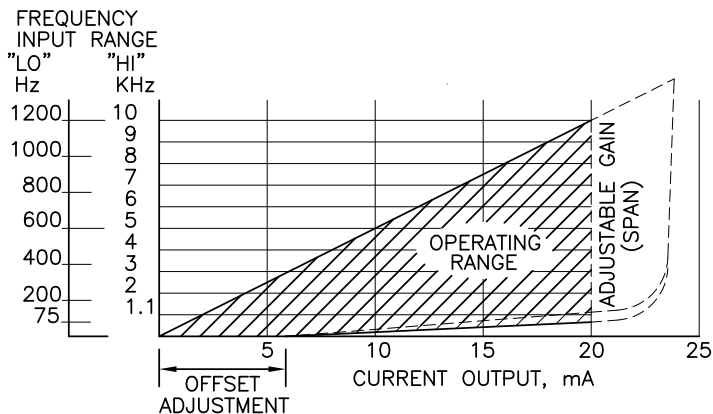
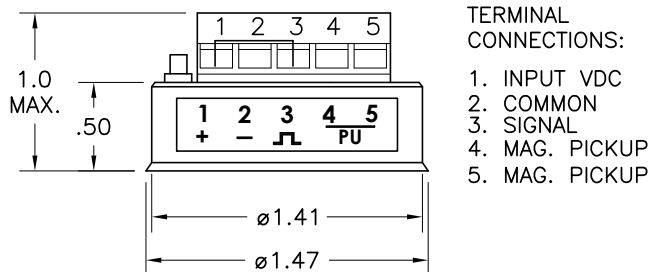
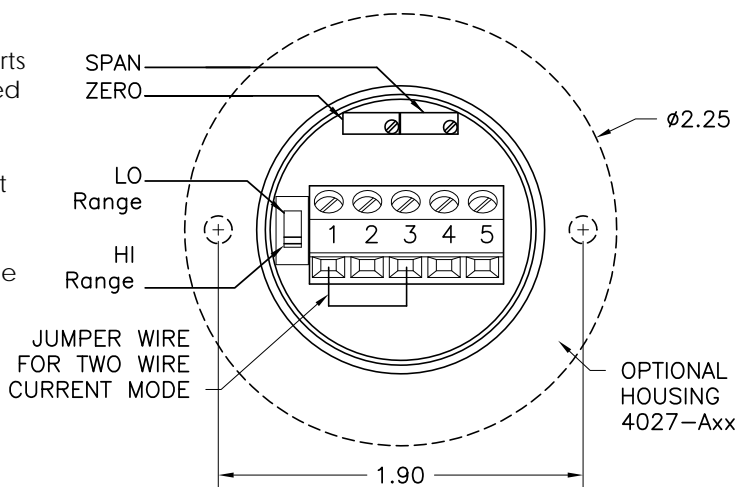


### PRODUCT DESCRIPTION

The FTC converter receives frequency input and converts to a proportional 4-20mA output. It has been configured to fit a compact 1/2 and 3/4" NPT "ELBY" explosion proof enclosure. The frequency range is field selectable to fit most applications. ZERO and SPAN adjustments make it easy to calibrate to almost any measurement range, with little interaction between the adjustments. The power supply input is designed to cover the entire range of commonly available DC power, with no selecting or adjusting.

### SPECIFICATIONS

- Supply Voltage Vs:** 9 - 36 VDC @ ≤ 4mA
- Output Signal:** 4 - 20 mA
- Input Protection:** 100 VAC, reversed leads
- Output Protection:** Short to + VDC, Common or Signal Out continuous
- Frequency Input Range:** Fmin: 0 Hz yields 4 mA signal  
 Fmax: 10 kHz yields 20 mA signal (two adjustable ranges, see P/N table below)  
 [up to ~18 kHz @ 1% linearity with > 50mV signal]
- Input Sensitivity:** Standard: 50 mVpp  
 High: 12 mVpp or 5 mVpp
- Linearity:** 0.5% Max., 0.15% typ.
- Output Settling Time:** Full scale change to 95% of final value 100msec to 350 msec.
- Output Ripple and Noise:** 2 mA max. p-p (1% of Full Scale)  
 .02 mA typical (0.01% of Full Scale)
- Temperature Coefficient:** 0.13%/ °C for 25° to 40°C
- Temp. Range:** -40° to + 105°C (-40° to + 225°F)
- ZERO/SPAN Adjustment:** < 1% interaction
- 3 Wire Output Version:** < 20 mA Range
- Min. Signal Current:** 0.07 mA (only when wired via Current Mode 2)
- Max. Signal Current:** 24.1 mA (Full scale Min. Cal., Zero Cal. set to 4 mA)
- Wiring Options:** See page 2
- Compliance:** CE EN55011, EN50022-2  
 4027-11, -12, -50 ONLY



### PART NUMBERS

Frequency to Current Converters:

P/N	Input Sensitivity	Fmax adjustment LO Freq. Range	Fmax adjustment HI Freq. Range
4027-00:	5 mVpp	75-1100 Hz	1100 Hz to 10 kHz
4027-10:	12 mVpp	75-1100 Hz	1100 Hz to 10 kHz
4027-11:	12 mVpp	50-550 Hz	None
4027-12:	12 mVpp	75-2000 Hz	2000 Hz to 20 kHz
4027-50:	50 mVpp	75-1100 Hz	1100 Hz to 10 kHz

4027-Axx: Optional housing will fit GUAL-16 or similar

Frequency to Voltage Converters: Refer to 4026 or 4028

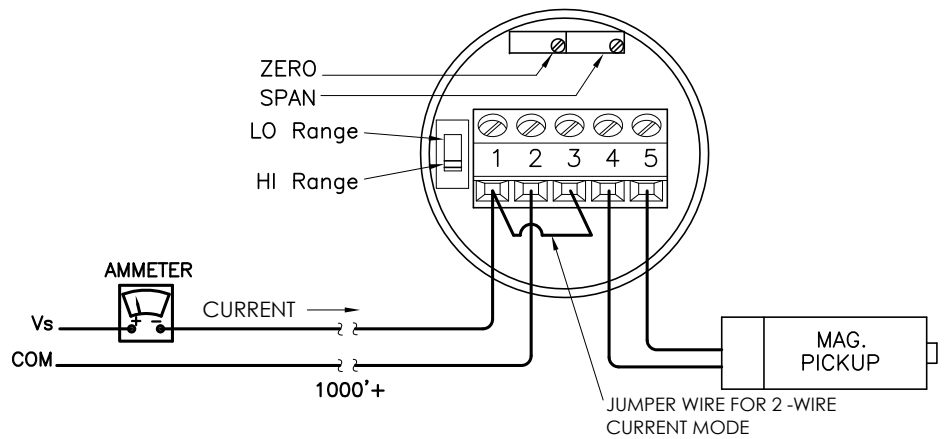
Explosion Proof Junction Box:

90012-001 ELBY (1/2-14 NPT)

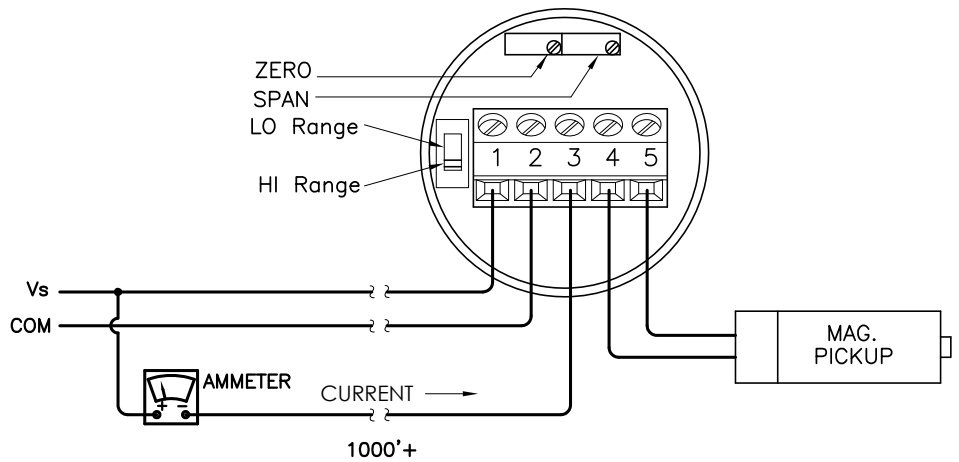
Other Junction Boxes & Adapters: Refer to Bulletin 4001

# 4027 FTC CONVERTER: WIRING OPTIONS

## CURRENT MODE 1 (2 wire)



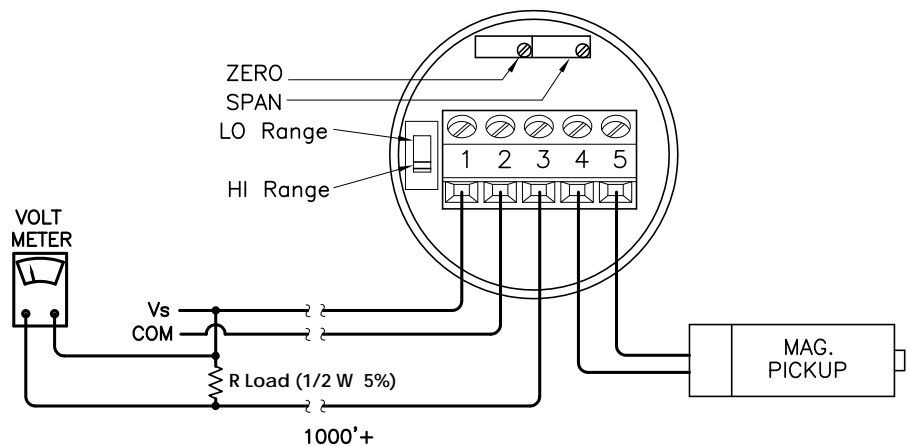
## CURRENT MODE 2 (3 wire)



## VOLTAGE MODE 1 (3 wire) FOR USE WITH LONG WIRE RUNS RESISTANT TO LINE LOSSES & EMI

$$R \text{ Load} \leq \frac{V_s - 9}{.02A}$$

$V_s \therefore 12 \text{ V} \leq 150 \Omega$   
 $24 \text{ V} \leq 750 \Omega$



## DIGITAL PICKUP MODE (WITH NPN SIGNAL) 3 wire voltage or current mode

NOTE: USE ONLY WITH...  
 4027-00  
 4027-10  
 4027-50

(FOR PNP OR OTHER SIGNAL TYPES,  
 PLEASE CONTACT SPECTEC)

ATTENTION:  
 OPEN COLLECTOR OUTPUT SIGNAL TYPES  
 REQUIRE A 2.2 kΩ RESISTOR TO BE ADDED  
 BETWEEN TERMINALS 1 & 4

