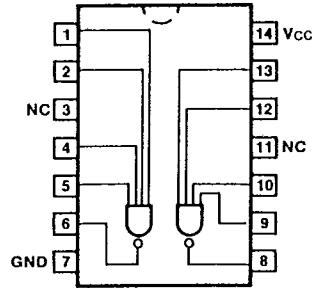


F-43-15

**54/7420**  
**54H/74H20**  
**54S/74S20**  
**54LS/74LS20**  
 DUAL 4-INPUT NAND GATE

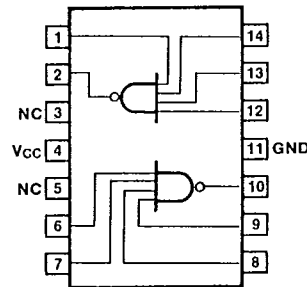
**CONNECTION DIAGRAMS**  
**PINOUT A**



ORDERING CODE: See Section 9

PKGS	PIN OUT	COMMERCIAL GRADE	MILITARY GRADE	PKG TYPE
		V <sub>CC</sub> = +5.0 V ±5%, T <sub>A</sub> = 0°C to +70°C	V <sub>CC</sub> = +5.0 V ±10%, T <sub>A</sub> = -55°C to +125°C	
Plastic DIP (P)	A	7420PC, 74H20PC 74S20PC, 74LS20PC		9A
Ceramic DIP (D)	A	7420DC, 74H20DC 74S20DC, 74LS20DC	5420DM, 54H20DM 54S20DM, 54LS20DM	6A
Flatpak (F)	A	74S20FC, 74LS20FC	54S20FM, 54LS20FM	3I
	B	7420FC, 74H20FC	5420FM, 54H20FM	

**PINOUT B**



INPUT LOADING/FAN-OUT: See Section 3 for U.L. definitions

PINS	54/74 (U.L.) HIGH/LOW	54/74H (U.L.) HIGH/LOW	54/74S (U.L.) HIGH/LOW	54/74LS (U.L.) HIGH/LOW
Inputs	1.0/1.0	1.25/1.25	1.25/1.25	0.5/0.25
Outputs	20/10	12.5/12.5	25/12.5	10/5.0 (2.5)

DC AND AC CHARACTERISTICS: See Section 3\*

SYMBOL	PARAMETER	54/74		54/74H		54/74S		54/74LS		UNITS	CONDITIONS
		Min	Max	Min	Max	Min	Max	Min	Max		
I <sub>CC</sub> H	Power Supply	4.0		8.4		8.0		0.8		mA	V <sub>IN</sub> = Gnd V <sub>CC</sub> = Max
I <sub>CC</sub> L	Current		11		20		18		2.2		
t <sub>PLH</sub>	Propagation Delay	22		10		2.0	4.5	15		ns	Figs. 3-1, 3-4
t <sub>PHL</sub>		15		10		2.0	5.0	15			

\*DC limits apply over operating temperature range; AC limits apply at T<sub>A</sub> = +25°C and V<sub>CC</sub> = +5.0 V.

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