



TECHNICAL INFORMATION

TITLE: USING FPL ZERO-SEQUENCE SENSORS WITH THE MPU-16A

GENERAL:

Toroidal (Type T) zero-sequence sensors manufactured by Federal Pioneer Ltd. can be used instead of the EFCT-1. Table I lists compatible FPL sensors and window sizes. These sensors can be used on resistance-grounded systems and on solidly-grounded systems where the maximum earth-fault current is less than 50 kA.

If the earth-fault current can exceed 200 A, a voltage-clamping device must be used as shown in Figure 1. A 35-A bridge rectifier is recommended for these applications. Note that the "+" and "-" terminals must be shorted.

MPU-16A (up to and including firmware revision 5):

When a FPL sensor is used, earth-leakage readings and set-point values must be multiplied by 10 to obtain actual values. The resulting set-point range is 0.2 A to 50 A in 0.2-A steps.

MPU-16A (subsequent to revision 6):

When using a FPL sensor, the earth-fault CT Primary Rating should be set to 50 A in MODE F. This will provide correct earth-leakage and pre-trip readings in MODE d. The MODE 5 set-point range is 1% to 100% in 1% increments, which corresponds to 0.5 A to 50 A in 0.5-A steps.

DATE	REV	AUTHOR	DOCUMENT LOCATION	PAGE
1996-Sep-30	2	MV	http://www.startco.ca/library/techinfo/section4/4.2.pdf	1 of 2

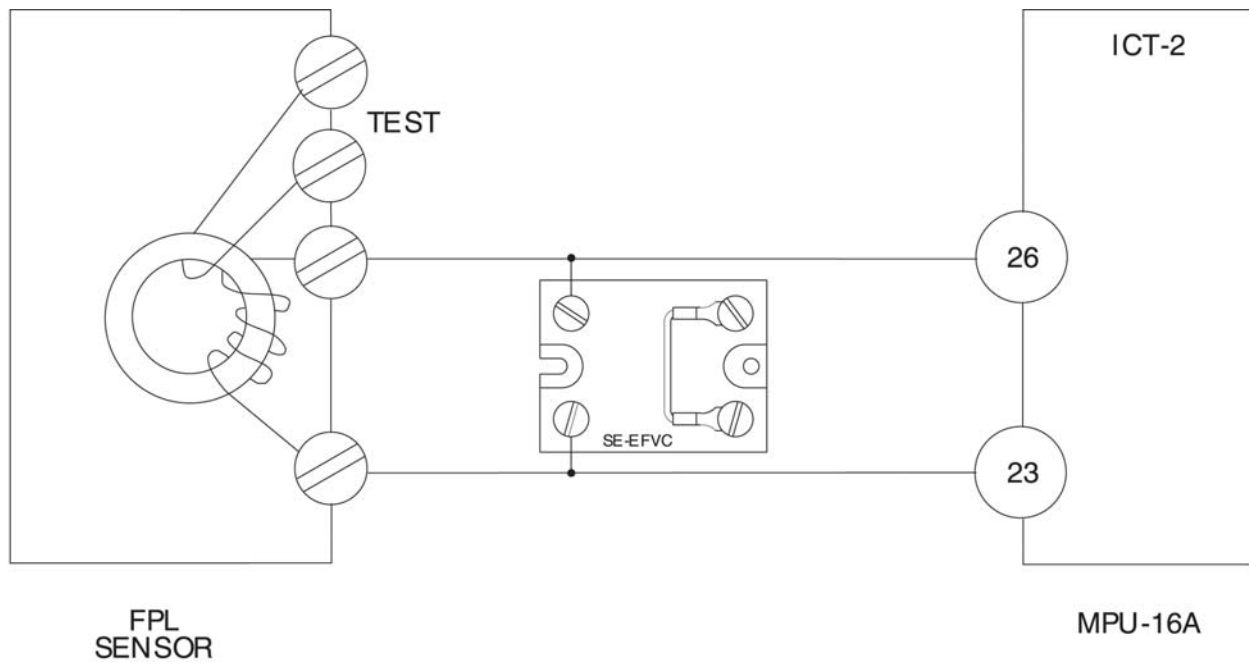


TECHNICAL INFORMATION

TITLE: USING FPL ZERO-SEQUENCE SENSORS WITH THE MPU-16A

FPL CATALOG NUMBER	WINDOW SIZE	
	INCHES	MM
T2A	1-7/8	48
T3A	2-3/4	70
T6A/T6A-S	5-3/4	146
T9A	8-3/4	222

TABLE I



VOLTAGE CLAMP

FIGURE 1

DATE	REV	AUTHOR	DOCUMENT LOCATION	PAGE
1996-Sep-30	2	MV	http://www.startco.ca/library/techinfo/section4/4.2.pdf	2 of 2