

Spider8, Spider8-30 Spider8-01

PC-Measurement Electronics Special features

- Simultaneous measurement acquisition
- High sampling rate at 16-bit resolution
- Selectable digital filters
- Calibrated complete measuringchain
- Easy to operate and configure
- No hardware changes inside the PC required
- Up to 80 channels can be cascaded
- EMC-tested metal housing
- Completion resistors with shunt calibration (Spider8-30)





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Specifications



Diagrammatic view of measurement signal processing in a Spider8



Diagrammatic view of measurement signal processing in a Spider8-30

Specifications



Diagrammatic view of measurement signal processing in a Spider8-01/30



Diagrammatic view of measurement signal processing in a Spider8-01/55

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Specifications

Series			Spider8 / SR55	Spider8-30 / SR30	Spider8-01 / SR01
Accuracy class			0.1 0.2		0.2
Digital resolution in the case of final value of the measuring range		Digit	±25000		
Measured value buffer		Meas	< 20000		
Transfer rate:					
serial		Baud	600, 1200, 2	2400, 4800, 9600 , 19200, 38	400, 57600
parallel ¹⁾	Nibble mode	Meas/s		> 6500	
	8Bit mode	Meas/s		> 19000	
	Byte mode (two-way)	Meas/s		> 24000	
	EPP mode	Meas/s		> 76000	
USB	view data sheet USB	-	-		
Sampling rate (21 levels)	per channel	1/s	19600		
Digital filter					
Aperiodic		Hz	0.1		
Average value		Hz	Sa	mpling rate/8 to sampling rate	e/4
Butterworth (4th order)		Hz	0.11200	0.1200	0.11200
Bessel (4th order)		Hz	0.11200	0.1200	0.11200
Number of amplifiers	-		4/1	4/1	4/1
Transducers that can be connected			Strain gauge and ind. full bridge/half bridge	S/G full bridge / half bridge/ quarter bridge	-
			DC voltage sources		
			DC power		DC power sources
				-	Resistors
					Thermocouples
Channel 0 ²⁾ and 1 ²⁾ in addition			Pulse/frequency		
			2-phase sensor	-	
Transducer current supp	ly	mA		-	0.25
Transducer excitation voltage		V _{rms}		2.5	-
Carrier frequency (sine / symmetric)		Hz	4800	600	-
Transducer resistance		Ω	1101100		-
Completion resistors		Ω	-	120, 350, 700	-
Shunt calibration signal		mV/V	-	1	-
Transducer cable length	up to	m	50	200	50
Dimensions (W x H x D) I	nousing	mm	330 x 75 x 270		
Measuring ranges					
Strain gauge / Ind. trans	ducer	mV/V	$\pm 3; \pm 12; \pm 125; \pm 500$		
Voltage		V	±10		$\pm 0.1; \pm 1; \pm 10$
max. differential input voltage		V	± 15		±15
max. permissible common-mode voltage (differential voltage input-ground)		V	±10		50
input resistance		MΩ	0.25		1
Current		mA	- ±20; ±2		$\pm 20; \pm 200$
Resistance		Ω		-	400; 4000
Frequency ²⁾		kHz	0.1; 1; 10; 100; 1000	-	-
Period length ²⁾		s	0.01; 0.1; 1; 10; 100	-	-
Counter ²⁾		d	25,000; 2,500,000 ³⁾	-	-

Depends on the computing power and hardware of the PC.
Only for the *Spider8* basic device (channels 0 and 1)
Transmission format: counter/100

Series		Spider8 / SR55	Spider8-30 / SR30	Spider8-01/SR01
Linearity variation in relation to nominal value	%	0.05		
Influence of temperature per 10K in nominal tem- perature range in relation to				
zero point (in relation to nominal value)		0.1		0.2
sensitivity (in relation to nominal value)		0.1		0.2
Nominal temperature range		-10+50		
Operating temperature range		-20+60		
Storage temperature range		-20+70		
Supply voltage		11.815		
Power consumption		4 / 0.25		6.2 / 0.8
Dimensions (W x H x D) Housing		330 x 75 x 270		
Weight	kg	2.75 / 0.05 2.75 / 0.05		2.75 / 0.05
Connections				
Transducer		DB-15 socket	DB-15 socket	SUBCON 5-pin socket
Digital I/O		DB-25 socket		
RS-232 computer interface		DB-9 socket		
Printer port		DB-25 socket		
PC interface		DB-25 socket		

Specifications mains power unit (ASCOM company)

Туре		D0012367 78-084-1300	
Device input			
Input voltage U _i	V	110250	
Frequency range	Hz	50 60	
Mains current at U _i min, P _a max	А	approx. 0.4	
Mains current at U _i 230V, P _a nominal	Α	approx. 0.2	
Peak value of start-up current	Α	< 30	
Total efficiency factor at U _i 230V, P _a nominal	%	approx. 82	
EMV requirements		The following standards are satisfied: DIN EN61326	
Dynamic mains undervoltages with any notch depth and any notch duration can lead to the switching off of the device, but not to its destruction.			
Device output			
Nominal voltage	V	12	
set to adjustment accuracy	V	12 ±1%	
Accuracy	%	±5	
Ripple (100Hz)		< 100mV pp	
Amplitude		< 100mV pp (Ripple and Noise)	
Rated current	A	1.6	
Use of current limiter	A	approx. 3.7; U _i = 110V approx. 6.1; U _i = 230V By current limiting, the output is statically and dynamically short-circuit-proof.	
Accuracy	%	±5	
Operating and access options			
Mains connection		Connection to the public low voltage mains network is effected using a mains cable with a cold device plug.	
Device connection		The output voltage is made available by means of a 4-pin mini-DIN socket. Pin assignment: Pin 2 and 4: 13.1V; Pin 1 and 3: Ground	
Switching on		The device has a single pole power switch	
Fuses		The mains input has 2-pole protection using soldered 1.25A/slow-blow fuses.	
Dimensions (H x W x L)	mm	56 x 68 x 116	
Protection class		1 according to EN 60950	
Degree of protection		IP20	
Type of cooling (according to DIN 41571)		KS	
Noise suppression		according to EN 55011, Class B	
Stray current	mA	<3.5	
Note		The device is designed with an intermediate DC circuit at the input. The filter capacitor of this circuit acts as a buffer when the mains supply is switched off. However, if you open the device up, you must be aware that the input circuit still carries over 100V DC for some time after the mains voltage is switched off.	

Scope of supply:

Spider8 with four 4.8 kHz carrier-frequency channels, or Spider8-30 with four 600 Hz carrier-frequency channels or Spider8-01 with four DC-channels

IEEE1284 cable; 1.5 m (parallel link to PC or to next Spider8) RS-232 cable; 2 m (serial link)

With Spider8-01 and SR01:Subcon 5Socket for SR01 (included in scope of supply)

Power pack incl. cable

Accessories:

IEEE1284 cable; 0.3 m (parallel link b 4.8 kHz carrier frequency measuring r 600 Hz carrier frequency measuring m	etween cascated Spider8 devices) nodule as additional channel nodule as additional channel	3-3301.0112 1-SR55 1-SR30
active signal sources, thermocoupl	es, resistance transducers as additional channel	1-SR01
catman [®] Easy catman [®] Professional	Software for simple acquisition of measurement data Software for acquisition, analysis and visualization of measurement data	1-CATMAN-EASY 1-CATMAN32-E
DP15P RS232-USB converter, 1.8 m cable	Sub-D plug for SR30/SR55	2-3312.0182 1-USB-ADAPT

SPIDER8... / measuring module combinations

	SR01	SR30	SR55
SPIDER8	•		•
SPIDER8-30	•	•	
SPIDER8-01/30	•	•	
SPIDER8-01/55	•		•

1-SPIDER8 1-SPIDER8-30 1-SPIDER8-01/30 or 1-SPIDER8-01/55 (see table below)

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