

MODEL CHART – SERIES 221

EXAMPLE	221	WT	7810	10	HF	C1	60			221-WT-7810-C1-60. Liquid level control. Flanged carbon steel chamber. Weather proof enclosure. SPDT snap switch, fixed deadband, automatic reset. Operating pressure 600 psig (41 bar at 100°F (38°C), 550 psig (38 bar) at 475°F (246°C). Side/bottom process connections. 1" NPT hubs. Minimum specific gravity 0.60.		
ENCLOSURE		G WT E EV								General purpose, NEMA-1. Weatherproof, NEMA-3R, 4, 4X. Explosion-proof, NEMA-7, 9. Class I Groups B, C, D. Class II Groups E, F, G. (CSA approved Groups C, D, E, F, G only). Explosion proof, vapor proof, NEMA-7, 9. Class I Groups B, C, D. Class II Groups E, F, G (CSA approved groups C, D, E, F, G only).	UL UL UL	CSA CSA CSA
CIRCUITS (For Electrical Circuits see charts A & B below.)			48XX 48XX 78XX 78XX 78XXHM 98XX 98XX 10XX 10XX	XX XX XX XX						Single stage. Mercury switch. See Chart A. Two stage. Mercury switch. See Chart A. Single stage. Snap switch. See Chart B. Two stage. Snap switch. See Chart B. Hermetically sealed snap switch. See Chart B. Single stage. High capacity DC snap switch. Use heat fins (HF) if process temperature exceeds 350°F (177°C). Do not exceed 450°F (232°C). See Chart B. Two stage. High capacity DC snap switch. Use heat fins (HF) if process temperature exceeds 350°F (177°C). Do not exceed 450°F (232°C). See Chart B. Single stage. High temperature snap switch. Continuous rating 800°F (425°C). See Chart B. 221-C1-60 type rated at 350 psig (25 bar); 221-C1-75 type rated at 550 psig (38 bar). Two stage. High temperature snap switch. Continuous rating 800°F (425°C). See Chart B. 221-C1-60 type rated at 350 psig (25 bar); 221-C1-75 type rated at 550 psig (38 bar).		
FLANGED CHAMBER CONSTRUCTION 1" NPT HUBS	221 221					C1 C1 C1	60 60 75			Refer to Chart C for pressure/temperature ratings. Carbon steel chamber. Minimum specific gravity 0.60. Side/bottom process connections. 1" NPT hub. Minimum specific gravity 0.75. Side/bottom process connections. 1" NPT hub.	UL UL UL	CSA CSA CSA
FLANGED CHAMBER CONSTRUCTION WITH FLANGED PROCESS CONNECTIONS	223 223 223 223 223 224 224 224 224 224 224					C1 C1 C1 C1 C1 C1 C1 C1 C1 C1 C1	160 360 660 175 375 675 160 360 660 175 375 675			Refer to Chart C for pressure/temperature ratings. 1" 150# flanges side/bottom process connection. 1" 300# flanges side/bottom process connection. 1" 600# flanges side/bottom process connection. 1" 150# flanges side/bottom process connection. 1" 300# flanges side/bottom process connection. 1" 600# flanges side/bottom process connection. 1" 150# flanges side/side process connection. 1" 300# flanges side/side process connection. 1" 600# flanges side/side process connection. 1" 150# flanges side/side process connection. 1" 300# flanges side/side process connection. 1" 600# flanges side/side process connection.	UL UL UL UL UL UL UL UL UL UL UL	CSA CSA CSA CSA CSA CSA CSA CSA CSA CSA CSA
OPTIONS					HF			H2 12		High temperature fins should be considered if ambient temperature is extremely high or if process temperature exceeds 500°F (260°C) for extended periods. 1" socket weld hub instead of 1" NPT. Breather and drain for E type enclosure. Recommended for high humidity or outdoor service.		

Level

CHARTS A & B - ELECTRICAL CIRCUITS AND RATINGS

SWITCH TYPE	SWITCH ACTION	ELECTRICAL RATINGS IN AMPS					ORDERING CODE				UL	CSA
		AC			DC		SINGLE STAGE	TWO STAGE				
		120V	240V	440V	125V	250V		LOWER	UPPER			
CHART A	SP-ST Open on level FALL	10	5	3†	10	5	-4821	-4821	-21	UL	CSA	
	SP-ST Open on level RISE	10	5	3†	10	5	-4820	-4820	-20	UL	CSA	
	SP-DT One switch	4	2	1†	4	2	-4810	-4810	-10	UL	CSA	
	SP-DT Two switches E.I.*	10	5	3†	10	5	-4815	-4815	-15	UL	CSA	
	DP-ST Two switches E.I.*	10	5	3†	10	5	-4813	-4813	-13	UL	CSA	
	DP-ST Two switches E.I.* Open on level RISE	10	5	3†	10	5	-4814	-4814	-14	UL	CSA	
	DP-DT Two SP-DT switches	4	2	1†	4	2	-4806	-4806	-06	UL	CSA	
CHART B	SP-DT One switch	12	5	3†	0.5**	0.25**	-7810	-7810	-10	UL	CSA	
	DP-DT Two SP-DT switches	12	5	3†	0.5**	0.25**	-7806	-7806	-06	UL	CSA	
	SP-DT One hermetically sealed switch Δ	5	5				-7810HM	-7810HM	-10HM			
	DP-DT Two hermetically sealed SP-DT switches Δ	5	5				-7806HM	-7806HM	-06HM			
	DP-DT Two SP-DT switches	10	3		10‡	3‡	-9806	-9806	-06			
	SP-DT One switch	10	3		10‡	3‡	-9810	-9810	-10			
	DP-DT Two SP-DT switches	2	2		0.4**	0.25**	-1006	-1006	-06			
SP-DT One switch	2	2		0.4**	0.25**	-1010	-1010	-10				

*Electrically Independent
 †10 Amp inductive (Polarized) at 125 VDC
 **Resistive Δ 30VDC = 5 Resistive
 ‡Available on special order. Change 1st digit in Ordering Code from 4 to 5 or 7 to 8
 i.e. -4820 becomes -5820, -7810 becomes -8810, etc.

CHART C

SERIES	MOUNTING STYLE	MINIMUM SPECIFIC GRAVITY	PRESSURE RATING AT		FLANGE CLASS (psi)	ORDER CODE
			38°C 100°F	246°C 475°F		
221	1" NPT	0.6	600 psi 41 bar	550 psi 38 bar	-	C1-60
221	1" NPT	0.75	1000 psi 69 bar	850 psi 59 bar	-	C1-75
223 224	Flanged	0.6	275 psi 19 bar	150 psi 10 bar	150	C1-160
223 224	Flanged	0.6	600 psi 41 bar	550 psi 38 bar	300	C1-360
223 224	Flanged	0.6	600 psi 41 bar	550 psi 38 bar	600	C1-660
223 224	Flanged	0.75	275 psi 19 bar	150 psi 10 bar	150	C1-175
223 224	Flanged	0.75	720 psi 50 bar	625 psi 43 bar	300	C1-375
223 224	Flanged	0.75	1000 psi 69 bar	850 psi 59 bar	600	C1-675