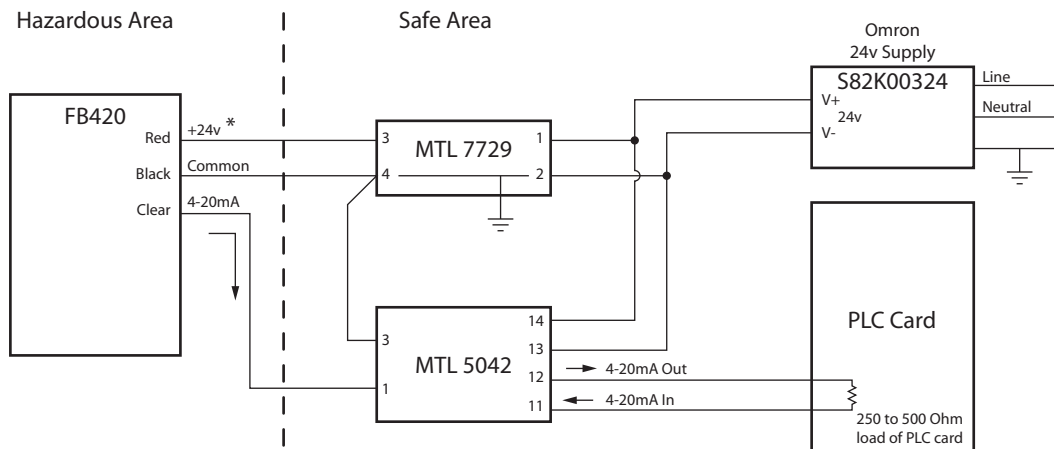


Connection Diagram for FB420 using I. S. barriers



- The MTL 7729 barrier transmits the +24v power
- The MTL 5042 barrier isolates and re-transmits the 4-20mA signal
- The S82k00324 Omron Power supply must be used because the MTL 5042 is an active barrier and consumes power internally.

The MTL 7729 barrier is ESI part number 597-000103, list price is \$160

The MTL 5042 barrier is ESI part number 598-000200, list price is \$390

The Omron 24v power supply is ESI part number 598-000100, list price is \$95

* Note:

When the Omron power supply is outputting 24V, the FB420 input voltage is about 19.5V when outputting 4mA, and the FB420 input voltage is about 14.5V when outputting 20mA.

This voltage drop is due to the in series resistance losses of the MTL7729.

Even though the FB420 is spec'd to run at +24V +/- 10%, if the FB420's relay is not used (i.e. disabled) then the FB420 can run with an input as low as 14.5V without hurting it. However the performance specs to within +/- 0.70% of actual feedback speed may not necessarily hold over the specified operating temperature range of -30°C to +60°C.

Also the FB420 must have it's user Var04 set to "0000" to disable the relay.