EN

S112A
AMPLIFIER FOR ON/OFF SENSORS - UNIVERSAL INPUT
INCORPORATED PILSES DIVIDER - RELAY OUTPUT

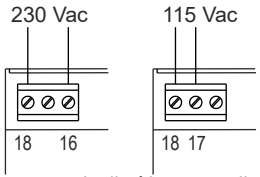
S112A is an amplifer for ON/OFF sensors with the following features :

- **Inputs:** optoisolated to receive signals from sensors : reed (contact), NPN 2 wires, NPN 3 wires 24Vdc and 12Vdc , PNP 2 wires, PNP 3 wires 24Vdc, Namur sensor 8Vdc, photoelectric sensor.
  Max frequency 400Hz, pulse min 2ms.
- **Divider:** you can divide pulses in input by a programmable factor from 1 to 256 by 8 DIP-switches.
- **Output:** one relay with SPDT switch 5A 250Vac (resistive load).
  Relay's mechanical life 10.000.000 operations.
- **Warning:** green LED RETE : equipment on;
  red LED USCITA : pulse's output.
- **Temperature:** -20 / +60 °C.
- **Humidity:** 40 % at 40 °C (not condensing).
- **Box:** 3 modules DIN 46277, in gray autoextinguishing noryl , to be coupled on 35mm bar.
- **Size:** 52,5 x 90 x 71 mm.
- **Weight:** 200 g approx.
- **Power:** 115 / 230 Vac +/- 10 % 50 / 60 Hz.
- **Consumption:** 1,5 VA.

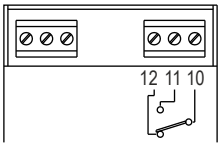
CE

Equipments compling the electromagnetic compatibility prescriptions based on the 89/366/EEC directive.
Reference norms:
- EN50081-2 : Industry environment emission norm
- EN50082-2 : Industry environment immunity norm

POWER

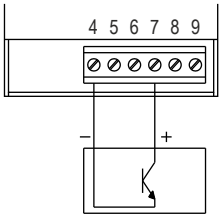


OUTPUT

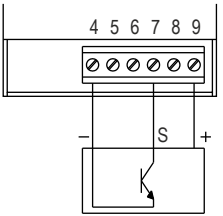


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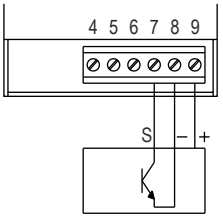
INPUTS



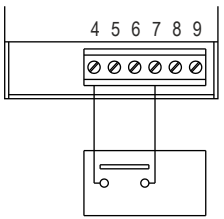
NPN (2 wires)



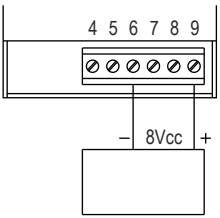
NPN (3 wires) 24Vdc



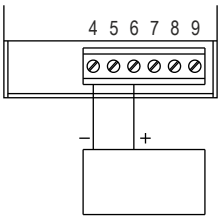
NPN (3 wires) 12Vdc



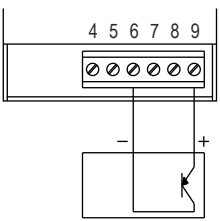
CONTACT (REED)



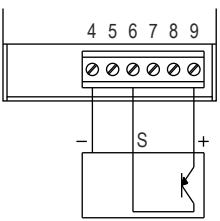
NAMUR



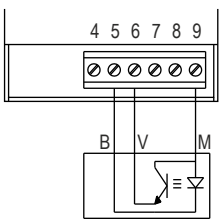
PULSES 24Vdc



PNP (2 wires)



PNP (3 wires) 24Vdc



PHOTOELECTRIC

SPECIFIC SENSORS
Flow meters Hall effect AICHI type to be used in “NPN (3 wires) 12V” connection:

- OF type	Red --> 9	White --> 7	Black --> 8
- ND type	Red --> 9	White+Blu --> 7	Black --> 8

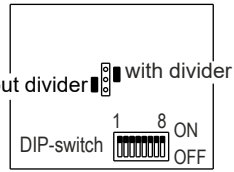
Contatori con emettitore di impulsi FOTOELETTRICO “ASTRA CONTATORI” :

Brown --> 9 Green --> 6 White --> 5

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HOW TO INSERT DIVISION'S FACTOR

To insert pulses' divider remove upper panel, replace the jumper as shown in picture and prearrange DIP-switches as indicated in table:



HOW TO PROGRAM DIVIDER (0 = DIP-switch in OFF, 1 = DIP-switch in ON)

n	1 2 3	6 7 8	n	1 2 3 4 5 6 7 8	n	3 4 5 6 7 8	n	1 2 3 4 5 6 7 8
			65	0 0 0 0 0 0 1 0	129	0 0 0 0 0 1	193	0 0 0 0 0 0 1 1
2	1 0 0	0 0 0	66	1 0 0 0 0 0 1 0	130	0 0 0 0 0 1	194	1 0 0 0 0 0 1 1
3	0 1 0	0 0 0	67	0 1 0 0 0 0 1 0	131	0 0 0 0 0 1	195	0 1 0 0 0 0 1 1
4	1 1 0	0 0 0	68	1 1 0 0 0 0 1 0	132	0 0 0 0 0 1	196	1 1 0 0 0 0 1 1
5	0 0 1	0 0 0	69	0 0 1 0 0 0 1 0	133	1 0 0 0 0 1	197	0 0 1 0 0 0 1 1
6	1 0 1	0 0 0	70	1 0 1 0 0 0 1 0	134	1 0 0 0 0 1	198	1 0 1 0 0 0 1 1
7	0 1 1	0 0 0	71	0 1 1 0 0 0 1 0	135	1 0 0 0 0 1	199	0 1 1 0 0 0 1 1
8	1 1 1	0 0 0	72	1 1 1 0 0 0 1 0	136	1 0 0 0 0 1	200	1 1 1 0 0 0 1 1
9	0 0 0	0 0 0	73	0 0 0 1 0 0 1 0	137	0 1 0 0 0 1	201	0 0 0 1 0 0 1 1
10	1 0 0	0 0 0	74	1 0 0 1 0 0 1 0	138	0 1 0 0 0 1	202	1 0 0 1 0 0 1 1
11	0 1 0	0 0 0	75	0 1 0 1 0 0 1 0	139	0 1 0 0 0 1	203	0 1 0 1 0 0 1 1
12	1 1 0	0 0 0	76	1 1 0 1 0 0 1 0	140	0 1 0 0 0 1	204	1 1 0 1 0 0 1 1
13	0 0 1	0 0 0	77	0 0 1 1 0 0 1 0	141	1 1 0 0 0 1	205	0 0 1 1 0 0 1 1
14	1 0 1	0 0 0	78	1 0 1 1 0 0 1 0	142	1 1 0 0 0 1	206	1 0 1 1 0 0 1 1
15	0 1 1	0 0 0	79	0 1 1 1 0 0 1 0	143	1 1 0 0 0 1	207	0 1 1 1 0 0 1 1
16	1 1 1	0 0 0	80	1 1 1 1 0 0 1 0	144	1 1 0 0 0 1	208	1 1 1 1 0 0 1 1
17	0 0 0	0 0 0	81	0 0 0 0 1 0 1 0	145	0 0 1 0 0 1	209	0 0 0 0 1 0 1 1
18	1 0 0	0 0 0	82	1 0 0 0 1 0 1 0	146	0 0 1 0 0 1	210	1 0 0 0 1 0 1 1
19	0 1 0	0 0 0	83	0 1 0 0 1 0 1 0	147	0 0 1 0 0 1	211	0 1 0 0 1 0 1 1
20	1 1 0	0 0 0	84	1 1 0 0 1 0 1 0	148	0 0 1 0 0 1	212	1 1 0 0 1 0 1 1
21	0 0 1	0 0 0	85	0 0 1 0 1 0 1 0	149	1 0 1 0 0 1	213	0 0 1 0 1 0 1 1
22	1 0 1	0 0 0	86	1 0 1 0 1 0 1 0	150	1 0 1 0 0 1	214	1 0 1 0 1 0 1 1
23	0 1 1	0 0 0	87	0 1 1 0 1 0 1 0	151	1 0 1 0 0 1	215	0 1 1 0 1 0 1 1
24	1 1 1	0 0 0	88	1 1 1 0 1 0 1 0	152	1 0 1 0 0 1	216	1 1 1 0 1 0 1 1
25	0 0 0	0 0 0	89	0 0 0 1 1 0 1 0	153	0 1 1 0 0 1	217	0 0 0 1 1 0 1 1
26	1 0 0	0 0 0	90	1 0 0 1 1 0 1 0	154	0 1 1 0 0 1	218	1 0 0 1 1 0 1 1
27	0 1 0	0 0 0	91	0 1 0 1 1 0 1 0	155	0 1 1 0 0 1	219	0 1 0 1 1 0 1 1
28	1 1 0	0 0 0	92	1 1 0 1 1 0 1 0	156	0 1 1 0 0 1	220	1 1 0 1 1 0 1 1
29	0 0 1	0 0 0	93	0 0 1 1 1 0 1 0	157	1 1 1 0 0 1	221	0 0 1 1 1 0 1 1
30	1 0 1	0 0 0	94	1 0 1 1 1 0 1 0	158	1 1 1 0 0 1	222	1 0 1 1 1 0 1 1
31	0 1 1	0 0 0	95	0 1 1 1 1 0 1 0	159	1 1 1 0 0 1	223	0 1 1 1 1 0 1 1

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32	1 1 1 1 1 0 0 0	96	1 1 1 1 1 0 1 0	160	1 1 1 1 1 0 0 1	224	1 1 1 1 1 0 1 1
33	0 0 0 0 0 1 0 0	97	0 0 0 0 0 1 1 0	161	0 0 0 0 0 1 0 1	225	0 0 0 0 0 1 1 1
34	1 0 0 0 0 1 0 0	98	1 0 0 0 0 1 1 0	162	1 0 0 0 0 1 0 1	226	1 0 0 0 0 1 1 1
35	0 1 0 0 0 1 0 0	99	0 1 0 0 0 1 1 0	163	0 1 0 0 0 1 0 1	227	0 1 0 0 0 1 1 1
36	1 1 0 0 0 1 0 0	100	1 1 0 0 0 1 1 0	164	1 1 0 0 0 1 0 1	228	1 1 0 0 0 1 1 1
37	0 0 1 0 0 1 0 0	101	0 0 1 0 0 1 1 0	165	0 0 1 0 0 1 0 1	229	0 0 1 0 0 1 1 1
38	1 0 1 0 0 1 0 0	102	1 0 1 0 0 1 1 0	166	1 0 1 0 0 1 0 1	230	1 0 1 0 0 1 1 1
39	0 1 1 0 0 1 0 0	103	0 1 1 0 0 1 1 0	167	0 1 1 0 0 1 0 1	231	0 1 1 0 0 1 1 1
40	1 1 1 0 0 1 0 0	104	1 1 1 0 0 1 1 0	168	1 1 1 0 0 1 0 1	232	1 1 1 0 0 1 1 1
41	0 0 0 1 0 1 0 0	105	0 0 0 1 0 1 1 0	169	0 0 0 1 0 1 0 1	233	0 0 0 1 0 1 1 1
42	1 0 0 1 0 1 0 0	106	1 0 0 1 0 1 1 0	170	1 0 0 1 0 1 0 1	234	1 0 0 1 0 1 1 1
43	0 1 0 1 0 1 0 0	107	0 1 0 1 0 1 1 0	171	0 1 0 1 0 1 0 1	235	0 1 0 1 0 1 1 1
44	1 1 0 1 0 1 0 0	108	1 1 0 1 0 1 1 0	172	1 1 0 1 0 1 0 1	236	1 1 0 1 0 1 1 1
45	0 0 1 1 0 1 0 0	109	0 0 1 1 0 1 1 0	173	0 0 1 1 0 1 0 1	237	0 0 1 1 0 1 1 1
46	1 0 1 1 0 1 0 0	110	1 0 1 1 0 1 1 0	174	1 0 1 1 0 1 0 1	238	1 0 1 1 0 1 1 1
47	0 1 1 1 0 1 0 0	111	0 1 1 1 0 1 1 0	175	0 1 1 1 0 1 0 1	239	0 1 1 1 0 1 1 1
48	1 1 1 1 0 1 0 0	112	1 1 1 1 0 1 1 0	176	1 1 1 1 0 1 0 1	240	1 1 1 1 0 1 1 1
49	0 0 0 0 1 1 0 0	113	0 0 0 0 1 1 1 0	177	0 0 0 0 1 1 0 1	241	0 0 0 0 1 1 1 1
50	1 0 0 0 1 1 0 0	114	1 0 0 0 1 1 1 0	178	1 0 0 0 1 1 0 1	242	1 0 0 0 1 1 1 1
51	0 1 0 0 1 1 0 0	115	0 1 0 0 1 1 1 0	179	0 1 0 0 1 1 0 1	243	0 1 0 0 1 1 1 1
52	1 1 0 0 1 1 0 0	116	1 1 0 0 1 1 1 0	180	1 1 0 0 1 1 0 1	244	1 1 0 0 1 1 1 1
53	0 0 1 0 1 1 0 0	117	0 0 1 0 1 1 1 0	181	0 0 1 0 1 1 0 1	245	0 0 1 0 1 1 1 1
54	1 0 1 0 1 1 0 0	118	1 0 1 0 1 1 1 0	182	1 0 1 0 1 1 0 1	246	1 0 1 0 1 1 1 1
55	0 1 1 0 1 1 0 0	119	0 1 1 0 1 1 1 0	183	0 1 1 0 1 1 0 1	247	0 1 1 0 1 1 1 1
56	1 1 1 0 1 1 0 0	120	1 1 1 0 1 1 1 0	184	1 1 1 0 1 1 0 1	248	1 1 1 0 1 1 1 1
57	0 0 0 1 1 1 0 0	121	0 0 0 1 1 1 1 0	185	0 0 0 1 1 1 0 1	249	0 0 0 1 1 1 1 1
58	1 0 0 1 1 1 0 0	122	1 0 0 1 1 1 1 0	186	1 0 0 1 1 1 0 1	250	1 0 0 1 1 1 1 1
59	0 1 0 1 1 1 0 0	123	0 1 0 1 1 1 1 0	187	0 1 0 1 1 1 0 1	251	0 1 0 1 1 1 1 1
60	1 1 0 1 1 1 0 0	124	1 1 0 1 1 1 1 0	188	1 1 0 1 1 1 0 1	252	1 1 0 1 1 1 1 1
61	0 0 1 1 1 1 0 0	125	0 0 1 1 1 1 1 0	189	0 0 1 1 1 1 0 1	253	0 0 1 1 1 1 1 1
62	1 0 1 1 1 1 0 0	126	1 0 1 1 1 1 1 0	190	1 0 1 1 1 1 0 1	254	1 0 1 1 1 1 1 1
63	0 1 1 1 1 1 0 0	127	0 1 1 1 1 1 1 0	191	0 1 1 1 1 1 0 1	255	0 1 1 1 1 1 1 1
64	1 1 1 1 1 1 0 0	128	1 1 1 1 1 1 1 0	192	1 1 1 1 1 1 0 1	256	1 1 1 1 1 1 1 1



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