

Ditron

232 serial communication protocol

232 serial port

R232 serial communication protocol

Communication Protocol: Baud Rate 9600, 8, N, 1

Generally, it takes the "52H" "55H", "53H" as examples.

Sending data one time, Data receiver (PC) sends hexadecimal (52H) to Digital Readout, Digital Readout sends data one time. Digital Readout receives a hexadecimal (52H), sends a group data (current display value)

(1) Sending data continuously: Data receiver (PC) sends hexadecimal (55H) to Digital Readout, DRO sends data continuously, then it will send data with the changes of display value

(2) Stopping sending data: When Digital Readout received 53H, it will stop sending data. Then it will send data continuously, after it, only sending 53H digital readout, can stop sending data

(3) Other bottoms definition, please refer the table

Data format

Data ASCII

ASCII Code array format:

【X】 【sign bit】 【value】 【value】 【value】 【value】 【value】 【decimal point】
【value】 【value】 【value】 【blank】

【Y】 【sign bit】 【value】 【value】 【value】 【value】 【value】 【decimal point】
【value】 【value】 【value】 【blank】

【Z】 【sign bit】 【value】 【value】 【value】 【value】 【value】 【decimal point】
【value】 【value】 【value】 【blank】

Decimal points position is not fixed, it will changed with the setting of resolution

For example: X+1234.567 (Resolution=1, 2, 5, 10) (Three decimal places)

X+123.4567 (Resolution=0.1, 0.2, 0.5) (Four decimal places)
X+12.34567 (I/N=I Metric I/M=M Metric) (Five decimal places)

Transmission Connecting Way



RS232 serial communication protocol key table

Entity Key Table

Entity key	Character	Corresponding key	Key Specification
entity key	0x0A	ENT key	Enter Key
entity key	0x2A	Multiply Key	Calculator Function
entity key	0x2F	÷	Calculator Function
entity key	0x2B	+	Calculator Function
entity key	0x2D	-	Calculator Function
entity key	0x3D	=	Calculator Function
entity key	0x2E	.	Data input
entity key	0x30	0	Data input
entity key	0x31	1	Data input
entity key	0x32	2	Data input
entity key	0x33	3	Data input

entity key	0x34	4	Data input
entity key	0x35	5	Data input
entity key	0x36	6	Data input
entity key	0x37	7	Data input
entity key	0x38	8	Data input
entity key	0x39	9	Data input
entity key	0x3C	←	Left move code
entity key	0x3E	→	Right move code
entity key	0x41	SDM200	200 Points auxiliary zero
entity key	0x42	MM/INCH	Inch/metric mode
entity key	0x43	ABS/INC	absolute/relative coordinates transformation key
entity key	0x44	REF	Original point
entity key	0x45	1/2	1/2function key
entity key	0x4A	Cal	Calculation key
entity key	0x4B	Ce	Zeroing key(calculator function)
entity key	0x4C	SQR	square root calculate key
entity key	0x4D	Arc	Restore the trigonometric function key
entity key	0x4E	±	Data Input
entity key	0x78	X	X zeroing key
entity key	0x79	Y	Y zeroing key

entity key	0x7A	Z	Z zeroing key
entity key	0x7B	U	U zeroing key
entity key	0x58	X0	X zeroing key
entity key	0x59	Y0	Y zeroing key
entity key	0x5A	Z0	Z zeroing key
entity key	0x5B	U0	U zeroing key
entity key	0x64	sin	Calculator function
entity key	0x65	cos	Calculator function
entity key	0x10	tan	Calculator function
entity key	0x11	EDM	EDM
entity key	0x14	Taper function	Lathe Machine function key
entity key	0x15	Slash punch	Milling machine function key
entity key	0x16	PCD Y+Z key	Milling machine function key
entity key	0x17	R key	Milling machine function key

Virtual key table

Virtual Key	Character	Corresponding key	Key specification
Virtual Key	0x49	DR0 type	system menu
Virtual Key	0x1A	system menu	system menu
Virtual Key	0x52	Send data one time	Send data
Virtual Key	0x55	Send data continuously	Send data
Virtual Key	0x53	Stop sending	Stop sending data

		data	
Virtual Key	0XA0	Send X date one time	Send data
Virtual Key	0XA1	Send Y date one time	Send data
Virtual Key	0XA2	Send Z date one time	Send data
Virtual Key	0XA3	Send U date one time	Send data