

# LOGIC GATE

## TRUTH TABLE

| AND GATE |   |     |
|----------|---|-----|
|          |   |     |
| INPUT    |   | OUT |
| A        | B | C   |
| 0        | 0 | 0   |
| 0        | 1 | 0   |
| 1        | 0 | 0   |
| 1        | 1 | 1   |

• OUTPUT IS 1 WHEN ALL INPUT IS 1

| NAND GATE |   |     |
|-----------|---|-----|
|           |   |     |
| INPUT     |   | OUT |
| A         | B | C   |
| 0         | 0 | 1   |
| 0         | 1 | 1   |
| 1         | 0 | 1   |
| 1         | 1 | 0   |

• OUTPUT IS 0 WHEN ALL INPUT IS 1

| OR GATE |   |     |
|---------|---|-----|
|         |   |     |
| INPUT   |   | OUT |
| A       | B | C   |
| 0       | 0 | 0   |
| 0       | 1 | 1   |
| 1       | 0 | 1   |
| 1       | 1 | 1   |

• OUTPUT IS 1 WHEN AT LEAST INPUT IS 1

| NOR GATE |   |     |
|----------|---|-----|
|          |   |     |
| INPUT    |   | OUT |
| A        | B | C   |
| 0        | 0 | 1   |
| 0        | 1 | 0   |
| 1        | 0 | 0   |
| 1        | 1 | 0   |

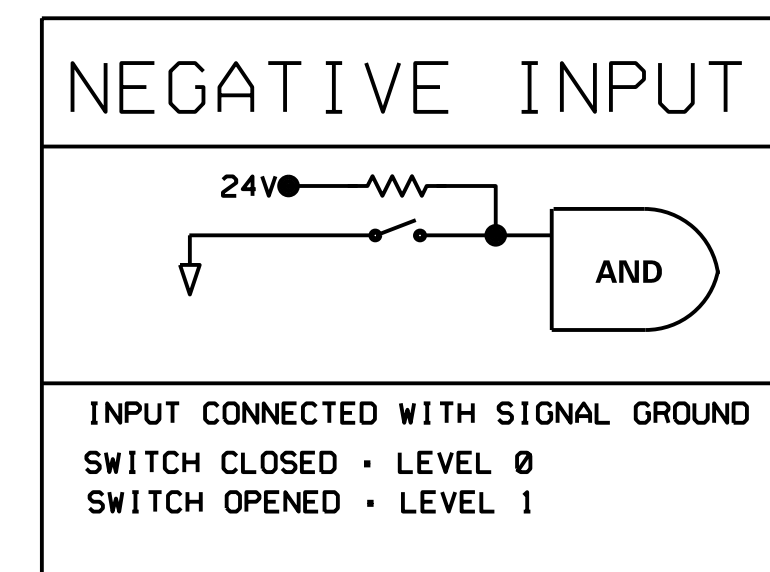
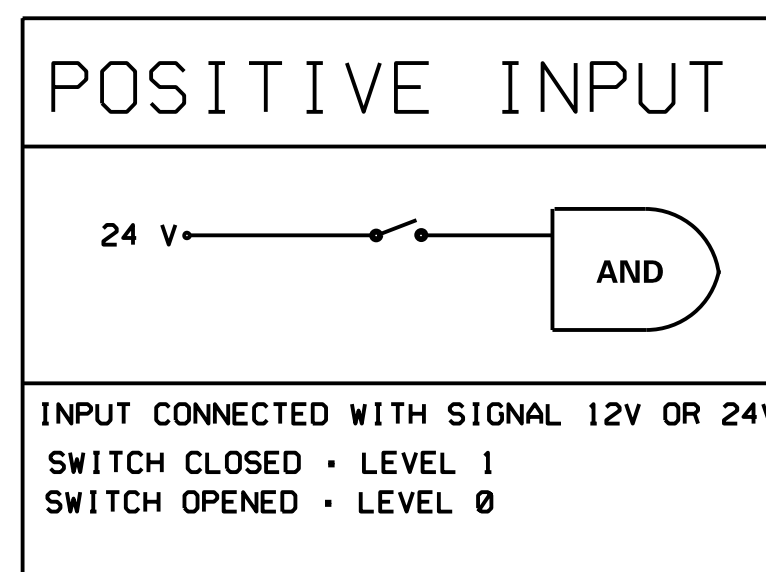
• OUTPUT IS 1 WHEN NONE INPUT IS 1

| NOT GATE |     |  |
|----------|-----|--|
|          |     |  |
| INPUT    | OUT |  |
| A        | B   |  |
| 0        | 1   |  |
| 1        | 0   |  |

• OUTPUT IS REVERSE OF INPUT

| ON-DELAY                     |  |
|------------------------------|--|
|                              |  |
| XX SECOND AFTER A=1 THAN B=1 |  |

| OFF-DELAY                    |  |
|------------------------------|--|
|                              |  |
| XX SECOND AFTER A=0 THAN B=0 |  |



INPUT OR OUTPUT LEVEL

LEVEL 1 = 12 VOLTS OR 24 VOLTS

LEVEL 0 = 0 VOLT ( TO GROUND )