

- · High Accuracy Digital Compensation
- High Speed Digital Output (RS-485 or Ethernet)
- No External Heating or Cooling Needed
- Wide Temperature Range
  -65°F to +255°F (-55°C to +125°C)

The KMPS-2-64 is a 64 position pressure scanner with high accuracy digital output over either an RS-485 or Ethernet bus. There is an internal heater which keeps the internal temperature above freezing to avoid internal icing. An optional motor allows for digital control over the purge mechanism. The KMPS also features auto-zero capabilities.

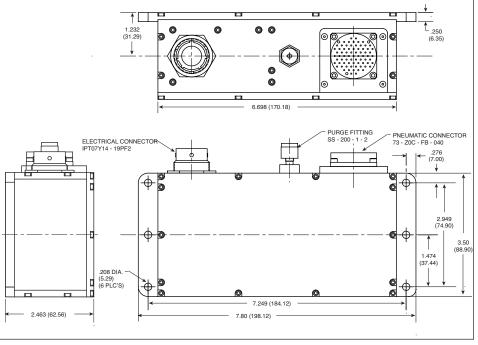
The KMPS-2-64 is ideally suited for the flight test market. The Ethernet version features IEEE-1588 timing for precise correlation between multiple devices on the network. The pressure sensors are vibration and moisture resistant leading to extreme reliability. Modules with 16 sensors each are individually replaceable by the user. This allows for different pressure ranges and modes (differential and absolute) in the same scanner.

For additional details see manual (KM 8001).

| PIN DESIGNATIONS |             |             |               |             |             |  |  |  |  |  |  |  |
|------------------|-------------|-------------|---------------|-------------|-------------|--|--|--|--|--|--|--|
|                  | AIR PURGE & | NO PURGE    | MOTOR PURGE   |             |             |  |  |  |  |  |  |  |
|                  | ETHERNET    | RS485       |               | ETHERNET    | RS485       |  |  |  |  |  |  |  |
| PIN              | FUNCTION    | FUNCTION    | PIN           | FUNCTION    | FUNCTION    |  |  |  |  |  |  |  |
| Α                | VIN +       | VIN +       | Α             | VIN +       | VIN +       |  |  |  |  |  |  |  |
| В                | VIN -       | VIN -       | В             | VIN -       | VIN -       |  |  |  |  |  |  |  |
| С                | RX +        | RS485A      | RS485A C RX + |             | RS485A      |  |  |  |  |  |  |  |
| D                | RX -        | RS485B      | RS485B D RX - |             | RS485B      |  |  |  |  |  |  |  |
| Е                | TX +        | SPARE       | Е             | TX +        | SPARE       |  |  |  |  |  |  |  |
| F                | TX -        | SPARE       | F             | TX -        | SPARE       |  |  |  |  |  |  |  |
| G                | TRIGGER     | TRIGGER     | G             | PURGE ACT   | PURGE ACT   |  |  |  |  |  |  |  |
| Н                | TRIGGER REF | TRIGGER REF | Н             | PURGE REF   | PURGE REF   |  |  |  |  |  |  |  |
| J                | SPARE       | SPARE       | J             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| K                | SPARE       | SPARE       | K             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| L                | SPARE       | SPARE       | L             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| M                | SPARE       | SPARE       | M             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| N                | SPARE       | SPARE       | N             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| Р                | SPARE       | SPARE       | Р             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| R                | SPARE       | SPARE       | R             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| S                | SPARE       | SPARE       | S             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| Т                | SPARE       | SPARE       | Т             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| U                | SPARE       | SPARE       | U             | SPARE       | SPARE       |  |  |  |  |  |  |  |
| V                | CASE GROUND | CASE GROUND | ٧             | CASE GROUND | CASE GROUND |  |  |  |  |  |  |  |

- Auto Zero
- · Integral Purge
- IEEE-1588 Timing
- Silicon on Silicon Integrated Sensor VIS®
- Patented Design





|                              | Pressure Ranges               | KMPS-2-64  |      |      |     |                  |     |     |         |  |  |
|------------------------------|-------------------------------|--|------|------|-----|------------------|-----|-----|---------|--|--|
|                              |                               | 0.07   | 0.14 | 0.35 | 0.7 | 1.7              | 3.5 | 7   | 17 BAR  |  |  |
| INPUT                        |                               | 1  | 2    | 5    | 10  | 25               | 50  | 100 | 250 PSI |  |  |
|                              | Operational Modes             | Gage   |      |      |     | Gage or Absolute |     |     |         |  |  |
|                              | Proof Pressure                | 1.5 Times Rated Pressure to 300 PSI (21 Bar) Maximum                               |      |      |     |                  |     |     |         |  |  |
|                              | Burst Pressure                | 2 Times Rated Pressure to 300 PSI (21 Bar) Maximum                                 |      |      |     |                  |     |     |         |  |  |
|                              | Rated Electrical Excitation   | 20 to 32 VDC   |      |      |     |                  |     |     |         |  |  |
|                              | Maximum Current               | 300 mA + 2A For Heater   |      |      |     |                  |     |     |         |  |  |
|                              | Insulation Resistance         | 100 Megohms @ 50 VDC   |      |      |     |                  |     |     |         |  |  |
| ENVIRONMENTAL DIGITAL OUTPUT | Interface                     | RS-485 or Ethernet   |      |      |     |                  |     |     |         |  |  |
|                              | Resolution (Pressure)         | 24 Bits or 0.0015% F.S.  |      |      |     |                  |     |     |         |  |  |
|                              | Total Error Band (Pressure)   | ± 0.2% Typ.<br>(± 0.5% Max.) ± 0.1% Typ. (± 0.25% Max.)                            |      |      |     |                  |     |     |         |  |  |
|                              | Conversion Rate               | 275 Samples/Sec/Channel  |      |      |     |                  |     |     |         |  |  |
|                              | Operating Temperature Range   | -65°F to 255°F (-55°C to 125°C)  |      |      |     |                  |     |     |         |  |  |
|                              | Compensated Temperature Range | -65°F to 255°F (-55°C to 125°C)  |      |      |     |                  |     |     |         |  |  |
|                              | Linear Vibration              | 20g Peak, Sine 10 to 2000 Hz   |      |      |     |                  |     |     |         |  |  |
| EN                           | Reference Pressure            | 0-30 PSIA  |      |      |     |                  |     |     |         |  |  |
| _                            | Electrical Connection         | 19 Pin Circular Bayonette Connector (IPT07Y14-19PF2)                               |      |      |     |                  |     |     |         |  |  |
| CA                           | Weight                        | 4 lbs. (1.8 kg)  |      |      |     |                  |     |     |         |  |  |
| PHYSICAL                     | Sensing Principle             | Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon |      |      |     |                  |     |     |         |  |  |
| 늅                            | Pressure Port                 | Pneumatic Quick Disconnect (73-Z0C-FB-040)   |      |      |     |                  |     |     |         |  |  |

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (O) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2014 Kulite Semiconductor Products, Inc. All Rights Reserved. Kulite miniature pressure transducers are intended for use in test and research and development programs and are not necessarily designed to be used in production applications. For products designed to be used in production programs, please consult the factory.