

6.2.8 Register 7: Output Enable Counter Control Register (Read/Write, Address Pointer = 00111)

Bit #	D15	D14	D13	D12	D11	D10	D9	D8	D7	D6	D5	D4	D3	D2	D1	D0
Bit Name	RFB	RFB	RFB	RFB	DLY3	DLY2	DLY1	DLY0	OEN7	OEN6	OEN5	OEN4	OEN3	OEN2	OEN1	OEN0
POR Value	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0

Bit Descriptions:

RFB: Reserved Factory Bit: Set to zero for proper operation

DLY[3:0]:Temp ADC Delay

Temp ADC begins conversion after DLY[3:0] x 10ms after valid WRITE to this register. Initial count, DLY[3:0] is decremented every 10ms to zero count and then Temp ADC is enabled. This allows for linearization and excitation analog circuitry to settle before applying temperature compensation.

OEN[7:0]: Output Enable Counter for One-Wire Interface/ V_{OUT} Multiplexed Mode.

V_{OUT} is enabled after a valid WRITE to this register. Any non-zero value = V_{OUT} Enable initial count, decremented every 10ms to zero count, and then V_{OUT} is disabled. After V_{OUT} is disabled, a one-second internal timer is set. If serial communication takes place from an outside controller on either the One-Wire interface (PRG pin) or Two-Wire interface, then V_{OUT} will remain disabled as long as the PGA309 is addressed at least once per second.

Table 6–17. Temp ADC—Delay After V_{OUT} Enable

DLY3 [11]	DLY2 [10]	DLY1 [9]	DLY0 [8]	Decimal Equivalent (Initial Counter Value)	Temp ADC Delay ⁽¹⁾ (ms)
0	0	0	0	0	0
0	0	0	1	1	10
0	0	1	0	2	20
0	0	1	1	3	30
0	1	0	0	4	40
0	1	0	1	5	50
0	1	1	0	6	60
0	1	1	1	7	70
1	0	0	0	8	80
1	0	0	1	9	90
1	0	1	0	10	100
1	0	1	1	11	110
1	1	0	0	12	120
1	1	0	1	13	130
1	1	1	0	14	140
1	1	1	1	15	150

⁽¹⁾ Temp ADC Delay = Initial Counter Value x 10ms

Table 6–18. Output Enable Counter for One-Wire Interface/ V_{OUT} Multiplexed Mode

Digital Input OEN7.....OEN0 [7.....0] (Binary)	Decimal Equivalent (Initial Counter Value)	V_{OUT} Enable Timeout ⁽¹⁾ (ms)
0000 0000	0	0 (V_{OUT} disabled)
0010 0000	32	320
0100 0000	64	640
0110 0000	96	960
1000 0000	128	1280
1010 0000	160	1600
1100 0000	192	1920
1110 0000	224	2240
1111 1111	255	2550

⁽¹⁾ V_{OUT} Enable Timeout = Initial Counter Value x 10ms