

**“BULLET” PROXIMITY SWITCH &
“MINUTEMAN” NO-FLOW SHUTDOWN
FOR ALL DIVIDER BLOCK SYSTEMS**



**ELIMINATE COMPRESSOR SHUTDOWNS DUE TO
COLD WEATHER & CONTINUED FAILURE OF
INDUSTRY STANDARD NO-FLOW DEVICES**

Field Sensitive
“BULLET”
Proximity Switch



E79070
CLASS I, DIV I, GR. ABCD



“2 YEAR

“MinuteMan” No-Flow Shutdown



Control Panel Din-Rail Mount
24 VOLT DC Powered



EXP - CLASS I, DIV I, GR. ABCD

Powered By 24 vdc From Control Panel

BULLET PROXIMITY SWITCH

- ◆ No Springs to Break
- ◆ S.S. Construction
- ◆ Operating Temp -4°C- +80°C
- ◆ Pressure Rating 4000 PSI
- ◆ 2 Year Factory Warranty
- ◆ Fully Encapsulated

MINUTEMAN NO-FLOW SHUTDOWN

- ◆ Normally Open - N.O.
- ◆ Normally Closed - N.C.
- ◆ LED Proximity Pulse Indicator
- ◆ Operating Temp -4°C to +80°C
- ◆ 2 Year Factory Warranty
- ◆ Fully Encapsulated

PATTON DIVIDER BLOCK SYSTEMS

Pro-Tecting “Your” Compressor

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Midland Texas 79701

**BUILT TANK TOUGH
2-Year Factory Warranty**

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THE PROBLEM:

No-flow shutdowns in cold weather or when the compressor is operating at high discharge pressures, are directly attributed to the current design of the oil filled, spring loaded proximity switch used with no-flow shutdowns such as the DNFT, ProFlo & industry standard proximity switches.

THE CAUSE: Why does the oil filled, spring load magnet assembly cause phantom shutdowns?

When the divider block piston cycles, the piston pushes the magnet of the proximity switch into the housing and the oil behind the magnet is forced back into the divider block with each piston cycle. When the outside temperature drops to a specific range, the oil in the housing becomes very thick & creates higher pressure in the system. The cold oil trapped in the magnet housing causes the divider block to stall, then slams the magnet back into the housing, which causes the spring to break. This action causes the no-flow device to go into alarm state, shutting down the compressor. The same scenario can also take place when the compressor is operating at high discharge pressures and utilizes high viscosity oils (ISO 460 – 680).

THE SOLUTION: PATTON FIELD SENSITIVE "BULLET" PROXIMITY SWITCH

OPERATION: When fluid flow in the divider block pushes the piston within magnetic range of the end of the "BULLET" Proximity Switch, the internal magnet in the switch moves towards the divider block piston and closes the internal dry contacts, sending a switch closure to the PLC, No-Flow or "MinuteMan" shutdown. The "BULLET" Proximity Switch utilizes magnetic technology and does not have springs in the housing.

PROXIMITY SWITCH INSTALLATION:

1. Install switch on any available divider block section.
2. Remove end plug (A) from divider block.
3. Ensure 0-ring (B) is in place on switch housing (C).

SPECIFICATIONS:
 Single Pole Single Throw (SPST N/O)
 4 Amp/120VAC, 3 Amp/24VDC

MinuteMan WIRING DIAGRAM

**NORMALLY OPEN
(with compressor running)
(Closed-Fault)**

**NORMALLY CLOSED
(with compressor running)
(Open-Fault)**

Maximum Ratings
 Supply Voltage:..... pins 2 & 7- 28 Vdc
 Contact Switching:.. 5 Amps@ 28 Vdc
 Operating Temperature:..-4°C to +80°C