

Technical Note No. 103

OPTIMIZED SIGNAL CHANNEL COUNT FOR SLIP RINGS USING SPINNING AMPLIFIERS

	10 CHANNEL SLIP RING					THERMOCOUPLES
	350 Ω BRIDGE		120 Ω BRIDGE			
	5 V EXCITATION	10 V EXCITATION	5 V EXCITATION	10 V EXCITATION		
+ 15 V	1	1	1	1	1	
- 15 V	1	1	1	1	1	
POWER COMMON	1	1	1	1	1	
CALIBRATION CONTROL	1	1	1	1	N/A	
SIGNAL COMMON	1	1	1	1	1	
SIGNAL CHANNELS	5	5	4	4	6	

	20 CHANNEL SLIP RING					THERMOCOUPLES
	350 Ω BRIDGE		120 Ω BRIDGE			
	5 V EXCITATION	10 V EXCITATION	5 V EXCITATION	10 V EXCITATION		
+ 15 V	2	2	2	3	1	
- 15 V	2	2	2	3	1	
POWER COMMON	1	1	1	1	1	
CALIBRATION CONTROL	1	1	1	1	N/A	
SIGNAL COMMON	1	1	1	1	1	
SIGNAL CHANNELS	13	13	13	11	16	

	36 CHANNEL SLIP RING					THERMOCOUPLES
	350 Ω BRIDGE		120 Ω BRIDGE			
	5 V EXCITATION	10 V EXCITATION	5 V EXCITATION	10 V EXCITATION		
+ 15 V	4	5	6	8	1	
- 15 V	4	5	6	8	1	
POWER COMMON	2	2	2	2	1	
CALIBRATION CONTROL	1	1	1	1	N/A	
SIGNAL COMMON	1	1	1	1	1	
SIGNAL CHANNELS	22	21	20	16	32	