data reporting mode</b>	Reply			<b>Query data command</b>	Reply	<b>Set device ID</b>	Reply	<b>Set sleep and work</b>	Reply	<b>Check Firmware Version</b>	Reply	<b>Set working period</b>	Reply
						The setting is still effective after power off 【Factory default is active reporting】				Sensor received query data command to report a measurement data, <b>recommended query interval of not less than 3 seconds</b>		The setting is still effective after power off 【Factory default has set a unique ID】		The setting is <b>not</b> effective after power off 【stay work state after power on】				The setting is still effective after power off 【factory default is continuous measurement】 The sensor works periodically and reports the latest data.	
		checksum query reply				<b>Report query mode:</b> Sensor received query data command to report a measurement data. <b>Report active mode:</b> Sensor automatically reports a measurement data in a work period.								Notes: The data is stable when the sensor works after 30 seconds; The fan and laser stop working in sleeping mode.			Show its firmware version is 0F070A(15~7-10).		
0	Head					AA	AA			AA	AA	AA	AA	AA	AA	AA	AA	AA	AA
1	Command ID					<b>B4</b>	<b>C5</b>			<b>B4</b>	<b>C0</b>	<b>B4</b>	<b>C5</b>	<b>B4</b>	<b>C5</b>	<b>B4</b>	<b>C5</b>	<b>B4</b>	<b>C5</b>
2	Data byte 1		x	x	0	1	<b>2</b>	<b>2</b>	3	3	<b>4</b>	PM2.5 low byte	<b>5</b>	<b>5</b>	<b>6</b>	<b>6</b>	<b>7</b>	<b>7</b>	<b>8</b>
3	Data byte 2	x	x			0:query the current mode 1:set reporting mode	0:query the current mode 1:set reporting mode			0(reserved)	PM2.5 high byte	0(reserved)	0(reserved)	0:query the current mode 1:set mode	0:query the current mode 1:set mode	0(reserved)	Firmware Version Byte1: year	0:query the current mode 1:set mode	0:query the current mode 1:set mode
4	Data byte 3	x	x			0:report active mode 1:Report query mode	0:report active mode 1:Report query mode			0(reserved)	PM10 low byte	0(reserved)	0(reserved)	0:sleep 1:work	0:sleep 1:work	0(reserved)	Firmware Version Byte2: month	0: continuous (default) n=1-30minute: work 30 seconds and sleep n*60-30 seconds	0: continuous (default) n=1-30minute: work 30 seconds and sleep n*60-30 seconds
5	Data byte 4	x	x			0(reserved)	0(reserved)			0(reserved)	PM10 high byte	0(reserved)	0(reserved)	0(reserved)	0(reserved)	0(reserved)	Firmware Version Byte3: day	0(reserved)	0(reserved)
6	Data byte 5	x	x			0(reserved)	Device ID byte 1			0(reserved)	Device ID byte 1	0(reserved)	New Device ID byte 1	0(reserved)	Device ID byte 1	0(reserved)	Device ID byte 1	0(reserved)	Device ID byte 1
7	Data byte 6	x	x			0(reserved)	Device ID byte 2			0(reserved)	Device ID byte 2	0(reserved)	New Device ID byte 2	0(reserved)	Device ID byte 2	0(reserved)	Device ID byte 2	0(reserved)	Device ID byte 2
8	Data byte 7	x				0(reserved)	Checksum byte			0(reserved)	Checksum byte	0(reserved)	Checksum byte	0(reserved)	Checksum byte	0(reserved)	Checksum byte	0(reserved)	Checksum byte
9	Data byte 8	x				0(reserved)	AB			0(reserved)	AB	0(reserved)	AB	0(reserved)	AB	0(reserved)	AB	0(reserved)	AB
10	Data byte 9	x				0(reserved)				0(reserved)		0(reserved)		0(reserved)		0(reserved)		0(reserved)	
11	Data byte 10	x				0(reserved)				0(reserved)		0(reserved)		0(reserved)		0(reserved)		0(reserved)	
12	Data byte 11	x				0(reserved)				0(reserved)		0(reserved)		0(reserved)		0(reserved)		0(reserved)	
13	Data byte 12	x				0(reserved)				0(reserved)		New Device ID byte 1		0(reserved)		0(reserved)		0(reserved)	
14	Data byte 13	x				0(reserved)				0(reserved)		New Device ID byte 2		0(reserved)		0(reserved)		0(reserved)	
15	Data byte 14	x				FF :all sensor response Device ID byte 1:unique sensor in this ID response				FF :all sensor response Device ID byte 1:unique sensor in this ID response		FF :all sensor response Device ID byte 1:unique sensor in this ID response		FF :all sensor response Device ID byte 1:unique sensor in this ID response		FF :all sensor response Device ID byte 1:unique sensor in this ID response		FF :all sensor response Device ID byte 1:unique sensor in this ID response	
16	Data byte 15	x				FF :all sensor response Device ID byte 2:unique sensor in this ID response				FF :all sensor response Device ID byte 2:unique sensor in this ID response		FF :all sensor response Device ID byte 2:unique sensor in this ID response		FF :all sensor response Device ID byte 2:unique sensor in this ID response		FF :all sensor response Device ID byte 2:unique sensor in this ID response		FF :all sensor response Device ID byte 2:unique sensor in this ID response	
17	Checksum					Checksum byte				Checksum byte		Checksum byte		Checksum byte		Checksum byte		Checksum byte	
18	Tail					AB				AB		AB		AB		AB		AB	
	checksumbereich für DevID FF					0/1/2				2				4/5/6		5		6bis37	