PRODUCT DESCRIPTION
The PA 20 D/A converter is designed to convert a frequency based signal to a linear voltage or current. Input and output configurations are field selectable to fit most applications. See Page 2 for available output signals and wiring options.

ZERO and SPAN adjustments make it easy to calibrate to almost any measurement range, with little interaction between the adjustments. The converter will accept frequency input from any mag pickup or digital source.

SPECIFICATIONS
Vs, Supply Voltage: 11 to 38 VDC  
(9 VDC Min. for FTV 0-5 Vout option)  
Input Protection: 50 VAC, reversed leads  
Output Protection: Short to + VDC, Common or Signal out Continuous  
Frequency Input Range:  
F LO: 75 Hz to 1100 Hz  
F HI: 1100 Hz to 10 kHz  
Input Sensitivity: Mag: See Variants  
          Digital: CMOS/TTL (28Vpp Max)  
Output Setting Time: Full scale change to 95% of final value 180mS.  
Output Ripple & Noise: 5 mVp-p, <2 mVrms, 5% of FS  
Temperature Coefficient: 0.13% / °C, On 10 V range (25°- 40°C)  
Operating Temp. Range: -40 to 70°C (-40 to 160° F)  
ZERO/SPAN Adjustment Interaction: <1%  
Terminal Connections & Wiring Options: See Page Two  
CE-Compliance: EN55011, EN50082-2

PART NUMBERS
DROPP- IN TYPE for use with Y3 Enclosure  
4026-05:  5 mVpp [Mag] & Digital Input  
4026-12: 12 mVpp [Mag] & Digital Input  
4026-30: 30 mVpp [Mag] & Digital Input  
4026-50: 50 mVpp [Mag] & Digital Input  
4026-100: 100 mVpp [Mag] & Digital Input  
MOUNTABLE TYPE for use with GAUL16 Encl. and Panel Mount  
4026-Axx: Same options as above (Add 'A' to part number)

Explosion Proof: 90010-003: Y3, CL1, DIV1, Enclosure  
Junction Boxes: 90012-003: ELBY 100, CL1, DIV1, Enclosure  
90013-016: GAUL16, CL1, DIV1, Enclosure  
For Enclosure & Adapters see spec. 4001

VOLTAGE MEASUREMENT SPECIFICATIONS
<table>
<thead>
<tr>
<th>RANGE</th>
<th>0 - 5 V</th>
<th>0 - 10 V</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vout min, (Freq. input = 0 Hz) at full scale max freq, cal.</td>
<td>5.1 mV</td>
<td>10.5 mV</td>
</tr>
<tr>
<td>Vout min at full scale min freq, cal.</td>
<td>21 mV</td>
<td>43 mV</td>
</tr>
<tr>
<td>Vout max at Vaupply = 12VDC/24VDC</td>
<td>6.8 V</td>
<td>11.3V / 13.7V</td>
</tr>
<tr>
<td>Minimum Load Resistance</td>
<td>50 Ω, 1/2W</td>
<td>100 Ω, 1 W</td>
</tr>
</tbody>
</table>

CURRENT MEASUREMENT SPECIFICATIONS
<table>
<thead>
<tr>
<th>RANGE</th>
<th>4-20 mA</th>
<th>10-50 mA</th>
</tr>
</thead>
<tbody>
<tr>
<td>Minimum Signal Current (sinking)</td>
<td>0.07 mA</td>
<td>0.19 mA</td>
</tr>
<tr>
<td>Maximum Signal Current (sinking)</td>
<td>24.1 mA</td>
<td>61.2 mA</td>
</tr>
<tr>
<td>Load Resistance = ( \frac{&lt;Vs&gt;}{6V} ) if Vs = 24 V</td>
<td>&lt;300Ω</td>
<td>&lt;120Ω</td>
</tr>
<tr>
<td>Full Scale Output</td>
<td>&lt;90Ω</td>
<td>&lt;360Ω</td>
</tr>
</tbody>
</table>

* NOTE: Black Box indicates position switch high side in relation to the images above.
A) VOLTAGE MEASUREMENT 1 (3 wire)

**SWITCH POSITIONS:**
- PROGRAM: VOLTAGE MODE
- RANGE: 0-5 V or 0-10 V

**WIRE POSITIONS:**
- 1 - V+
- 2 - COM
- 3 - METER POS.
- 4 - MAG.
- 5 - MAG.
- 6 - NC

B) VOLTAGE MEASUREMENT 2 (3 wire)

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

**SWITCH POSITIONS:**
- PROGRAM: CURRENT MODE
- RANGE: 20 mA for 0-5 V
- 50 mA for 0-10 V

**WIRE POSITIONS:**
- 1 - V+
- 2 - COM
- 3 - METER POS.
- 4 - MAG.
- 5 - MAG.
- 6 - NC

C) CURRENT MEASUREMENT 1 (2 wire)

**SWITCH POSITIONS:**
- PROGRAM: CURRENT MODE
- RANGE: 4-20 mA or 10-50 mA

**WIRE POSITIONS:**
- 1 - METER NEG. & JUMPER
- 2 - COM
- 3 - JUMPER FROM #1
- 4 - MAG.
- 5 - MAG.
- 6 - NC

D) CURRENT MEASUREMENT 2 (3 wire)

**SWITCH POSITIONS:**
- PROGRAM: CURRENT MODE
- RANGE: 4-20 mA or 0-20 mA*, 10-50 mA or 0-50 mA*  
  *Set By ZERO Adj.

**WIRE POSITIONS:**
- 1 - V+ & METER POS.
- 2 - COM
- 3 - METER NEG.
- 4 - MAG.
- 5 - MAG.
- 6 - NC

E) CURRENT MEASUREMENT W/ DIGITAL INPUT

**SWITCH POSITIONS:**
- PROGRAM: CURRENT MODE
- RANGE: 4-20 mA or 0-20 mA*, 10-50 mA or 0-50 mA*  
  *Set By ZERO Adj.
- SIGNAL IN: DIGITAL

**WIRE POSITIONS:**
- 1 - V+, METER POS., & PICKUP POS.
- 2 - COM & PICKUP COM
- 3 - METER NEG.
- 4 - NC
- 5 - NC
- 6 - PICKUP SIGNAL