TrigasFI GmbH

Measurement and Calibration

4016
DIGITAL ANALOG CONVERTER
RF TYPE
PA-10/6

PRODUCT DESCRIPTION

The PA 10 D/A converter has been configured to fit a compact "Y3" explosion proof enclosure. Input and output configurations are field selectable to fit most applications.
ZERO and SPAN adjustments make it easy to calibrate to almost any measurement range, with no interaction between the adjustments. All inputs and outputs are fully protected against shorts to supply or ground, and reversed supply leads to 50 Vdc max.

The PA 10 D/A converter can be used with either 2-wire or 3-wire power supply configuration; refer to diagrams on back of this page.

SPECIFICATIONS

Vs, Supply Voltage: 9.0 VDC Min. 0 – 5 Vout, FTV
11.0 VDC Min. 0 – 10 Vout, FTV
38.0 VDC Max.

Input Signal Current: 5.0 mA
Input Carrier Current: 15.0 mA

Output Signal & Carrier Current: Std. 3-wire 20.0 mA
2-wire 4.0 mA*

*With local power supply at converter for carrier supply voltage.

Frequency Input Range F HI: max full scale 5 kHz
min full scale 1100 Hz

LO: max full scale 1100 Hz
min full scale 115 Hz

Input Sensitivity: Standard 50 mVpp

Output Protection: Short to +VDC
or Common Continuous

Output Settling Time: Full scale change
to 95% of final value 0.18 sec

Output Ripple and Noise: 5 mVpp, <2 mV rms, 0.5% of FS

Temperature Coefficient: 25 to 40° C, 0.13% / °C,
13 mV / °C on 10 V range

Operating Temperature Range: -20° to +160 °F (-40° to +70° C)

ZERO/SPAN adjustment Interaction < 1%

CE-Compliance: EN55011, EN50022-2

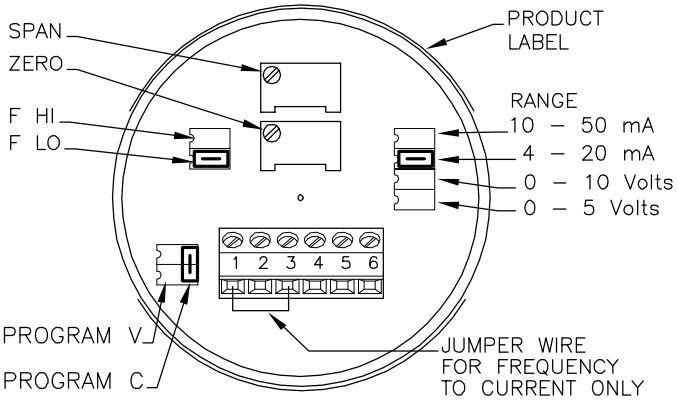
TERMINAL CONNECTIONS

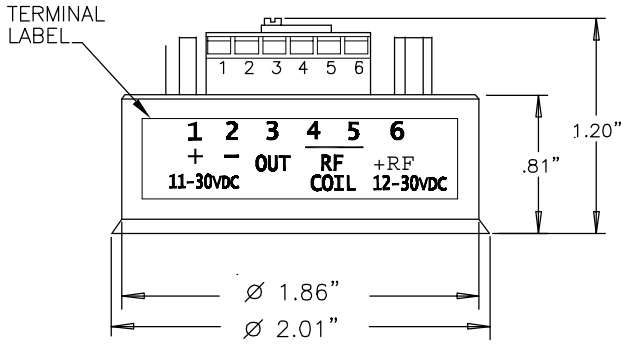
1. Converter Supply Voltage
2. Common
3. Signal Out
4. Balanced Carrier Pick-up Input
5. Balanced Carrier Pick-up Input
6. Carrier Supply Voltage

PART NUMBERS

4016-20	RF4, HS Type	.33 mH pickup
4016-50	RF10, HS Type	1.00 mH pickup
Explosion proof junction boxes:	90010-03	Y3
	90012-03	ELBY 100

For junction boxes & adapters see spec. 4001





VOLTAGE MEASUREMENT SPECIFICATIONS		
	0 - 5 V Range	0 - 10 V Range
Vout min, (Freq. input = zero Hz), at full scale max freq. cal.	5.1 mV	10.5 mV
Vout min at full scale min freq. cal.	21 mV	43 mV
Vout max at Vsupply = +24 Vdc	6.8 V	13.7 V
Minimum Load Resistance	50 Ω 1/2 W	100 Ω, 1 W
Maximum Load Resistance	Open	Open

CURRENT MEASUREMENT SPECIFICATIONS		
3 WIRE OUTPUT VERSION	4 - 20 mA Range	10 - 50 mA Range
Minimum Output Current	0.07 mA	0.19 mA
Maximum Output Current, (Full Scale Min. Cal., Zero Cal. set to 4 mA and 10 mA)	24.1 mA	61.2 mA
Load Resistance <(+V – 6 V) / Full Scale output:		
+V=12 V	<300 Ω	<120 Ω
+V=24 V	<900 Ω	<360 Ω
2 WIRE VERSION	3.85 mA	3.95 mA
Minimum Output Current	0	0

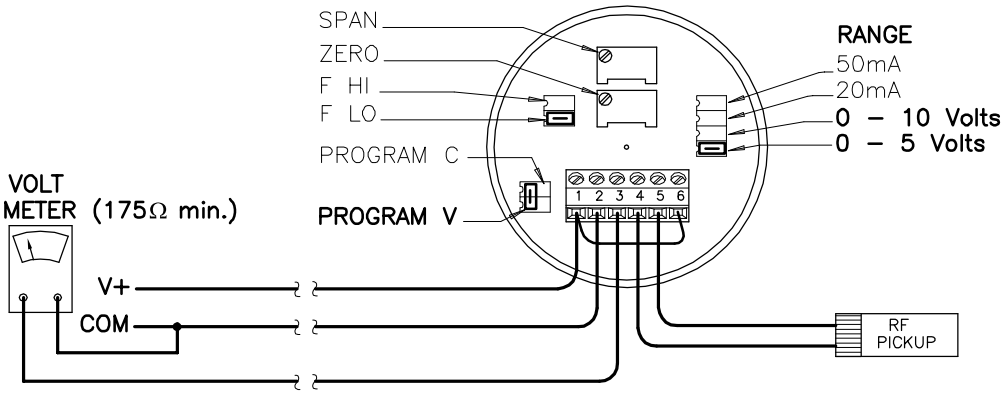
4016, PA-10/6, RF TYPE: WIRING OPTIONS

VOLTAGE MEASUREMENT 1

RANGE: 0 - 5 V or 0 - 10 V

PROGRAM: V

FREQ.: F HI
F LO



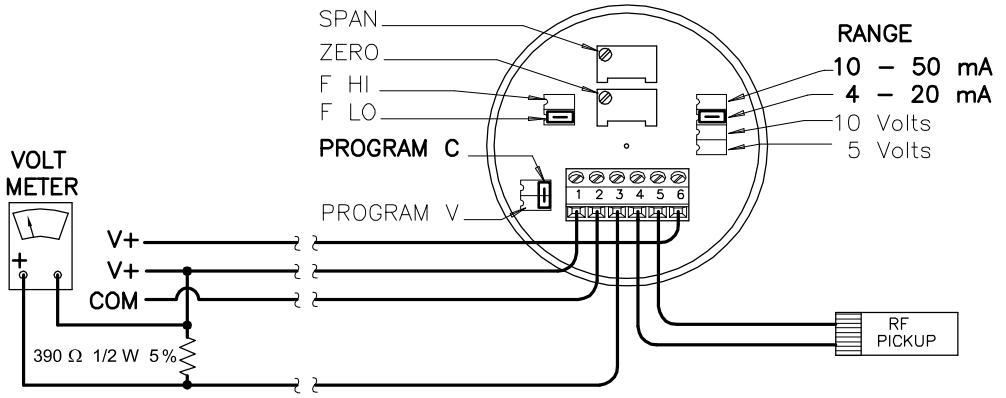
VOLTAGE MEASUREMENT 2

FOR USE WITH LONG WIRE RUNS
RESISTANT TO LINE LOSSES & EMI

RANGE: 50 mA for 0 to 10 V
20 mA for 0 to 5 V

PROGRAM: C

FREQ.: F HI
F LO

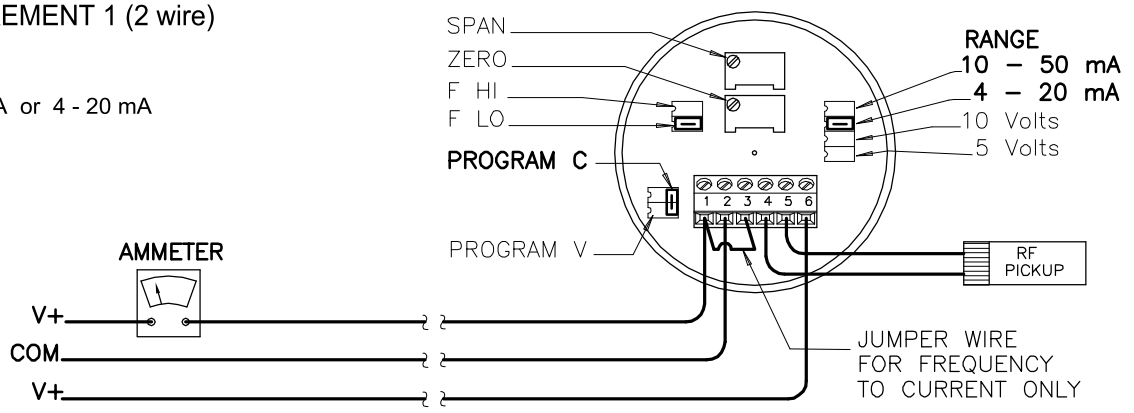


CURRENT MEASUREMENT 1 (2 wire)

RANGE: 10 - 50 mA or 4 - 20 mA

PROGRAM: C

FREQ.: F HI
F LO



CURRENT MEASUREMENT 2

RANGE: 0 - 50 mA or 0 - 20 mA

PROGRAM: C

FREQ.: F HI
F LO