

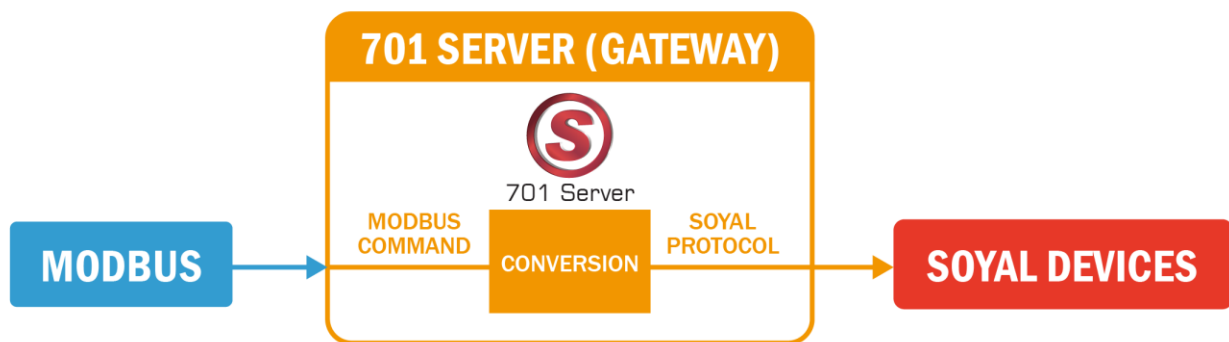
## MODBUS COMMAND

SOYAL access controller compatible with standard BMS and SCADA communication protocol Modbus, provides integration between input and output devices with access controller for building automation system easier. We provide 'get' and 'set' Modbus command for SOYAL access controller.

### APPLICABLE TO:

SOYAL Enterprise Series, SOYAL Home Series, SOYAL Control Panel Series, SOYAL IO Series VIA 701 SERVER

### SCHEMATIC DIAGRAM:



### IMPLEMENTATION STEPS:

I/O Mapping (Controller IO & Modbus IO Corresponding Table):

- I. Home Series DO
- II. Home Series DI
- III. Enterprise Series & Control Panel AR-716-E16 DO
- IV. Enterprise Series & Control Panel AR-716-E16 DI
- V. Controller Wired under Control Panel AR-716-E16 CH1 DO
- VI. Controller Wired under Control Panel AR-716-E16 CH2 DO
- VII. Controller Wired under Control Panel AR-716-E16 CH1 DI
- VIII. Controller Wired under Control Panel AR-716-E16 CH2 DI

#### I. Home Series (H Series)

Controller IO & Modbus IO Corresponding Table: **DO**

DO-0			
Pp	Controller Functions	Status	Value
00	Door Relay	On/Off	1/0
01	Alarm Relay	On/Off	1/0
02			1/0
03			1/0
04			1/0
05			1/0
06			1/0
07			

08			
09			
10			
11			
12			
13			
14			
15			

## II. Home Series (H Series)

Controller IO & Modbus IO Corresponding Table: **DI**

DI-0			
Pp	Controller Functions	Status	Value
00	Door Sensor	Open/Close	1/0
01	Arm Status	ARMING/Disarm	1/0
02	Egress	Close/Open	1/0
03	Alarm Status (Force or Open too long)	On/Off	
04	Door Open too Long	On/Off	
05	Force Open Alarm (Illegally Open)	On/Off	
06	Duress Alarm	On/Off	
07			
08			
09			
10			
11			
12			
13			
14			
15	Online	Under Multi Door Control Panel AR-716-E16 RS485 Connection Status	

511	Fire State		1/0
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## III. Enterprise Series & Control Panel AR-716-E16

Controller IO & Modbus IO Corresponding Table: **DO**

D0-0										
Main	WG							Function	Status	Value
256	272							Door Relay	On/Off	1/0
257	273							Alarm Relay	On/Off	1/0
258	274									1/0
259	275									1/0
260	276									1/0
261	277									1/0
262	278									1/0
263	279								On/Off	1/0
264	280									
265	281									
266	282									
267	283									
268	284									
269	285									
270	286									
271	287									

#### IV. Enterprise Series & Control Panel AR-716-E16

Controller IO & Modbus IO Corresponding Table: **DI**

DI-0										
Main	WG							Function	Status	Value
256	272							Door Sensor	On/Off	1/0
257	273							Arm Status	On/Off	1/0
258	274							Egress		1/0
259	275							Alarm Status (Force /Open too		1/0
260	276							Door Open too Long		1/0
261	277							Force Open Alarm		1/0
262	278							Duress Alarm		1/0
263	279								On/Off	1/0
264	280									
265	281									
266	282									
267	283									
268	284									
269	285									
270	286									
271	287							On Line / Off Line	On/Off	1/0
511								Fire Alarm State		1/0

## V. Controller Wired under Control Panel AR-716-E16 CH1

Controller IO & Modbus IO Corresponding Table: **DO**

Controller Node ID (CH1)										
01	02	03	04	05	06	07	08	Function	Status	Value
0	16	32	48	64	80	96	11	Door Relay	On/Off	1/0
1	17	33	49	65	81	97	11	Alarm Relay	On/Off	1/0
2	18	34	50	66	80	98	11			1/0
3	19	35	51	67	83	99	11			1/0
4	20	36	52	68	84	10	11			1/0
5	21	37	53	69	85	10	11			1/0
6	22	38	54	70	86	10	11			1/0
7	23	39	55	71	87	10	11			1/0
8	24	40	56	72	88	10	12			
9	25	41	57	73	89	10	12			
10	26	42	58	74	90	10	12			
11	27	43	59	75	91	10	12			
12	28	44	60	76	92	10	12			
13	29	45	61	77	93	10	12			
14	30	46	62	78	94	11	12			
15	31	47	63	79	95	11	12			

## VI. Controller Wired under Control Panel AR-716-E16 CH2

Controller IO & Modbus IO Corresponding Table: **DO**

Controller Node ID (CH 2)										
09	10	11	12	13	14	15	16	Function	Status	Value
12	14	16	17	19	20	22	24	Door Relay	On/Off	1/0
12	14	16	17	19	20	22	24	Alarm Relay	On/Off	1/0
13	14	16	17	19	21	22	24			1/0
13	14	16	17	19	21	22	24			1/0
13	14	16	18	19	21	22	24			1/0
13	14	16	18	19	21	22	24			1/0
13	15	16	18	19	21	23	24			1/0
13	15	16	18	19	21	23	24			1/0
13	15	16	18	20	21	23	24			
13	15	17	18	20	21	23	25			
13	15	17	18	20	21	23	25			
14	15	17	18	20	22	23	25			
14	15	17	18	20	22	23	25			
14	15	17	19	20	22	23	25			
14	15	17	19	20	22	23	25			

**VII. Controller Wired under Control Panel AR-716-E16 CH1**

 Controller IO & Modbus IO Corresponding Table: **DI**

Controller Node ID (CH 1)										
01	02	03	04	05	06	07	08	Function	Status	Value
0	16	32	48	64	80	96	112	Door Sensor	Open/Close	1/0
1	17	33	49	65	81	97	113	Arm Status	Arm/Disarm	1/0
2	18	34	50	66	80	98	114	Egress	Close/Open	1/0
3	19	35	51	67	83	99	115	Alarm On (Force or Open	On/Off	1/0
4	20	36	52	68	84	10	116	Door Open too Long	On/Off	1/0
5	21	37	53	69	85	10	117	Force Open Alarm	On/Off	1/0
6	22	38	54	70	86	10	118	Duress Alarm	On/Off	1/0
7	23	39	55	71	87	10	119			1/0
8	24	40	56	72	88	10	120			
9	25	41	57	73	89	10	121			
10	26	42	58	74	90	10	122			
11	27	43	59	75	91	10	123			
12	28	44	60	76	92	10	124			
13	29	45	61	77	93	10	125			
14	30	46	62	78	94	11	126			
15	31	47	63	79	95	11 1	127	RS485 Reader On Line / Off Line	On/Off	1/0

**VIII. Controller Wired under Control Panel AR-716-E16 CH2**

 Controller IO & Modbus IO Corresponding Table: **DI**

Controller Node ID (CH 2)										
09	10	11	12	13	14	15	16	Function	Status	Value
128	144	160	176	192	208	224	240	Door Sensor	Open/Close	1/0
129	145	161	177	193	209	225	241	Arm Status	Arm/Disarm	1/0
130	146	162	178	194	210	226	242	Egress	Close/Open	1/0
131	147	163	179	195	211	227	243	Alarm On (Force or Open too	On/Off	1/0
132	148	164	180	196	212	228	244	Door Open too Long	On/Off	1/0
133	149	165	181	197	213	229	245	Force Open Alarm	On/Off	1/0
134	150	166	182	198	214	230	246	Duress Alarm	On/Off	1/0
135	151	167	183	199	215	231	247			1/0
136	152	168	184	200	216	232	248			
137	153	169	185	201	217	233	249			
138	154	170	186	202	218	234	250			
139	155	171	187	203	219	235	251			
140	156	172	188	204	22	236	252			
141	157	173	189	205	221	237	253			

142	158	174	190	206	222	238	254			
143	159	175	191	207	223	239	255	RS485 Reader On Line / Off	On/Off	1/0
511								Fire State	On/Off	1/0

