



.....Motorized, Programmable Phase Shifters

QMP

Characteristics

- ◆ Offered over 18-110 GHz
- ◆ High Accuracy
- ◆ Digital Readout
- ◆ Low Insertion Loss
- ◆ Manual and Computer Controlled
- ◆ Full Waveguide Bands



Product Description

QuinStar Technology offers Motorized Rotary Vane Phase Shifters in all waveguide bands from 18.0 to 110 GHz. The QMP series is a motorized, computer controllable version of QuinStar's standard Direct Reading Phase Shifter and provides a 0 to 360° phase shift range with 0.5 degree resolution.

The phase shifter is controlled by a precision stepping motor and all control and driver electronics are packaged within the phase shifter housing. Microprocessor-based electronics translates the desired phase shifter setting into the required motor position and provides the proper drive

signals to the motor. Motor speed is variable to ensure accurate positioning and smooth operation. The Phase Shifter can be controlled remotely through an IEEE-488 interface or manually with a front panel control. A three-digit readout on the front panel displays the setting. The product requires a 24-volt, 500 mA power supply.

The QMP series motorized direct reading phase shifters are used in automated RF measurement systems. They are frequently used in RF substitution type test arrangements for precise measurement of phase characteristics including bridge circuits and phase networks.

Specifications

Waveguide Band	Frequency Range (GHz)	Insertion Loss dB typical	VSWR	Average Power
K	18.0-26.5	1.0	1.30	1.0
Ka	26.5-40.0	1.0	1.15	1.0
Q	33.0-50.0	1.0	1.15	1.0
U	40.0-60.0	1.1	1.15	1.0
V	50.0-75.0	1.2	1.20	0.8
E	60.0-90.0	1.4	1.20	0.7
W	75.0-110.0	1.5	1.20	0.6

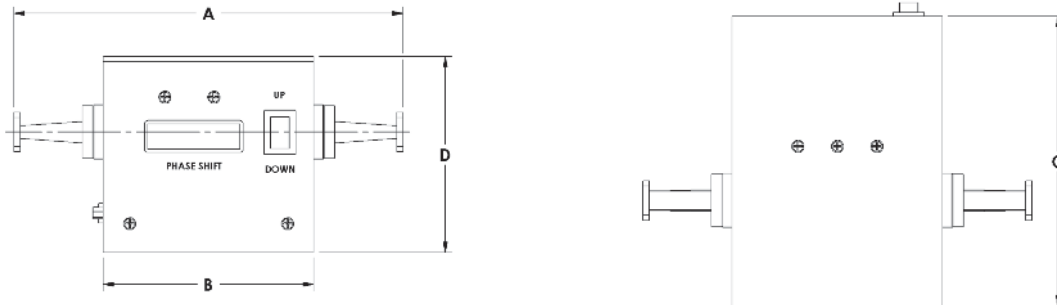
Resolution (degree)	Repeatability	Accuracy	Speed (sec) 0-360°
0.5	0.5	4 deg.	5 sec.



.....Motorized, Programmable Phase Shifters

QMP

Outline Drawings/Mechanical Specifications



WAVEGUIDE BAND	OUTLINE DIMENSIONS, inches/mm			
	A	B	C	D
K	8.48/215.4	4.00/101.6	5.50/139.7	3.73/94.7
KA	8.53/216.7	4.00/101.6	5.50/139.7	3.73/94.7
Q	6.85/174.0	4.00/101.6	5.50/139.7	3.73/94.7
U	6.0/152.4	4.00/101.6	5.50/139.7	3.73/94.7
V	5.78/146.8	4.00/101.6	5.50/139.7	3.73/94.7
E	5.78/146.8	4.00/101.6	5.50/139.7	3.73/94.7
W	5.78/146.8	4.00/101.6	5.50/139.7	3.73/94.7

Ordering Information

