GOLDLINE®

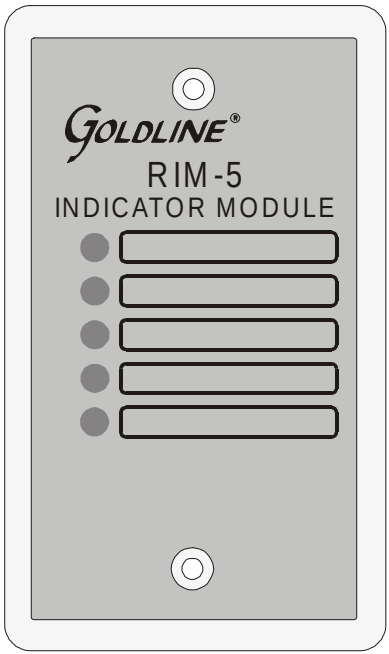
RIM-5

Remote Indication Module

Description

The RIM-5 is a five channel 24V Indication Module for use with a single RAM (optional audible alarm module) and multiple controls or alarm sensing devices. The RIM-5 contains five LED lamps on a standard size wallplate. When an alarm is initiated by a contact closure feeding 24V to one of the channels of the RIM-5, the corresponding LED is illuminated, and the 24V signal is passed on to the RAM for an audible indication. With a glance, the RIM-5 allows the user to visually determine which alarm has been initiated. Safe class 2 wiring allows easy remote mounting from the control location.

The RIM-5 is ideal for use with Goldline SP temperature controls to provide multiple point temperature alarm systems. Up to five controls may be used with the RIM-5. A box next to each LED allows the user to label the application being monitored. Just write in a description with pen or marker and the user can quickly determine which area is in alarm when the LED is illuminated.



Specifications

Inputs: 5, 24V AC/DC +/-10%; 1.5VA

Output: 24V Halfwave dc to RAM

Operating Temperature: -30º to 130

Operating Humidity: 0-95% non-condensing

Installation

The RIM-5 may be mounted in any location, at any distance from controls or alarm sensing devices that provide a contact closure of 24V. The module is designed to be mounted to a standard single gang electrical box. The wiring diagram below shows the RIM-5 wired to five Goldline SP temperature controls. If other alarm sensing devices or controls are to be used, wire similarly. Up to five devices can be wired in this manner. Screw terminals on the RIM-5 are provided for both input and output wiring

Input wiring

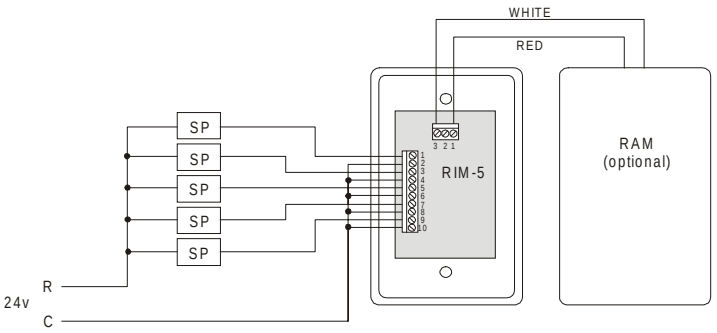
The large 10 position screw terminal block on the RIM-5 is used for input wiring from the output of controls or alarm sensing devices. Input voltage for the RIM-5 must be 24VAC or 24VDC. Even numbered screw terminals are used for the "neutral" or "negative" legs, and odd numbered screw terminals are used for the "hot" or "positive" legs. The output of each control or alarm device should be wired to one of five consecutive screw terminal pairs: 1&2, 3&4, 5&6, 7&8 or 9&10. Each one of these pairs has a corresponding LED which will light when there is input voltage. For example, if there is just one control/alarm device, wire to the input screw terminals labeled "1" & "2". When the control/alarm device output is on (24v to the RIM-5), the #1 LED (top) will light. NOTE: When using more than one control/alarm device, 24v from each device must be from the same source.

Output wiring

The small 3 position screw terminal block on the RIM-5 is used for output wiring to other alarm devices (horns, buzzers, lights, etc). Wire the "hot" or "positive" leg of the alarm device to the screw terminal labeled "1". Wire the "neutral" or "negative" leg of the alarm device to the screw terminal labeled "3". There is no connection at "2". When the RIM-5 receives 24v on any channel, it will output 24v (from the same source) to the alarm device wired to the output.

Operation

The RIM-5 may be used as an indication module for Independent Energy SP controls, or any other devices capable of making a contact closure of 24VAC. When an off temperature condition exists, the alarm device will make a contact closure which supplies the RIM-5 with 24V. The corresponding LED will illuminate as the RIM-5 passes the 24V on to a RAM or other device through the output terminals. If this condition returns to normal (alarm device opens contacts) the LED will go off and there will be no voltage at the red and white leads. Operation is very straightforward as there are no adjustments or settings on the RIM-5. A quick check can be performed on the RAM to verify that it is functioning properly. Apply 24V to the RIM-5 at any one of the five inputs. The corresponding LED should be on and there should be 24V at the output terminals.



Technical Assistance

For help in installing, operating, or troubleshooting this control you may call for technical assistance at **800-343-0826**. Independent Energy's technicians are available from 8:00AM — 5:00PM Eastern Time, Monday through Friday. You may call at other times and leave a message, and a technician will call you back as soon as possible.

Temperature vs. Resistance

All Goldline controls use 10K thermistor sensors. When disconnected from the control the sensor will read 10 K ohms at 25°C/77°F. Refer to the chart below for the resistance at other temperatures. For a given temperature, the resistance reading should be accurate to +/- 1%. For a given resistance reading, the temperature reading should be accurate to +/- 0.5°F.

°F	OHM	°F	OHM	°F	OHM	°F	OHM	°F	OHM	°F	OHM	°F	OHM
-50	491,142	0	85,387	50	19,900	100	5,827	150	2,044	200	829	250	378
-49	472,642	1	82,719	51	19,377	101	5,697	151	2,005	201	815	251	373
-48	454,909	2	80,142	52	18,870	102	5,570	152	1,966	202	802	252	367
-47	437,907	3	77,656	53	18,377	103	5,446	153	1,929	203	788	253	362
-46	421,602	4	75,255	54	17,899	104	5,326	154	1,892	204	775	254	357
-45	405,965	5	72,937	55	17,435	105	5,208	155	1,856	205	763	255	352
-44	390,966	6	70,698	56	16,985	106	5,094	156	1,821	206	750	256	347
-43	376,577	7	68,535	57	16,548	107	4,982	157	1,787	207	738	257	342
-42	362,770	8	66,447	58	16,123	108	4,873	158	1,753	208	726	258	337
-41	349,522	9	64,428	59	15,711	109	4,767	159	1,720	209	714	259	332
-40	336,804	10	62,479	60	15,310	110	4,664	160	1,688	210	702	260	327
-39	324,597	11	60,595	61	14,921	111	4,563	161	1,657	211	691	261	323
-38	312,876	12	58,774	62	14,543	112	4,464	162	1,626	212	680	262	318
-37	301,622	13	57,014	63	14,176	113	4,368	163	1,596	213	669	263	314
-36	290,813	14	55,313	64	13,820	114	4,274	164	1,567	214	658	264	309
-35	280,433	15	53,669	65	13,473	115	4,183	165	1,538	215	648	265	305
-34	270,460	16	52,078	66	13,136	116	4,094	166	1509	216	637	266	301
-33	260,878	17	50,541	67	12,809	117	4,007	167	1,482	217	627	267	296
-32	251,670	18	49,054	68	12,491	118	3,922	168	1,455	218	617	268	292
-31	242,821	19	47,616	69	12,182	119	3,839	169	1,428	219	607	269	288
-30	234,316	20	46,225	70	11,882	120	3,758	170	1,402	220	598	270	284
-29	226,138	21	44,879	71	11,589	121	3,679	171	1,377	221	588	271	280
-28	218,276	22	43,577	72	11,305	122	3,602	172	1,352	222	579	272	276
-27	210,716	23	42,318	73	11,029	123	3,527	173	1,328	223	570	273	273
-26	203,445	24	41,099	74	10,761	124	3,454	174	1,304	224	561	274	269
-25	196,451	25	39,919	75	10,500	125	3,382	175	1,281	225	553	275	265
-24	189,722	26	38,777	76	10,246	126	3,312	176	1,258	226	544	276	262
-23	183,248	27	37,671	77	9,999	127	3,244	177	1,235	227	536	277	258
-22	177,019	28	36,601	78	9,758	128	3,177	178	1,213	228	527	278	255
-21	171,023	29	35,565	79	9,525	129	3,112	179	1,192	229	519	279	251
-20	165,251	30	34,561	80	9,297	130	3,049	180	1,171	230	511	280	248
-19	159,696	31	33,590	81	9,076	131	2,987	181	1,150	231	503	281	244
-18	154,347	32	32,648	82	8,861	132	2,926	182	1,130	232	496	282	241
-17	149,197	33	31,737	83	8,651	133	2,867	183	1,110	233	488	283	238
-16	144,236	34	30,853	84	8,447	134	2,809	184	1,091	234	481	284	235
-15	139,458	35	29,998	85	8,249	135	2,752	185	1,072	235	473	285	232
-14	134,855	36	29,169	86	8,056	136	2,697	186	1,054	236	466	286	229
-13	130,420	37	28,365	87	7,867	137	2,643	187	1,035	237	459	287	225
-12	126,147	38	27,587	88	7,684	138	2,591	188	1,017	238	452	288	223
-11	122,030	39	26,832	89	7,506	139	2,539	189	1,000	239	445	289	220
-10	118,061	40	26,100	90	7,333	140	2,489	190	983	240	439	290	217
-9	114,235	41	25,391	91	7,164	141	2,440	191	966	241	432	291	214
-8	110,547	42	24,704	92	6,999	142	2,392	192	950	242	426	292	211
-7	106,991	43	24,037	93	6,839	143	2,345	193	933	243	420	293	208
-6	103,561	44	23,391	94	6,683	144	2,299	194	918	244	413	294	206
-5	100,254	45	22,764	95	6,530	145	2,254	195	902	245	407	295	203
-4	97,063	46	22,156	96	6,382	146	2,210	196	887	246	401	296	200
-3	93,986	47	21,566	97	6,238	147	2,167	197	872	247	395	297	198
-2	91,017	48	20,993	98	6,097	148	2,125	198	857	248	390	298	195
-1	88,152	49	20,438	99	5,960	149	2,084	199	843	249	384	299	193
												300	190

INDEPENDENT ENERGY INC P.O. Box 1305, (401) 884-6990 42 Ladd Street, (800) 343-0826 East Greenwich, RI 02818 (401) 885-1500 fax

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