HYUNDAI
SECURITY DEVICE

Input / Output module
HYU-FA-IOM001-1

User Manual

GENUINE PRODUCT OF
HYUNDAI CORPORATION

Cautions

ELECTRICAL HAZARD: Disconnect power from equipment prior to making any internal adjustments. Service should only be performed by qualified personnel.

FRAGILE: Inspect the equipment prior to installation. Do not install the equipment if damage is apparent. Do not attempt to disassemble this equipment. If damaged, return to the supplier.

ELECTROSTATIC HAZARD: This is sensitive electronic equipment. Apply safe ant-static practices when handling this equipment.

CIRCUIT LIMITATIONS: The maximum number of devices connected to a single alarm zone is limited by the control and indicating equipment, and may be limited by local regulations.

Introduction

621 analogue addressable single input/output modules provide the interface to connect an electrically isolated dry-contact switched input to Otanc 2-wire addressable fire detection control and indicating equipment.

These instructions provide trained installation personnel with details to install and commission 621 input modules for optimum performance.

Preparation

Before commencing installation, ensure all equipment and tools to mount and connect the equipment are available, such as drills, mounting screws, cables and ladders.

Installation

Back-box

1. Knock out or drill out back-box cable-entry holes in the side or rear, appropriate for the wiring routing used for the installation.
2. Feed the conductors through the hole(s) using cable glands.
3. Mount the back-box to the wall using fixing screws that are suitable to securely fix the back-box to the surface.

Address Setting

Select the module address and set the address as shown in Table 1 by adjusting the DIP switch settings located on the PCB assembly.

Note 1: For ST protocol, addresses 1~125 can be used.

For XP protocol, addresses 1~250 can be used.

Note 2: Cut off the power first, whenever the DIP switch need to be adjusted.

Wiring

The terminals accept (0.4 ~ 2.5) mm^2 conductors.

Strip the conductor insulation to expose 5 mm of the conductor.

Note: A 22 kΩ resistor is fitted to the input terminals. A 4k7 Ω resistor is supplied for connection in series with the input contacts.

WARNING: Take care to ensure the insulation does not get clamped by the terminal contact.

621-002 Wiring

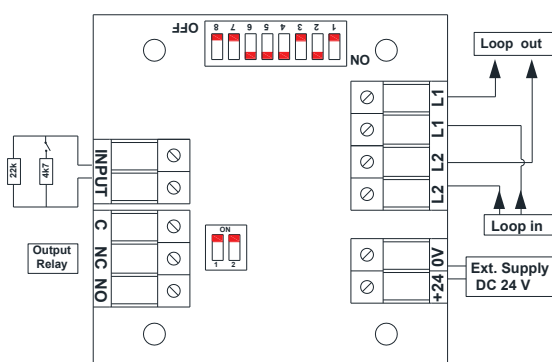Connect the conductors to the terminals as shown in Fig. 1.

Fig. 1:   **terminal connections**

(With Isolator) Wiring

Connect the conductors to the terminals as shown in Fig. 2.
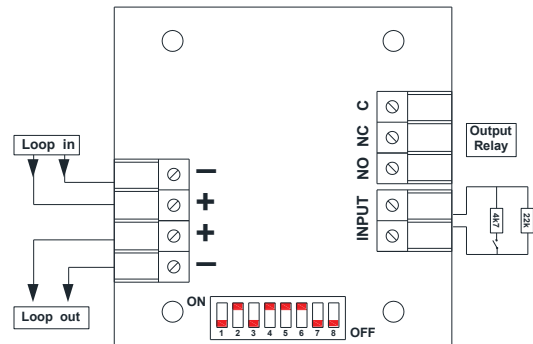

Fig. 2:   **terminal connections**

Output Relay Power Selection (where fitted)

For   , select whether the relay coil is powered from the alarm zone loop or an external DC 24 V supply (see Fig. 3).
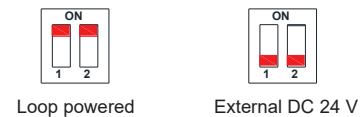

Loop powered   External DC 24 V

Fig. 3: Output relay   terminal connections

Assembly

1. Replace the cover assembly to the back-box.
2. Install and tighten cover using the M3 ×25 screws supplied.
3. Insert the screw-hole covers.

WARNING: Do not use excessive force.

Commissioning

Initial Conditions

1. Ensure all the alarm signal services, releasing devices and extinguisher systems are disabled during the commissioning period.
2. Install devices in the non-addressable alarm zone.

Note: A 22 kΩ resistor is fitted to the input terminals. A 4k7 Ω resistor is supplied for connection in series with the input contacts.

3. Connect power to the module.
4. Check that the Polling indicator flashes and the control and indicating equipment is in the quiescent condition.

Alarm Input Function

1. Place the input device into Alarm.
2. Check that the Alarm indicator is illuminated and the condition is reported at the control and indicating equipment.
3. Reset the input device (if required), and then the control and indicating equipment.
4. Check that the Alarm indicator is not illuminated.

Input Short-circuit Function

1. Place a short circuit on the input wiring.
2. Check that a Fault condition is reported at the control and indicating equipment.
3. Remove the short circuit.
4. Check that the Fault condition resets at the control and indicating equipment.

Input Open-circuit Function

1. Open circuit the input wiring.
2. Check that a Fault condition is reported at the control and indicating equipment.

3. Reconnect the wiring.

4. Check that the Fault condition resets at the control and indicating equipment.

Output Relay Function

1. Initiate an action message from the control and indicating equipment.

Note: The message and procedure will depend on the capability and configuration of the control and indicator equipment.

2. Check that the relay activates, and the red relay indicator is illuminated.

3. Reset the action message from the control and indicating equipment.

4. Check that the relay de-activates and the red relay indicator is off.

Loop Isolator (where fitted)

1. Apply a short circuit to the Loop Out wiring.

2. Check that the yellow Isolator indicator is on.

3. Check that the status of devices connected to the Loop In side of the alarm zone wiring remains unchanged at the control and indicating equipment.

4. Remove the short circuit.

5. Check that the yellow Isolator indicator is off.

6. Check that devices connected to the Loop Out side of the alarm zone return to their previous conditions at the control and indicating equipment.

Final Conditions

Ensure all the alarm signal services, releasing devices and extinguisher systems disabled for the commissioning are returned to their previous condition.

Table 1 – DIP switch address settings

Addresses 1-125

Each cell lists the switches set to **ON** followed by the resulting address.

Address	Switches ON	Address	Switches ON	Address	Switches ON	Address	Switches ON
01	1	02	2	03	1 2	04	3
05	1 3	06	2 3	07	1 2 3	08	4
09	1 4	10	2 4	11	1 2 4	12	3 4
13	1 3 4	14	2 3 4	15	1 2 3 4	16	5
17	1 5	18	2 5	19	1 2 5	20	3 5
21	1 3 5	22	2 3 5	23	1 2 3 5	24	4 5
25	1 4 5	26	2 4 5	27	1 2 4 5	28	3 4 5
29	1 3 4 5	30	2 3 4 5	31	1 2 3 4 5	32	6
33	1 6	34	2 6	35	1 2 6	36	3 6
37	1 3 6	38	2 3 6	39	1 2 3 6	40	4 6
41	1 4 6	42	2 4 6	43	1 2 4 6	44	3 4 6
45	1 3 4 6	46	2 3 4 6	47	1 2 3 4 6	48	5 6
49	1 5 6	50	2 5 6	51	1 2 5 6	52	3 5 6
53	1 3 5 6	54	2 3 5 6	55	1 2 3 5 6	56	4 5 6
57	1 4 5 6	58	2 4 5 6	59	1 2 4 5 6	60	3 4 5 6
61	1 3 4 5 6	62	2 3 4 5 6	63	1 2 3 4 5 6	64	7
65	1 7	66	2 7	67	1 2 7	68	3 7
69	1 3 7	70	2 3 7	71	1 2 3 7	72	4 7
73	1 4 7	74	2 4 7	75	1 2 4 7	76	3 4 7
77	1 3 4 7	78	2 3 4 7	79	1 2 3 4 7	80	5 7
81	1 5 7	82	2 5 7	83	1 2 5 7	84	3 5 7
85	1 3 5 7	86	2 3 5 7	87	1 2 3 5 7	88	4 5 7
89	1 4 5 7	90	2 4 5 7	91	1 2 4 5 7	92	3 4 5 7
93	1 3 4 5 7	94	2 3 4 5 7	95	1 2 3 4 5 7	96	6 7
97	1 6 7	98	2 6 7	99	1 2 6 7	100	3 6 7
101	1 3 6 7	102	2 3 6 7	103	1 2 3 6 7	104	4 6 7
105	1 4 6 7	106	2 4 6 7	107	1 2 4 6 7	108	3 4 6 7
109	1 3 4 6 7	110	2 3 4 6 7	111	1 2 3 4 6 7	112	5 6 7
113	1 5 6 7	114	2 5 6 7	115	1 2 5 6 7	116	3 5 6 7
117	1 3 5 6 7	118	2 3 5 6 7	119	1 2 3 5 6 7	120	4 5 6 7
121	1 4 5 6 7	122	2 4 5 6 7	123	1 2 4 5 6 7	124	3 4 5 6 7
125	1 3 4 5 6 7						

Addresses 126~250

Addresses 126-250 only for XP protocol products

Address	Switches ON	Address	Switches ON	Address	Switches ON	Address	Switches ON
126	2 3 4 5 6 7	127	1 2 3 4 5 6 7	128	8		
129	1 8	130	2 8	131	1 2 8	132	3 8
133	1 3 8	134	2 3 8	135	1 2 3 8	136	4 8
137	1 4 8	138	2 4 8	139	1 2 4 8	140	3 4 8
141	1 3 4 8	142	2 3 4 8	143	1 2 3 4 8	144	5 8
145	1 5 8	146	2 5 8	147	1 2 5 8	148	3 5 8
149	1 3 5 8	150	2 3 5 8	151	1 2 3 5 8	152	4 5 8
153	1 4 5 8	154	2 4 5 8	155	1 2 4 5 8	156	3 4 5 8
157	1 3 4 5 8	158	2 3 4 5 8	159	1 2 3 4 5 8	160	6 8
161	1 6 8	162	2 6 8	163	1 2 6 8	164	3 6 8
165	1 3 6 8	166	2 3 6 8	167	1 2 3 6 8	168	4 6 8
169	1 4 6 8	170	2 4 6 8	171	1 2 4 6 8	172	3 4 6 8
173	1 3 4 6 8	174	2 3 4 6 8	175	1 2 3 4 6 8	176	5 6 8
177	1 5 6 8	178	2 5 6 8	179	1 2 5 6 8	180	3 5 6 8
181	1 3 5 6 8	182	2 3 5 6 8	183	1 2 3 5 6 8	184	4 5 6 8
185	1 4 5 6 8	186	2 4 5 6 8	187	1 2 4 5 6 8	188	3 4 5 6 8
189	1 3 4 5 6 8	190	2 3 4 5 6 8	191	1 2 3 4 5 6 8	192	7 8
193	1 7 8	194	2 7 8	195	1 2 7 8	196	3 7 8
197	1 3 7 8	198	2 3 7 8	199	1 2 3 7 8	200	4 7 8
201	1 4 7 8	202	2 4 7 8	203	1 2 4 7 8	204	3 4 7 8
205	1 3 4 7 8	206	2 3 4 7 8	207	1 2 3 4 7 8	208	5 7 8
209	1 5 7 8	210	2 5 7 8	211	1 2 5 7 8	212	3 5 7 8
213	1 3 5 7 8	214	2 3 5 7 8	215	1 2 3 5 7 8	216	4 5 7 8
217	1 4 5 7 8	218	2 4 5 7 8	219	1 2 4 5 7 8	220	3 4 5 7 8
221	1 3 4 5 7 8	222	2 3 4 5 7 8	223	1 2 3 4 5 7 8	224	6 7 8
225	1 6 7 8	226	2 6 7 8	227	1 2 6 7 8	228	3 6 7 8
229	1 3 6 7 8	230	2 3 6 7 8	231	1 2 3 6 7 8	232	4 6 7 8
233	1 4 6 7 8	234	2 4 6 7 8	235	1 2 4 6 7 8	236	3 4 6 7 8
237	1 3 4 6 7 8	238	2 3 4 6 7 8	239	1 2 3 4 6 7 8	240	5 6 7 8
241	1 5 6 7 8	242	2 5 6 7 8	243	1 2 5 6 7 8	244	3 5 6 7 8
245	1 3 5 6 7 8	246	2 3 5 6 7 8	247	1 2 3 5 6 7 8	248	4 5 6 7 8
249	1 4 5 6 7 8	250	2 4 5 6 7 8				

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