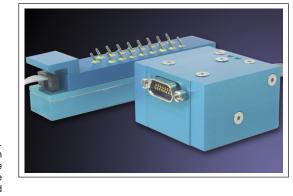# kulite®

PRESSURE SCANNER

KMPS-4-64-XX-Y SERIES

- High Accuracy Digital Compensation
- High Speed Digital Output (RS-485 or Ethernet)
- Wide Temperature Range -65°F to +255°F (-55°C to +125°C)
- Silicon on Silicon Integrated Sensor **VIS**®
- IEEE-1588 Timing
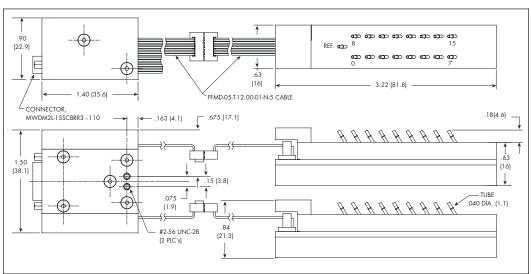- Remote Modules
- Patented Design

The KMPS-4-64 is a 64 position pressure scanner with both high accuracy digital and analog outputs. The KMPS-4 electronics module can support up to four KPM-1-16 pressure modules each of which can be a different pressure range and mode. This allows the modules to be placed remotely from the electronics module for ease of installation in tight locations. The RS-485 digital output allows multiple scanners to be read over a single data bus. The Ethernet digital output allows integration into standard networks using TCP or UDP.

The KMPS-4-64 has a trigger input for low latency triggered acquisition. Due to the wide temperature capability it does not require heating or cooling in wind tunnel, flight test and other harsh environments. The pressure transducers are vibration and moisture resistant leading to extreme reliability.

For additional details see manual (KM 8000).

PIN	FUNCTION
1	+ VIN
2	- VIN
3	+ RS485A/RX
4	- RS485A/RX
5	+ TX (ETHERNET ONLY)
6	- TX (ETHERNET ONLY)
7	ANALOG OUT
8	MULTIPLEX 1
9	MULTIPLEX 2
10	MULTIPLEX 3
11	MULTIPLEX 4
12	MULTIPLEX 5
13	MULTIPLEX 6
14	TRIGGER
15	3.3 VDC

		0.07	0.14	0.35	0.7	1.7	3.5	7	17 BAR
INPUT	Pressure Ranges	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	8 to 32 VDC							
	Maximum Current	300 mA							
	Insulation Resistance	100 Megohms @ 50 VDC							
ANALOG OUTPUT	Output Impedance	< 100 Ohms							
	Full Scale Output (Analog)	0.5 to 4.5 V							
	Resolution	16 Bit							
	Bandwidth (-3dB)	DC to 1000 Hz							
	Total Error Band	± 0.5% FSO (Typ.)							
DIGITAL OUTPUT	Interface	RS-485 or Ethernet							
	Resolution (Pressure)	24 Bits or 0.0015% F.S.							
	Total Error Band (Pressure)	± 0.2% Typ. (± 0.5% Max.)		± 0.1% Typ. (± 0.25% Max.)					
	Conversion Rate	275 Samples/Sec/Channel							
ENVIRONMENTAL	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	10g Peak, Sine 10 to 2000 Hz							
	Reference Pressure	0-30 PSIA							
PHYSICAL	Electrical Connection	15 Pin Micro D-Sub							
	Weight	.55 lbs (250 Grams)							
	Sensing Principle	Fully Active Four Arm Wheatstone Bridge Dielectrically Isolated Silicon on Silicon							
	Pressure Port	.040 or .063 Bulged Tubulations (60° angle or straight)							

Note: Custom pressure ranges, accuracies and mechanical configurations available. Dimensions are in inches. Dimensions in parenthesis are in millimeters. All dimensions nominal. (F) Continuous development and refinement of our products may result in specification changes without notice. Copyright © 2015 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.