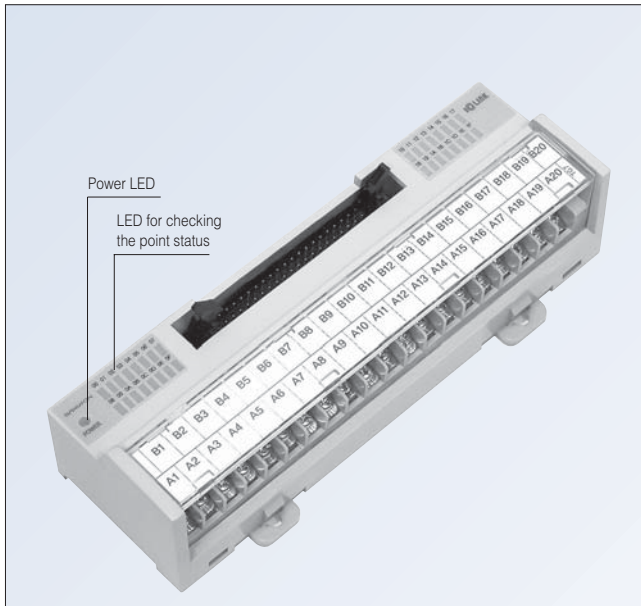


# TG7-1H40L Series (Interface Terminal Unit with LED indicator)

32Points I/O Terminal Unit easily checking motion of I/O

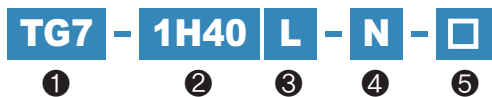
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## ■ Features

- LED attachment-typed I/O Interface Terminal Unit
  - In case that it is not easy to check the transmission and receiving of signals because the distance between controller and I/O is long, it is possible to check I/O by the flickering state of LED.
- Easy for Working and Maintenance & Repair
  - As it uses hinge-typed transparent T/B cover, it is easy to work and maintain & repair.
  - As it has a structure preventing from being taken out even when T/B bolt is unfastened completely, it has a high workability.
  - As it is designed to have a channel mounting structure, it is very easy to install it.
- Workability under any working environment and Excellent Stability
  - As it is a one-body equipment whose PCB is not exposed to the outside, it is safe from any electrical trouble due to dust, moisture, etc. and the material of its external case has a resistance to flame.
- Usage
  - It is suitable for System requiring to check I/O frequently and Remote I/O.
- For the specification of cable to connect with PLC, please see page 28.

## ■ Model Composition



- 1 7.0mm Pitch Smallest Interface Terminal Unit
- 2 Applicable Connector Specification and the Number of Terminal Pole
- 3 I/O Displaying LED-mounting typed
- 4 NPN or PNP
- 5 Applicable Terminal Bolt

## ■ Model Selection

| Model        |               | No. of Poles | Common   | Mounted connector Model | Cable connector Model | Dimension (W*D mm) | Mounting method    |
|--------------|---------------|--------------|----------|-------------------------|-----------------------|--------------------|--------------------|
| "Y" terminal | "O" terminal  |              |          |                         |                       |                    |                    |
| TG7-1H40L-N  | TG7-1H40L-N-O | 32Point      | NPN ⊕COM | HIF3BA-40PA-2.54DSA     | HIF3BA-40D-2.54R      | 152.3*49.5         | DIN Rail (Channel) |
|              |               |              |          | XG4A-4031               | XG4M-4030             |                    |                    |
| TG7-1H40L-P  | TG7-1H40L-P-O |              | PNP ⊖COM | HIF3BA-40PA-2.54DSA     | HIF3BA-40D-2.54R      |                    |                    |
|              |               |              |          | XG4A-4031               | XG4M-4030             |                    |                    |

※ Mounted connector can be changed into a compatible product without advance notice.

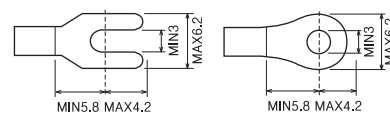
## ■ Characteristics

|                       |                                    |
|-----------------------|------------------------------------|
| Rated voltage         | 12~24V DC                          |
| Rated current         | 1A                                 |
| Indication            | IO : LED(Red) / Power : LED(Green) |
| LED rating            | 24V DC : 100mA max. / Point        |
| Insulation resistance | 500MΩ or above (DC 500V)           |
| Withstand voltage     | AC500V 1min                        |
| Applicable wire       | 1.25mm/MAX                         |
| Terminal Screw        | M3 × 10L                           |
| Screw torque          | 1.2N · m(12Kgf · cm)               |
| Ambient temperature   | -10℃ ~ +50℃                        |

## ■ Materials

|       |               |
|-------|---------------|
| Case  | Modified PPO  |
| Cover | Polycarbonate |
| P.C.B | Epoxy 1.6t    |

## ■ Applicable crimp terminal



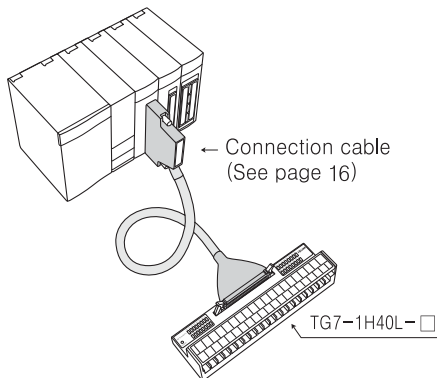
## ■ Applicable Cable Specification

Please select TG7-1H40L-□ as a connection cable between various PLC I/O Cards and I/O Link Terminal Unit when giving a purchase order to us. (For more information on the selection of specification, please see Page 16.)

# TG7-1H40L Series (Interface Terminal Unit with LED indicator)

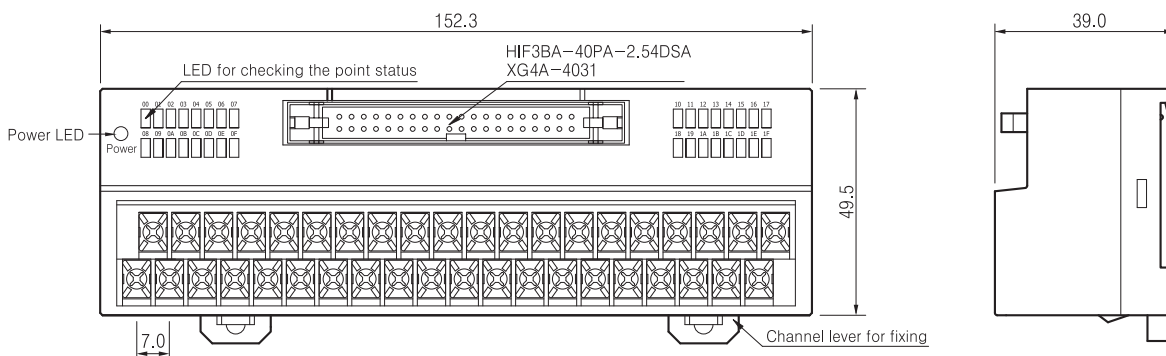
32Points I/O Terminal Unit easily checking motion of I/O

■ Examples of Connection between Various PLC I/O Cards and I/O Link Terminal Unit

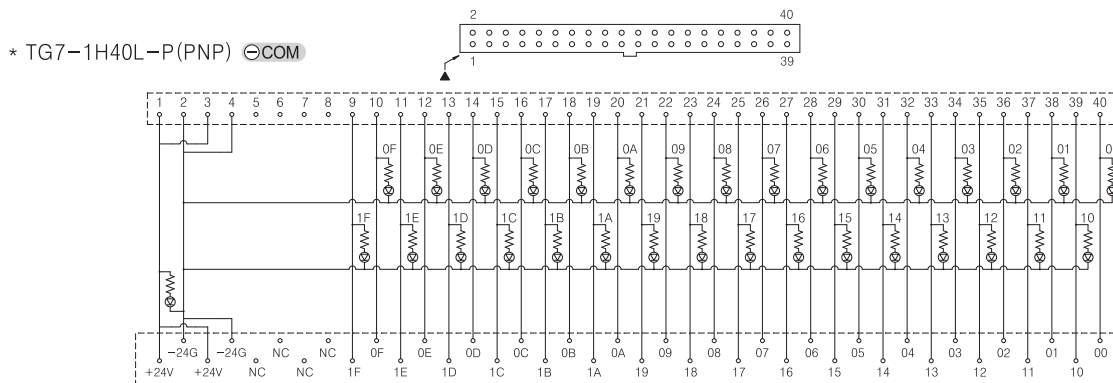
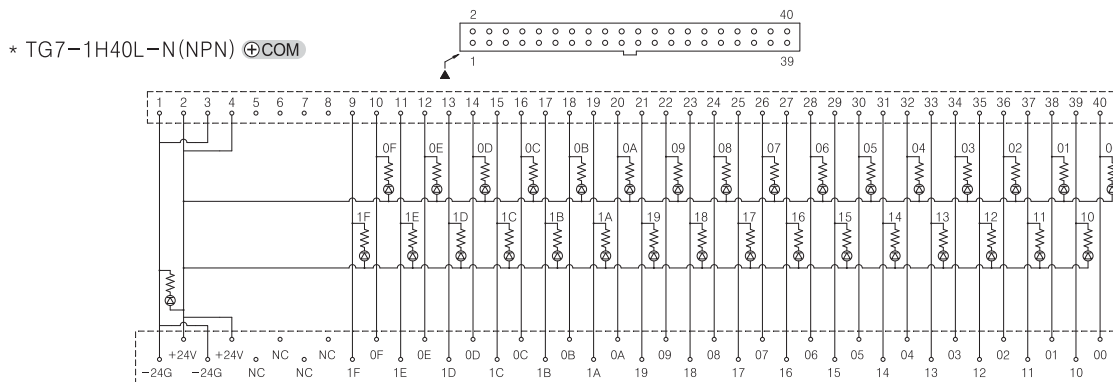


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■ Dimension



■ Wiring diagram



# TG7-1H40L Series (Interface Terminal Unit with LED indicator)

32Points I/O Terminal Unit easily checking motion of I/O

1

### ■ MITSUBISHI PLC (MELSEC Series)

| PLC Model | I/O Card | Number of I/O point | Terminal block used at both in/output |                |                  |      |
|-----------|----------|---------------------|---------------------------------------|----------------|------------------|------|
|           |          |                     | Terminal                              | Q'ty           | Applicable cable | Q'ty |
| Q         | QX41     | 32(IN)              | TG7-1H40L-N                           | 1              | C40HF-□LB-MIN1   | 1    |
|           | QX42     | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-MIN1   | 2    |
|           | QY41P    | 32(OUT)             | TG7-1H40L-N                           | 1              | C40HF-□LB-MON1   | 1    |
|           | QY42P    | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HF-□LB-MON1   | 2    |
|           | QX81     | 32(IN)              | TG7-1H40L-P                           | 1              | C37HD-□LB-MIP1   | 1    |
|           | QX82     | 64(IN)              | TG7-1H40L-P                           | 2              | C40HF-□LB-MIP1   | 2    |
|           | QY81P    | 32(OUT)             | TG7-1H40L-P                           | 1              | C37HD-□LB-MOP1   | 1    |
|           | QY82     | 64(OUT)             | TG7-1H40L-P                           | 2              | C40HF-□LB-MOP1   | 2    |
| A1S       | A1SX41   | 32(IN)              | TG7-1H40L-N                           | 1              | C40HF-□LB-MIN1   | 1    |
|           | A1SX42   | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-MIN1   | 2    |
|           | A1SY41   | 32(OUT)             | TG7-1H40L-N                           | 1              | C40HF-□LB-MON1   | 1    |
|           | A1SY42   | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HF-□LB-MON1   | 2    |
|           | A1SH42   | 32(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-MIN1   | 1    |
|           |          | 32(OUT)             | TG7-1H40L-N                           | 1              | C40HF-□LB-MON1   | 1    |
|           | A1SX81   | 32(IN)              | TG7-1H40L-P                           | 1              | C37HD-□LB-MIP3   | 1    |
|           | A1SX82   | 64(IN)              | TG7-1H40L-P                           | 2              | C40HF-□LB-MIP1   | 2    |
|           | A1SY81   | 32(OUT)             | TG7-1H40L-P                           | 1              | C37HD-□LB-MOP3   | 1    |
|           | A1SY82   | 64(OUT)             | TG7-1H40L-P                           | 2              | C40HF-□LB-MOP1   | 2    |
| A         | AX42     | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-MIN1   | 2    |
|           | AY42     | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HF-□LB-MON1   | 2    |
|           | AH42     | 32(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-MIN1   | 1    |
| 32(OUT)   |          | TG7-1H40L-N         | 1                                     | C40HF-□LB-MON1 | 1                |      |

### ■ LSIS PLC (GLOFA, XGT Series)

| PLC Model       | I/O Card | Number of I/O point | Terminal block used at both in/output |      |                  |      |
|-----------------|----------|---------------------|---------------------------------------|------|------------------|------|
|                 |          |                     | Terminal                              | Q'ty | Applicable cable | Q'ty |
| GM4 MK-300      | G4I-D24A | 32(IN)              | TG7-1H40L-N                           | 1    | C37HD-□LB-LIN    | 1    |
|                 | G4Q-TR4A | 32(OUT)             | TG7-1H40L-N                           | 1    | C37HD-□LB-LON    | 1    |
|                 | G4I-D24B | 32(IN)              | TG7-1H40L-P                           | 1    | C37HD-□LB-LIP    | 1    |
|                 | G4Q-TR4B | 32(OUT)             | TG7-1H40L-P                           | 1    | C37HD-□LB-LOP    | 1    |
|                 | G4I-D28A | 64(IN)              | TG7-1H40L-N                           | 2    | C40HF-□LB-LIN1A  | 1    |
|                 |          | 64(IN)              | TG7-1H40L-N                           | 2    | C40HF-□LB-LIN3   | 1    |
|                 | G4Q-TR8A | 64(OUT)             | TG7-1H40L-N                           | 2    | C40HF-□LB-LON1   | 1    |
|                 |          | 64(OUT)             | TG7-1H40L-N                           | 2    | C40HF-□LB-LON3   | 1    |
| GM6 MK-200      | G6I-D24A | 32(IN)              | TG7-1H40L-N                           | 1    | C37HD-□LB-LIN    | 1    |
|                 | G6Q-TR4A | 32(OUT)             | TG7-1H40L-N                           | 1    | C37HD-□LB-LON    | 1    |
|                 | G6I-D24B | 32(IN)              | TG7-1H40L-P                           | 1    | C37HD-□LB-LIP    | 1    |
|                 | G6Q-TR4B | 32(OUT)             | TG7-1H40L-P                           | 1    | C37HD-□LB-LOP    | 1    |
| GM1/2/3 MK-1000 | G3I-D28A | 64(IN)              | TG7-1H40L-N                           | 2    | C40HF-□LB-LIN3   | 2    |
|                 | G3Q-TR8A | 64(OUT)             | TG7-1H40L-N                           | 2    | C40HF-□LB-LON3   | 2    |
|                 | G3Q-TR8B | 64(OUT)             | TG7-1H40L-P                           | 2    | C40HF-□LB-LOP3   | 2    |
|                 | XGI-D24A | 32(IN)              | TG7-1H40L-N                           | 1    | C40HF-□LB-XIN1   | 1    |
| XGT             | XGQ-TR4A | 32(OUT)             | TG7-1H40L-N                           | 1    | C40HF-□LB-XON1   | 1    |
|                 | XGI-D24B | 32(IN)              | TG7-1H40L-P                           | 1    | C40HF-□LB-XIP1   | 1    |
|                 | XGQ-TR4B | 32(OUT)             | TG7-1H40L-P                           | 1    | C40HF-□LB-XOP1   | 1    |
|                 | XGI-D28A | 64(IN)              | TG7-1H40L-N                           | 2    | C40HF-□LB-XIN1   | 2    |
|                 | XGQ-TR8A | 64(OUT)             | TG7-1H40L-N                           | 2    | C40HF-□LB-XON1   | 2    |
|                 | XGI-D28B | 64(IN)              | TG7-1H40L-P                           | 2    | C40HF-□LB-XIP1   | 2    |
|                 | XGQ-TR8B | 64(OUT)             | TG7-1H40L-P                           | 2    | C40HF-□LB-XOP1   | 2    |

### ■ ROCKWELL SAMSUNG PLC (FARA N, NX70, NX700Series)

| PLC Model | I/O Card    | Number of I/O point | Terminal block used at both in/output |      |                  |      |
|-----------|-------------|---------------------|---------------------------------------|------|------------------|------|
|           |             |                     | Terminal                              | Q'ty | Applicable cable | Q'ty |
| N7000     | CPL53027    | 64(IN)              | TG7-1H40L-N                           | 2    | C40HH-□LB-SIN4   | 2    |
|           | CPL53487    | 64(OUT)             | TG7-1H40L-N                           | 2    | C40HH-□LB-SON4   | 2    |
| NX700     | NX700-X32D  | 32(入)               | TG7-1H40L-N                           | 1    | C40HH-□LH-SIN    | 1    |
|           | NX700-X64D  | 64(入)               | TG7-1H40L-N                           | 2    | C40HH-□LH-SIN    | 2    |
|           | NX700-X32T  | 32(出)               | TG7-1H40L-N                           | 1    | C40HH-□LH-SON    | 1    |
|           | NX700-X64T  | 64(出)               | TG7-1H40L-N                           | 2    | C40HH-□LH-SON    | 2    |
|           | NX700-X32RV | 64(出)               | TG7-1H40L-N                           | 2    | C40HH-□LH-SONR   | 2    |

### ■ OMRON PLC (SYSMAC C, CJ1 Series)

| PLC Model | I/O Card    | Number of I/O point | Terminal block used at both in/output |                |                  |      |
|-----------|-------------|---------------------|---------------------------------------|----------------|------------------|------|
|           |             |                     | Terminal                              | Q'ty           | Applicable cable | Q'ty |
| C200H     | C200H-ID216 | 32(IN)              | TG7-1H40L-N                           | 1              | C40HF-□LB-OIN3   | 1    |
|           | C200H-ID218 | 32(IN)              | TG7-1H40L-N                           | 1              | C40HF-□LB-OIN3   | 1    |
|           | C200H-OD218 | 32(OUT)             | TG7-1H40L-N                           | 1              | C40HF-□LB-OON3   | 1    |
|           | C200H-ID217 | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-OIN1   | 1    |
|           |             | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-OIN3   | 1    |
|           | C200H-ID219 | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-OIN1   | 1    |
|           |             | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-OIN3   | 1    |
|           | C200H-OD219 | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HF-□LB-OON1   | 1    |
| 64(OUT)   |             | TG7-1H40L-N         | 2                                     | C40HF-□LB-OON3 | 1                |      |
| CJ1W      | CJ1W-ID231  | 32(IN)              | TG7-1H40L-N                           | 1              | C40HF-□LB-OIN3   | 1    |
|           | CJ1W-ID261  | 64(IN)              | TG7-1H40L-N                           | 2              | C40HF-□LB-OIN1   | 1    |
|           | CJ1W-OD231  | 32(OUT)             | TG7-1H40L-N                           | 1              | C40HF-□LB-OON3   | 1    |
|           |             | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HF-□LB-OON1   | 1    |
|           | CJ1W-OD261  | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HF-□LB-OON3   | 1    |
|           |             | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HF-□LB-OON1   | 1    |
|           | CJ1W-ID232  | 32(IN)              | TG7-1H40L-N                           | 1              | C40HH-□LH-OIN    | 1    |
|           | CJ1W-ID262  | 64(IN)              | TG7-1H40L-N                           | 2              | C40HH-□LH-OIN    | 2    |
|           | CJ1W-OD232  | 32(OUT)             | TG7-1H40L-P                           | 1              | C40HH-□LH-OOP    | 1    |
|           | CJ1W-OD233  | 32(OUT)             | TG7-1H40L-N                           | 1              | C40HH-□LH-OON    | 1    |
|           | CJ1W-OD262  | 64(OUT)             | TG7-1H40L-P                           | 2              | C40HH-□LH-OOP    | 2    |
|           | CJ1W-OD263  | 64(OUT)             | TG7-1H40L-N                           | 2              | C40HH-□LH-OON    | 2    |

### ■ SIEMENS PLC (S7-300)

| I/O Card model      | Number of I/O point | Connector Module         | Terminal block used at both in/output |      |                  |      |
|---------------------|---------------------|--------------------------|---------------------------------------|------|------------------|------|
|                     |                     |                          | Terminal                              | Q'ty | Applicable cable | Q'ty |
| 6ES7 321-1BL00-0AA0 | 32(IN)              | SM-S7-300A               | TG7-1H40L-P                           | 1    | R40HH-□SM-RP     | 1    |
|                     |                     | SM-S7-300B               | TG7-1H40L-P                           | 1    | R40HH-□SM-RP     | 1    |
| 6ES7 322-1BL00-0AA0 | 32(OUT)             | SM-S7-300A               | TG7-1H40L-P                           | 1    | R40HH-□SM-RP     | 1    |
|                     |                     | SM-S7-300B               | TG7-1H40L-P                           | 1    | R40HH-□SM-RP     | 1    |
| 6ES7 323-1BL00-0AA0 | 32 (IN/OUT)         | SM-S7-300A<br>SM-S7-300B | TG7-1H40L-P                           | 1    | R40HH-□SM-RP     | 1    |
| 6ES7 321-1BP00-0AA0 | 64(IN)              | X                        | TG7-1H40L-P                           | 2    | C40HF-□SB-SMP2   | 1    |
|                     |                     |                          |                                       | 2    | C40HF-□SB-SMP3   | 1    |
| 6ES7 322-1BP00-0AA0 | 64(OUT)             | X                        | TG7-1H40L-P                           | 2    | C40HF-□SB-SMP2   | 1    |
|                     |                     |                          |                                       | 2    | C40HF-□SB-SMP3   | 1    |

※ If you write as below when you want other cables for PLC connection not included above tables, it is possible to give you a quotation on it and to manufacture it.

ex) 

|            |           |                      |              |
|------------|-----------|----------------------|--------------|
| PLC Maker  | PLC Model | Terminal block model | Cable length |
| MITSUBISHI | QX41      | TG7-1H40L-N          | 2M           |