



Micro-DP

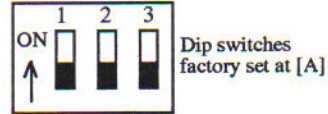
DIE PROTECTION CONTROL
INSTALLATION MANUAL

V1.2

DIP SWITCH SETTINGS

The Micro-DP can be set up in one of seven different ways depending on the type of die protection needed. The seven different choices are shown below. The Micro-DP is factory set at setting [A].

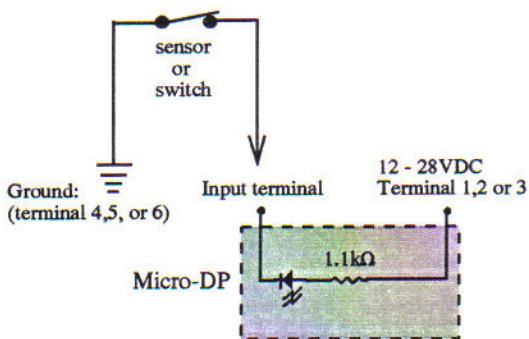
- | | | | |
|----|-----|-----|---|
| 1 | 2 | 3 | |
| A. | off | off | off — S1 momentary, cyclical |
| B. | on | off | off — S1 momentary/ N.O. when L2 is off, cyclical |
| C. | off | on | off — S1 N.O., cyclical |
| D. | on | on | off — S1 N.C., cyclical |
| E. | off | off | on — S1 N.O./ S2 N.O., static |
| F. | on | off | on — S1 N.O./ S2 N.C., static |
| G. | off | on | on — S1 N.C./ S2 N.C., static |



INPUTS

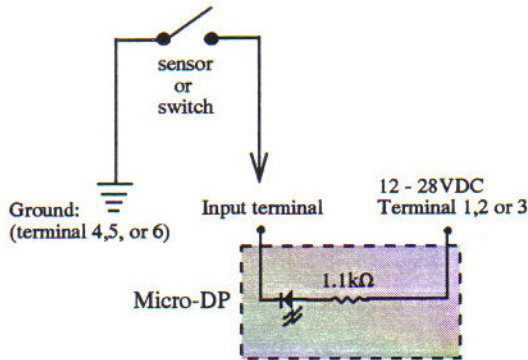
(Close)

Contact closure connects input to ground.

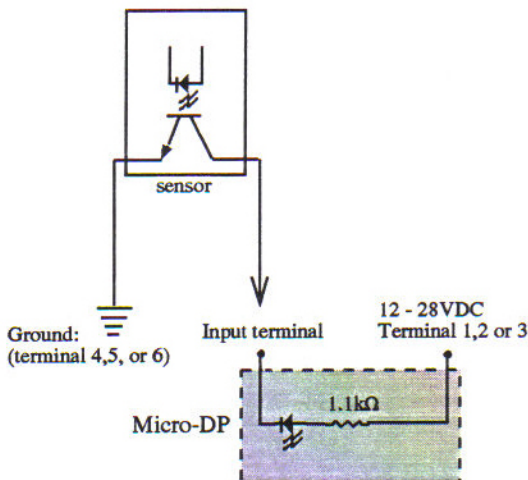


(Open)

Contact open disconnects input from ground.



Solid state sensor



The wiring configurations on this page can be used on any Micro-DP input (terminals 7, 8, 9 and 10).

Terminal#

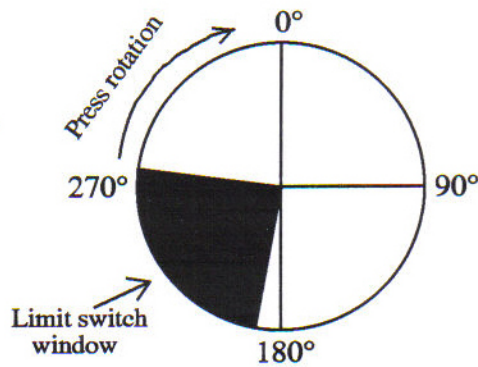
7. [S1] is a die protection input.
8. S2/L2 is a die protection input [S2] or limit switch input [L2] depending on dip switch settings.
9. Reset input Resets die protection fault.
10. Bypass input Disables die protection.

Micro-DP CONFIGURATION TYPES & EXAMPLES.

DIP switch settings A through D require an external limit switch.

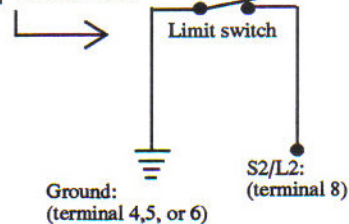
A. S1 momentary, cyclical (Dip switch setting A)

A possible use for this configuration is monitoring part eject.
In this configuration terminal 8 [L2] is used as a limit switch input.



The die protection sensor wired to terminal 7 [S1] must *close* (sense a part passing) while the limit switch is closed (shaded area). The fault output will turn off if the above is not satisfied (Press reset to turn the fault output back on).

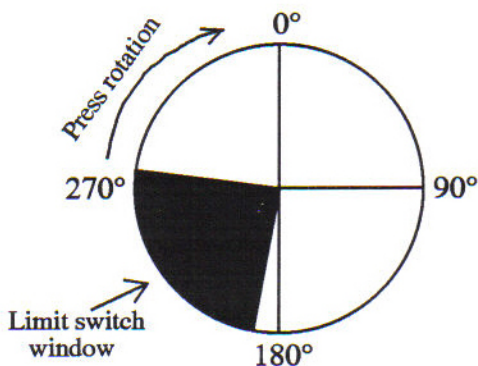
Shaded area represents when a limit switch, wired to terminal 8, [S1/L2] is closed.



NOTE: If a sensor transition from open to closed is not sensed within the limit switch window, the fault output will turn off at the end of the limit switch window. The sensor opening or closing outside limit switch window has no effect.

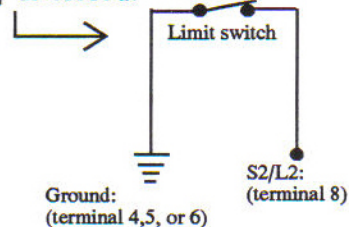
B. S1 momentary/ N.O. when L2 is off, cyclical (Dip switch setting B)

A possible use for this configuration is monitoring part eject.
In this configuration, terminal 8 [L2] is used as a limit switch input.



The die protection sensor wired to terminal 7 [S1] must *close* (sense a part) then *open* (part passed) while the limit switch is closed (shaded area). The fault output will turn off if the above is not satisfied or if sensor S1 remains closed outside the limit switch window (Press reset to turn the fault output back on).

Shaded area represents when a limit switch, wired to terminal 8, [S1/L2] is closed.

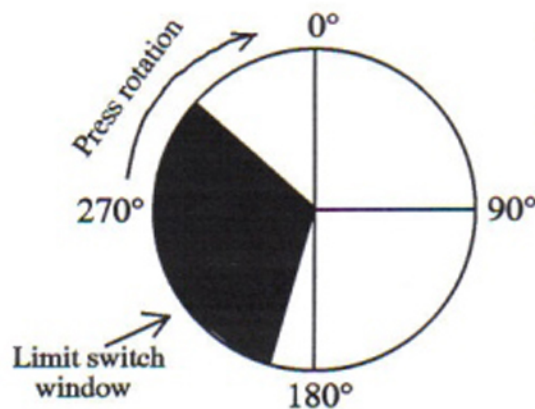


NOTE: Terminal input 7 [S1] must stay open outside the limit switch window or the fault output will turn off (reset to turn fault output on).

Configuration types cont.

C. S1 N.O., cyclical (Dip switch setting C)

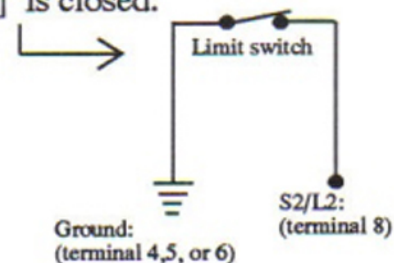
A possible use for this configuration is monitoring the pilot hole.
In this configuration terminal 8 [L2] is used as a limit switch input.



NOTE: The sensor input has no effect outside the limit switch window.

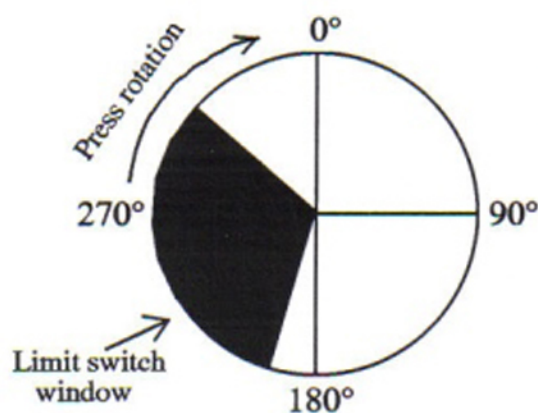
The die protection sensor wired to terminal 7 [S1] must stay *open* during the limit switch window. The fault output will turn off if the above is not satisfied (Press reset to turn the fault output on).

Shaded area represents when a limit switch, wired to terminal 8, [S1/L2] is closed.



D. S1 N.C., cyclical (Dip switch setting D)

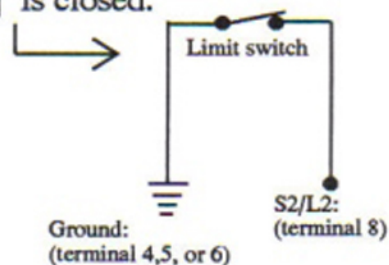
A possible use for this configuration is monitoring part transfer.
In this configuration terminal 8 [L2] is used as a limit switch input.



NOTE: The sensor input has no effect outside the limit switch window.

The die protection sensor wired to terminal 7 [S1] must stay *closed* during the limit switch window. The fault output will turn off if the above is not satisfied (Press reset to turn the fault output on).

Shaded area represents when a limit switch, wired to terminal 8, [S1/L2] is closed.



Configuration types cont.

DIP switch settings E through G do *not* require an external limit switch. The following configurations are to monitor static events such as stock buckle and end of coil. If more than two N.O. static events need to be monitored, S1 and S2 can be wired to multiple sensors (normally open only).

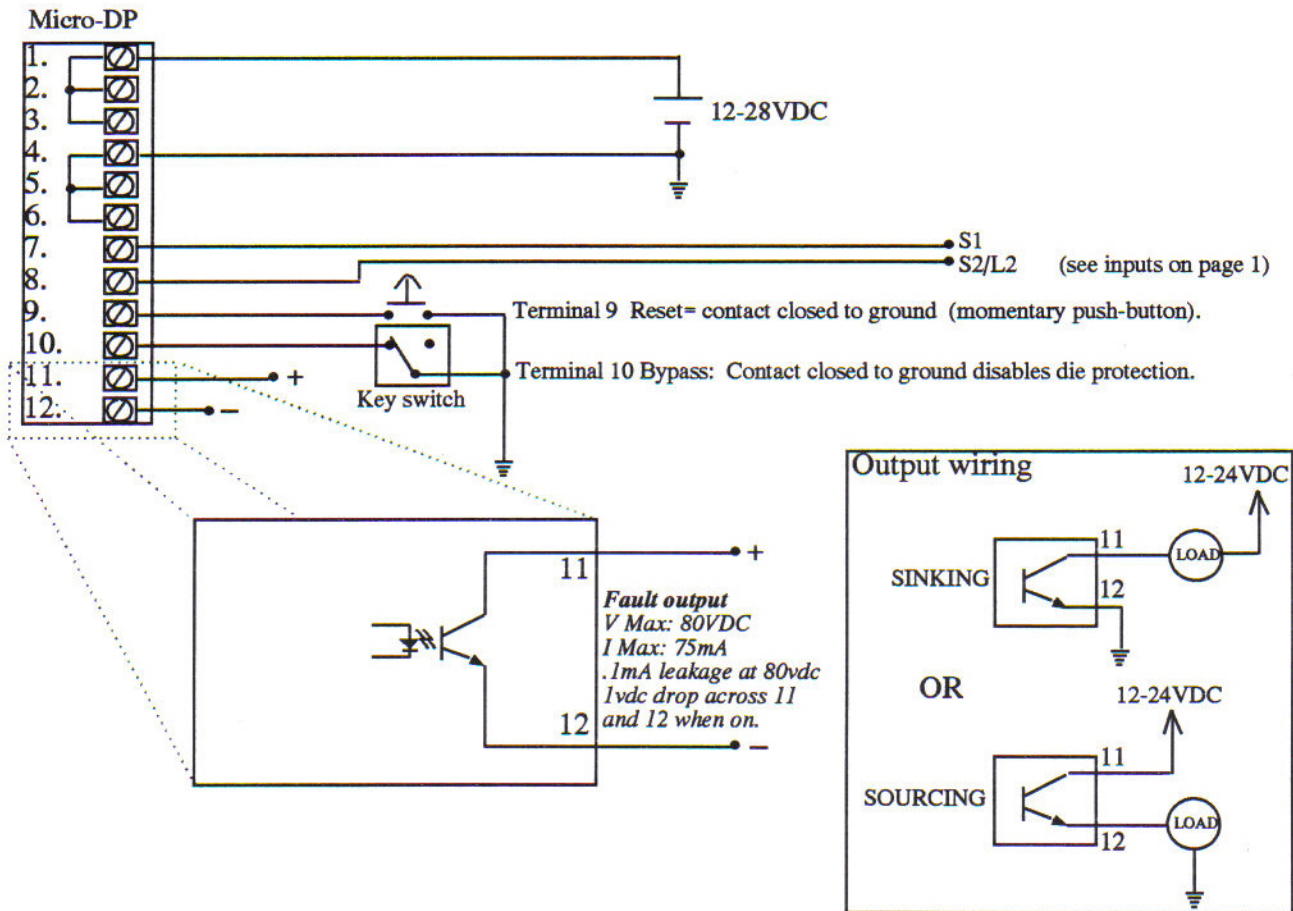
The fault output will turn off when the sensor wired to either S1 or S2 changes from:

- N.O. (normally open) to closed at any time.
- OR
- N.C. (normally closed) to open at any time.

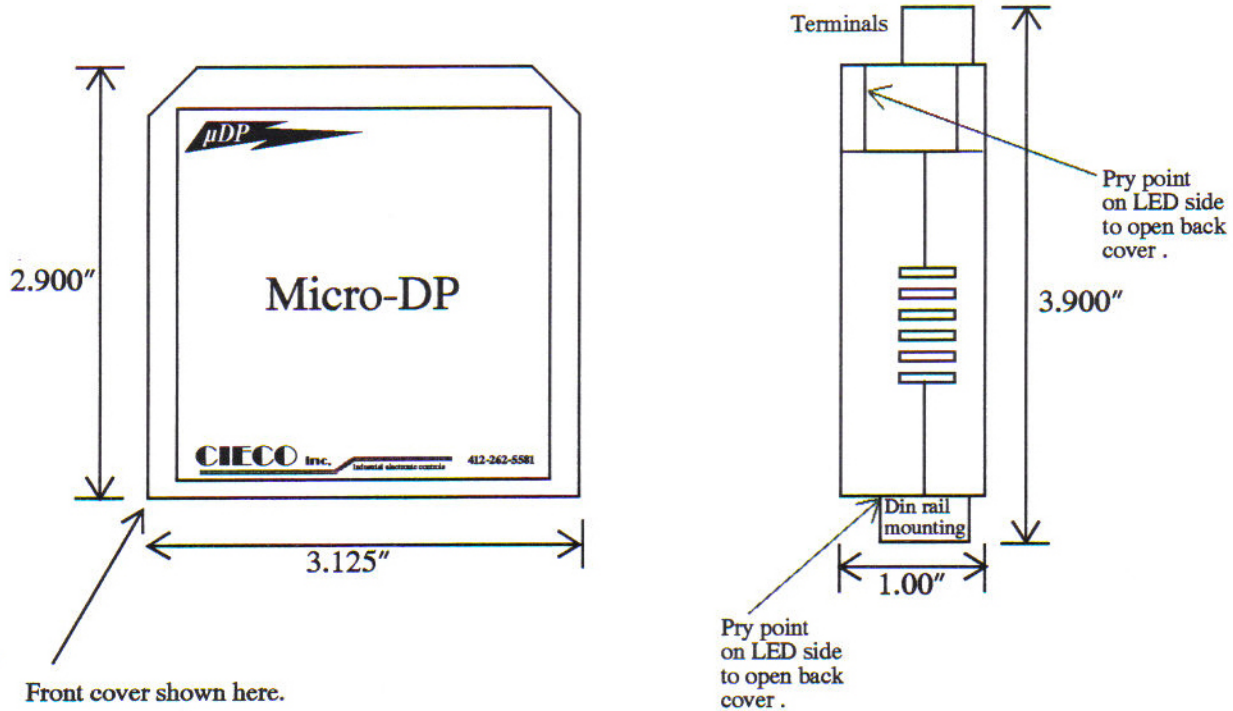
NOTE: Press reset to turn the fault output back on.

- | | | |
|--|--|---|
| <p>E. S1 N.O. / S2 N.O., static
 F. S1 N.O. / S2 N.C., static
 G. S1 N.C. / S2 N.C., static</p> | <p>(Dip switch setting E)
 (Dip switch setting F)
 (Dip switch setting G)</p> | <p><i>NOTE: If only one static input is needed, use setting E or F and leave S1 disconnected.</i></p> |
|--|--|---|

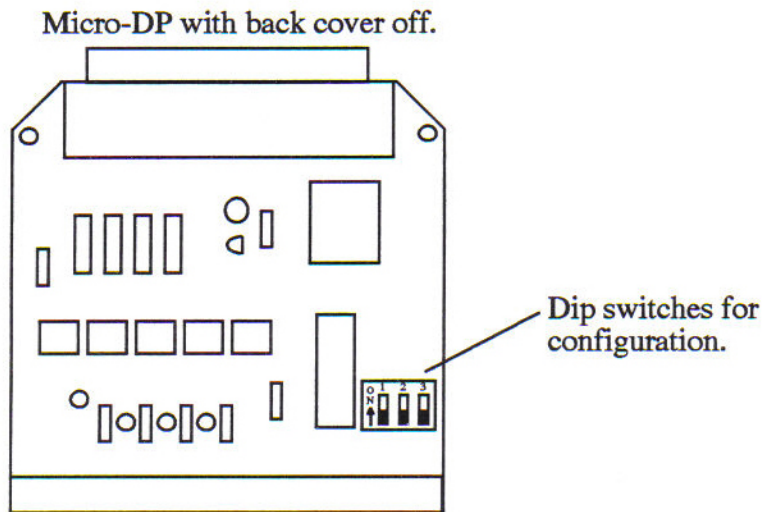
WIRING



Dimensions and cover removal for dip switch access.



Front cover shown here.



Wiring CIECO reset button.

Black leads are for the indicator light.

Wire one end to power (pins 1, 2, or 3) and the other end to pin 11.

Red leads are for the reset switch.

Wire one end of the leads to ground (pins 4, 5 or 6) and the other to pin 9.