

Keyence KV/KZ Series

HMI Factory Setting:

Baud rate: 9600, 8, Even, 1 (RS-232)

Controller Station Number: 0 (no PLC station number in protocol, one on one connection)

Control Area / Status Area: DM-0 / DM-10

Connection

a. RS-232 (DOP-A, DOP-B Series)

KV Series (Note1)

| DOP series | | Controller |
|----------------------|-------|----------------|
| 9 pin D-SUB (RS-232) | | RJ-11 (RS-232) |
| RXD (2) | ————— | (5) SD |
| TXD (3) | ————— | (3) RD |

KZ Series (Note1)

| DOP series | | Controller |
|----------------------|-------|----------------|
| 9 pin D-SUB (RS-232) | | RJ-11 (RS-232) |
| RXD (2) | ————— | (5) SD |
| TXD (3) | ————— | (3) RD |
| GN (5) | ————— | (4) SC |

Definition of PLC Read/Write Address

a. Registers

| Type | Format | Read/Write Range | Data Length | Note |
|--------------------|--------------|------------------|-------------|------|
| | Word No. (n) | | | |
| Timer | T-n | T-0 - T-199 | Word | |
| Counter | C-n | C-0 - C-199 | Word | |
| High-speed counter | CTH-n | CTH-0 - CTH-1 | Word | |

| Type | Format | Read/Write Range | Data Length | Note |
|-------------------------------|--------------|------------------|-------------|------|
| | Word No. (n) | | | |
| High-speed counter comparator | CTC-n | CTC-0 - CTC-3 | Word | |
| Data memory | DM-n | DM-0 - DM-1999 | Word | |
| Temporary data memory | TM-n | TM-0 - TM-31 | Word | |
| Timer preset value | PT-n | PT-0 - PT-199 | Word | |
| Counter preset value | PC-n | PC-0 - PC-199 | Word | |
| CTC preset value | PCTC-n | PCTC-0 - PCTC-3 | Word | |

b. Contacts

| Type | Format | Read/Write Range | Note |
|-------------------------------|--------------|------------------|----------|
| | Word No. (n) | | |
| | Bit No. (b) | | |
| Relay | R-nbb | R-000 - R-6915 | |
| Timer | T-b | T-0 - T-199 | <u>1</u> |
| Counter | C-b | C-0 - C-199 | <u>1</u> |
| High-speed counter comparator | CTC-b | CTC-0 - CTC-3 | |

 **NOTE**

- 1) Please be aware the pin definition of SD, RD is reversed in KZ-80T and KV series.
This protocol regards PLC protocol in KV series, when communicates with KZ series PLC, the following divergence will occur.
 1. Readable Timer address is not continuous. For example:
 - T-0 ~ T-9 can be read
 - T10 cannot be read
 - T11 ~ T20 can be read
 - T21 ~ T50 cannot be read ...etc.
 2. Counter cannot be read. For example:
 - Registers: C-, CTH-, CTC-, PC-, PCTC- all cannot be read.
 - Contacts: C-, CTC- cannot be read as well.