



Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com



Instruction Bulletin

**Subject: SY/MAX[®]
CLASS 8030 TYPE HOM-261
8 FUNCTION TTL OUTPUT MODULE**

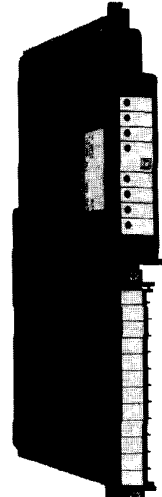
Note: This module requires an external 5VDC power source. This can be either a user supplied 5VDC source or a SY/MAX Class 8030 Type PS Power Supply with a Class 8030 Type CC-40 Cable. When used as a TTL I/O Power Supply, the Class 8030 Type PS Power Supply may only be used for that purpose. To maintain electrical isolation, no other cables may be connected to the power supply. See Power Supply Instruction Bulletin (30598-156-02).

DESCRIPTION:

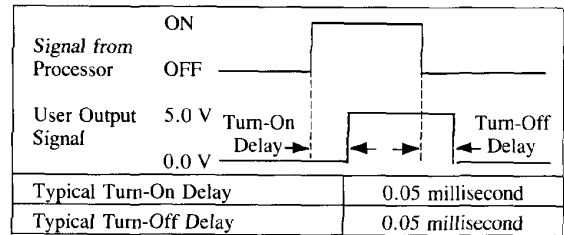
The Type HOM-261 TTL Output Module provides eight optically isolated outputs which can be interfaced to TTL (transistor transistor logic) circuitry or other 5VDC devices. The module utilizes transistor drivers capable of sinking up to 60mA from an externally supplied source, or driving 20mA to an external device. Each output circuit configuration is switch selectable between an open collector or active pull-up mode by means of a DIP switch accessible from the bottom of the module. Eight LEDs on the face of the module provide status indication for the individual outputs. An illuminated LED indicates a high level logic 1 output voltage.

SPECIFICATIONS

Outputs per Module 8
Type and Rated Isolation
Between Output Terminal
and Logic Optical: 2500 V RMS
Logic Information and User
Requirements:



Output Module Switching Characteristics:



PARAMETERS	LOGIC 0	LOGIC 1	
	Low	Open Collector (DIP switch OFF)	Active Pull-Up (DIP switch ON)
Output Voltage	0.0V min. to 0.4V max.	20.0 V max.	2.4V min 5.50V max.
Module Current Sink Capability	60mA max. at 0.4V	—	
Module Current Source Capability	—	Active Pull-Up 20mA max. at 2.4V	
Leakage Current	—	Open Collector 1.0uA max. at 20.0V	
User Supply Voltage Requirements	5VDC (± 0.25V) at 170mA max. 100mV (p-p) ripple		
LED Operation	OFF	ON	
Signal from Processor	OFF	ON	

Switching Frequency 4KHz max.
Rated Module Current Draw on SY/MAX Power Supply 225mA per Module at 75% Duty Cycle
275mA per Module at 100% Duty Cycle
Ambient Temperature Rating . . 0 - 60°C
Humidity Rating 0 - 95% non-condensing
Weight 1.2 lb/0.54 kg.
Rack Assemblies in Which Module May be Used HRK100, HRK150, HRK200
Compatibility with Output Modules CIM-151. HIM-151
Detachable Terminal Blocks CBP-110
Ten Terminal Labels CBP-109

TYPICAL WIRING

Output devices are wired to the removable terminal block on the front of the module. Figure 1 illustrates the typical wiring for the first four outputs of the HOM-261 TTL Output Module. Wiring terminals 1 through 4 share a common "1A" and "1B" terminal. Wiring terminals 5 through 8 share common terminals "2A" and "2B". Each group of four outputs on the module is capable of being connected to a separate voltage supply. If only one voltage supply is used for more than

© Square D Company, 1984

NEW LISTING
Printed in U.S.A.

RG



one module, the "1B" and "2B" terminals for each terminal block may be connected together and "1A" and "2A" terminals of each terminal block may be connected together.

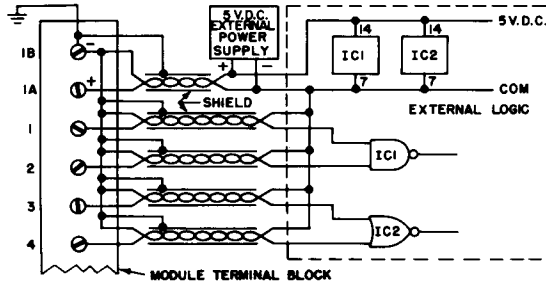


Figure 1 — Typical Wiring

A hinged plastic flap covers the wiring terminals on the front of the module. Labels are provided for both sides of the flap. See Figure 2. The label with eight marking areas is placed on the outside of the flap to identify I/O devices, wire numbers, etc. Two wiring terminal labels are included with the module. One is for terminals 1 through 8, the other for terminals 9 through 16. If the module is inserted in an ODD number slot, the terminal 1 through 8 label is placed on the inside of the flap. If the module is placed in an EVEN number slot, use the terminals 9 through 16 label. See Figure 3.

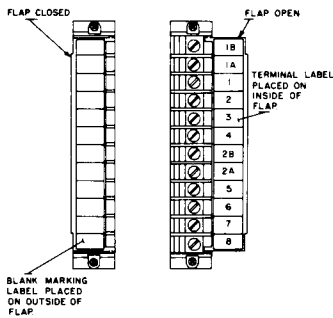


Figure 2
I/O Terminal Labels

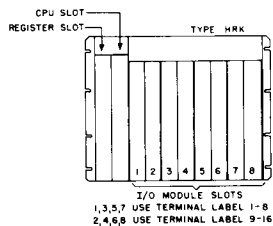


Figure 3
Terminal Label Placement

APPLICATION CONSIDERATIONS

- External power supply connections to terminals "1A" and "1B" will power outputs 1-4. Terminals "2A" and "2B" will power outputs 5-8. If one supply is to be used, "1A" and "2A", "1B" and "2B" terminals can be wired together.
- By removing the top and bottom retaining screws the terminal block may be removed from the module, allowing the module to be replaced without disturbing field wiring.
- Depending on the size and routing of wiring to the terminals, it may be necessary to remove an adjacent terminal block before removing an I/O module.
- The polarity of the wires connected to the terminals "A" (+) and "B" (-) must be as indicated or damage to the Module will occur (Figure 1).
- Only shielded twisted pair cable, such as Beldon No. 8760, should be used when connecting the TTL output module to an external device. The maximum length of cable depends on the current level of the signal between the output module

and the output device. If the current level is in the range of 1.6mA to 10mA, the maximum cable length is 10 feet. If the current level is greater than 10mA, the maximum cable length is 50 feet.

- The output common terminal "1B" and "2B" on the module should be connected to the ground to minimize noise susceptibility. Each individual cable shield must also be connected to the common terminals "1B" and "2B" on the module. The other end of the shield must be left unconnected (Figure 1).
- If the output module and external device connected to it do not share the same power supply, the commons of both power supplies must be connected together.
- If a TTL output module is connected to the input of a TTL input module, the cable shields should be connected to the "B" terminals, (common) on the output module.
- For maximum noise immunity, use the active pull-up mode.

MODULE KEYING

Each socket on the rack may be keyed to accept only one type of module. An optional keying pin kit, Class 8030 Type CBP-104, is available for this purpose. The correct position of the keying pin for the Type HOM-261 TTL Output Module is between pins 28 and 30. See Figure 4. The keying pin is simply inserted manually into the slot of the I/O rack connector using the keying pin insertion tool provided with the kit. See Figure 5.

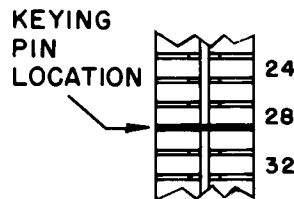


Figure 4
Keying Pin Location

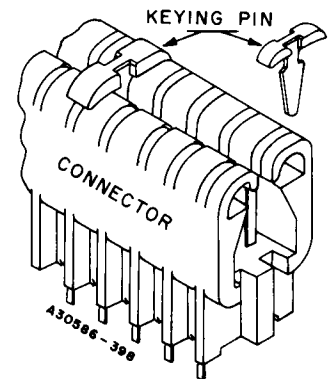


Figure 5
Inserting Keying Pin

CAUTION: When inserting or removing the keying pins, use care to avoid touching the contact fingers within the connector. Improper insertion/removal may damage the connector.

INSTALLATION INSTRUCTIONS

Insert the key mentioned above into the appropriate slot. Then before inserting the module in the rack, set the DIP switches to select the open collector or active pull-up circuit for each individual output. The DIP switches are accessible through the bottom of the module. Simply set the switch in the "ON" position (towards the PC board) to select active pull-up or set the switch in the "OFF" position to select open collector (Figure 6). After setting the DIP switches to the desired position, insert the module into the rack slot (holding

the module's pull tab in a horizontal position as the module is inserted) and tighten the captive screw at the bottom of the module. Lower the latching clamp to secure the top of the module.

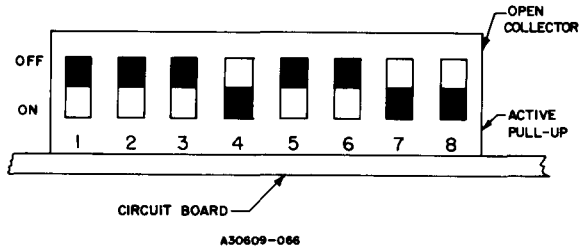


Figure 6 — Module DIP Switches

SIMPLIFIED SCHEMATIC OF MODULE

Figure 7 illustrates one of eight circuits within the module. The terminals marked "1A" and "1B" are common to the first four outputs within the module.

NOTE: The switch labeled "S1", when closed, selects the active pull-up circuit configuration.

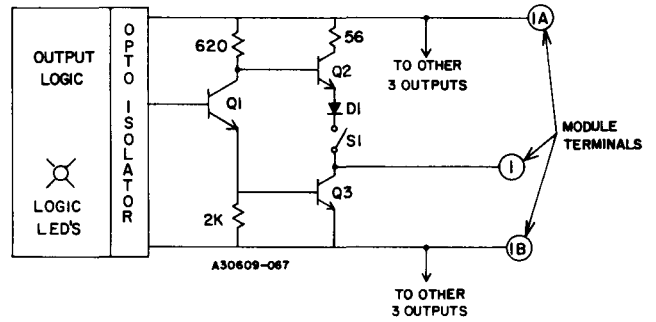


Figure 7 — Simplified Schematic of One Output Module Circuit



Artisan Technology Group is your source for quality new and certified-used/pre-owned equipment

- FAST SHIPPING AND DELIVERY
- TENS OF THOUSANDS OF IN-STOCK ITEMS
- EQUIPMENT DEMOS
- HUNDREDS OF MANUFACTURERS SUPPORTED
- LEASING/MONTHLY RENTALS
- ITAR CERTIFIED SECURE ASSET SOLUTIONS

SERVICE CENTER REPAIRS

Experienced engineers and technicians on staff at our full-service, in-house repair center

*InstraView*SM REMOTE INSPECTION

Remotely inspect equipment before purchasing with our interactive website at www.instraview.com ↗

WE BUY USED EQUIPMENT

Sell your excess, underutilized, and idle used equipment. We also offer credit for buy-backs and trade-ins. www.artisanng.com/WeBuyEquipment ↗

LOOKING FOR MORE INFORMATION?

Visit us on the web at www.artisanng.com ↗ for more information on price quotations, drivers, technical specifications, manuals, and documentation

Contact us: (888) 88-SOURCE | sales@artisanng.com | www.artisanng.com