

New Overmolding Process Introduced

A number of switch applications finds our product in less than desirable conditions and environments. There are many situations where our switches are expected to perform in the presence of vibration, moisture and dirty environments. We have seen installations where cable harnesses were putting undue strain on switch terminals ultimately requiring extraordinary means to protect and strain relieve wiring conditions.

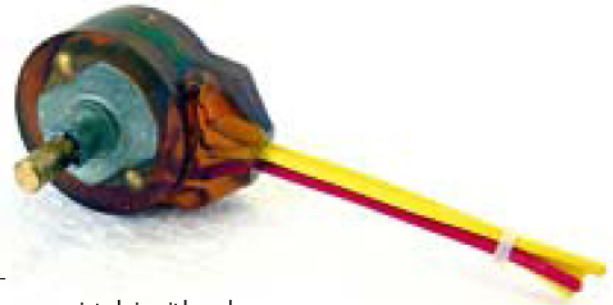
For sometime now Electroswitch has been investigating and refining the use of low-pressure overmolding technology to encapsulate and protect the terminal wiring harness and the switch body itself from the installation environment. In July Electroswitch introduced and began shipping low-pressure overmolded C4 product to a major account.

Low-pressure overmolding is a process existing somewhere between injection molding and potting. This process is used to encapsulate the switch and its terminations with a durable and sturdy polyamide thermoplastic material. Though not as durable, the hardness of the material resembles that of an automobile tire.

The pictures show standard C4 switches that have been overmolded. Prior to over-

molding, the switch wiring harness is attached to the wiring terminals. The harnessed switch is placed in a mold, wires trained and the switch is subjected to a low-pressure injection molding process encapsulating the switch and wiring. The overmolding process yields an overall strenghtening of the switch unit for better resistance to wear, stress, and abuse.

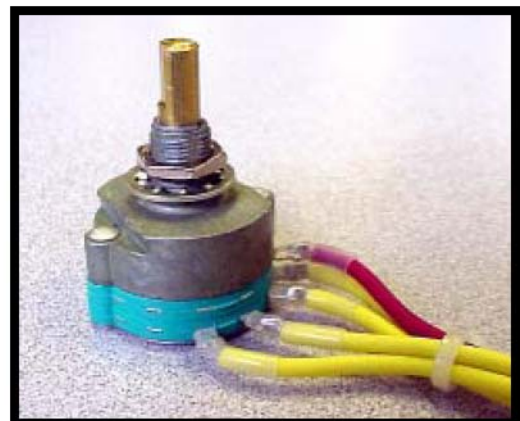
Application of this process is found in high vibration environments or installations where the wiring interface may be in jeopardy of damage. The overmolded switch has proved effective in moisture, splash and water resistant testing in our lab at elevated and reduced temperatures. This process is regularly seen in automotive and industrial sensors, on printed circuit boards, electronic modules, electrical connectors, strain relief application, and now on our switches. Contact our Sales department for more information.



Overmolded C4 switch, black material.



Rear view, C4 switch with amber overmolding used for evaluation of overmolding quality.



C4 switch not yet overmolded.