

Table 19-1 HP 44723A Specifications

SPECIFICATIONS

Operating Range:

	Nominal Voltage (Vdc)		
	5*	12	24
Threshold Voltage (V): Vlow (max)	0.79	1.89	3.80
Vhigh (min)	2.06	4.92	9.90
Input Current (mA) at Nominal Voltage	0.001	1.39	3.77
Minimum Pulse Width (nS)	600	420	355

* = Also Includes PULLUP position

Maximum Input Voltage: ±24 Vdc (between any terminal and chassis)

Maximum Voltage/Current: ±24 Vdc (max) @ 600 Ω. Low-level (Open Collector Output) voltage/current = 0.4 Vdc @ 40 mA

Maximum Voltage/Current: 5.5 Vdc (max) @ 5.2 mA. Low level (TTL Output) voltage/current = 0.4 Vdc @ 48 mA

Trigger Terminals Outputs:

With TRIGMODE FIRST: 5 Vdc (CMOS) negative (HL) edge (Does not apply to Second Rank Input Trigger Output)

With TRIGMODE ALL: 5 Vdc negative TTL pulse. Nominal value = 2 μS. Range = 1.70 μS to 2.80 μS.

Maximum Wire Size: 16 AWG

Relative Power Consumption: 0.7 W**

** = For multiple accessories, ensure that the sum of the relative power consumption does not exceed 8 for the HP 3852A or 10 for an HP 3853A

SPEED CHARACTERISTICS

This part provides supplemental characteristics which show TYPICAL or NOMINAL, but Non-Warranted performance parameters.

Input Speeds: Rates (reading/sec) to program and execute reads of digital inputs and to transfer readings.

Table 19-1 HP 44723A Specifications (Cont.)

Readings to Mainframe Memory (rdgs/sec):	
Packed Format:	176,000
IN16 Format:	176,000
Readings to Controller via HP-IB (rdgs/sec):	
Packed Format:	2550
IN16 Format:	2550
IASC Format:	625

Output Speeds: Times to program and execute digital writes (16 channels at one time).

	Commands from Downloaded Subroutine	Commands from HP Series 200/300 Controller via HP-IB
Response Time (mS)	0.5	4.0
Continuous Operation (transition/second)	189,000	110

Interrupts: Time (mS) between event occurrence and resulting action for a single interrupt and the maximum continuous interrupt rate (interrupt occurs, is serviced and reenabled, and the sequence repeats)

Interrupt Condition	Resulting Action		
	Max time for single call to interrupt subroutine (mS)	Max time to enable SRQ line once (mS)	Max continuous Max continuous (interrupt/sec)
Digital Input:			
Edge Occurance	2.6	0.4	400
Bit Pattern	2.6	0.4	400
Input Trigger	2.6	0.4	320

Table 19-1 HP 44723A Specifications (Cont.)

Set-Up and Hold Times: Time (nS) from occurrence of digital input to generation of first rank input trigger

Source	LOW (0)	HIGH (1)	Setup Time (nS)	Hold Time (nS)
5 V	0 V	3 V	500	700
12 V	0 V	7 V	300	500
24 V	0 V	14 V	225	425

Input Trigger Timing: Minimum time (nS) between first and second rank input trigger.

5 V:	590 nS
12 V:	390 nS
24 V:	320 nS

Trigger Output Delays:

Delay time from reception of an external trigger into the IN trigger terminal to generation of a trigger output from the OUT trigger terminal or to generation of valid output data.

- 1ST IN TRIG IN to 1ST IN TRIG OUT
- 2ND IN TRIG IN to 2ND IN TRIG OUT [1]
- 2ND OUT TRIG IN to 2ND OUT TRIG OUT
- 2ND OUT TRIG OUT to valid data output [2]

[1] = add 600 nS if a "collision" occurs between the first and second rank input triggers (i.e., the second rank input trigger occurs too soon after the first rank input trigger). See "Input Trigger Timing" for minimum times.

[2] = add 600 nS if a "collision" occurs between the write to the first rank output register and generation of a second rank output trigger.

5 V:	800 nS
12 V:	600 nS
24 V:	530 nS