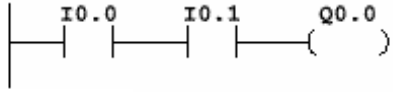
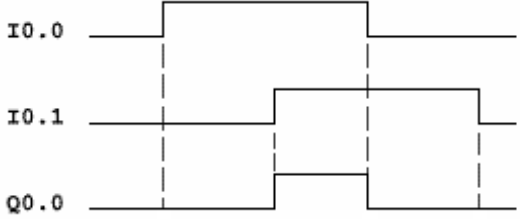
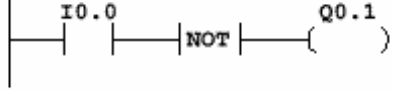

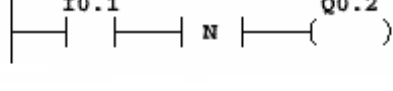

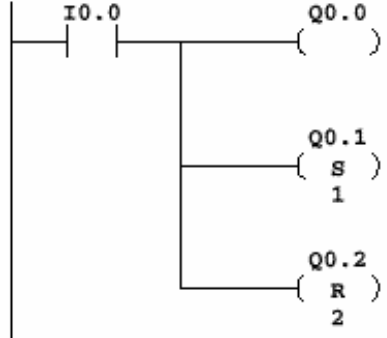
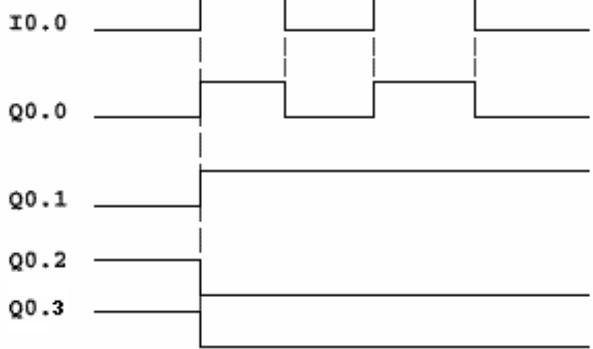
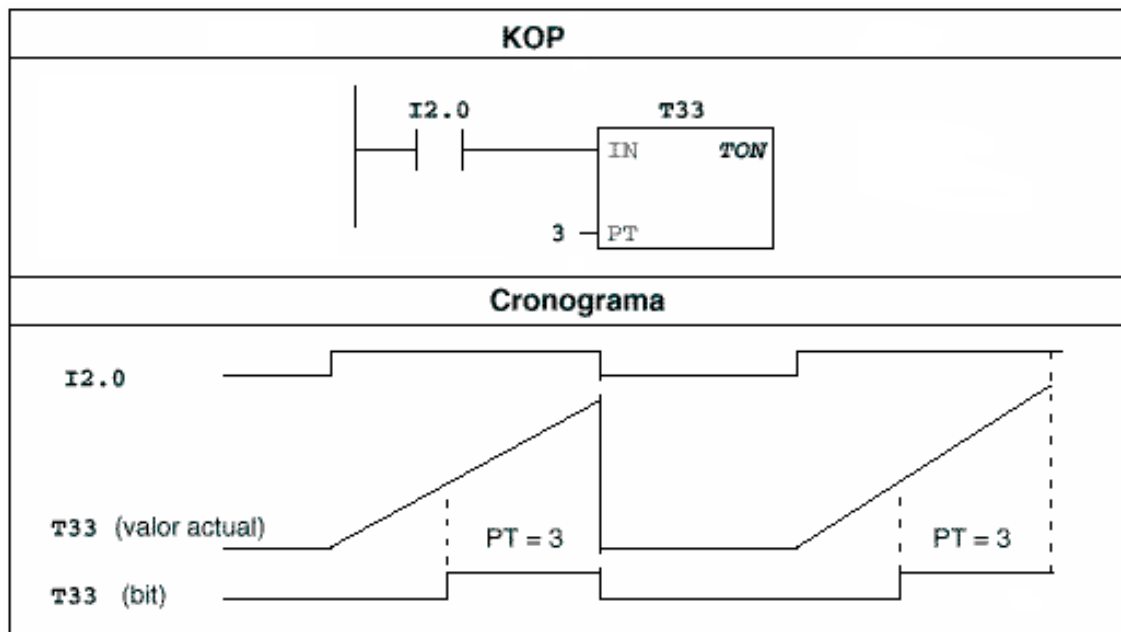


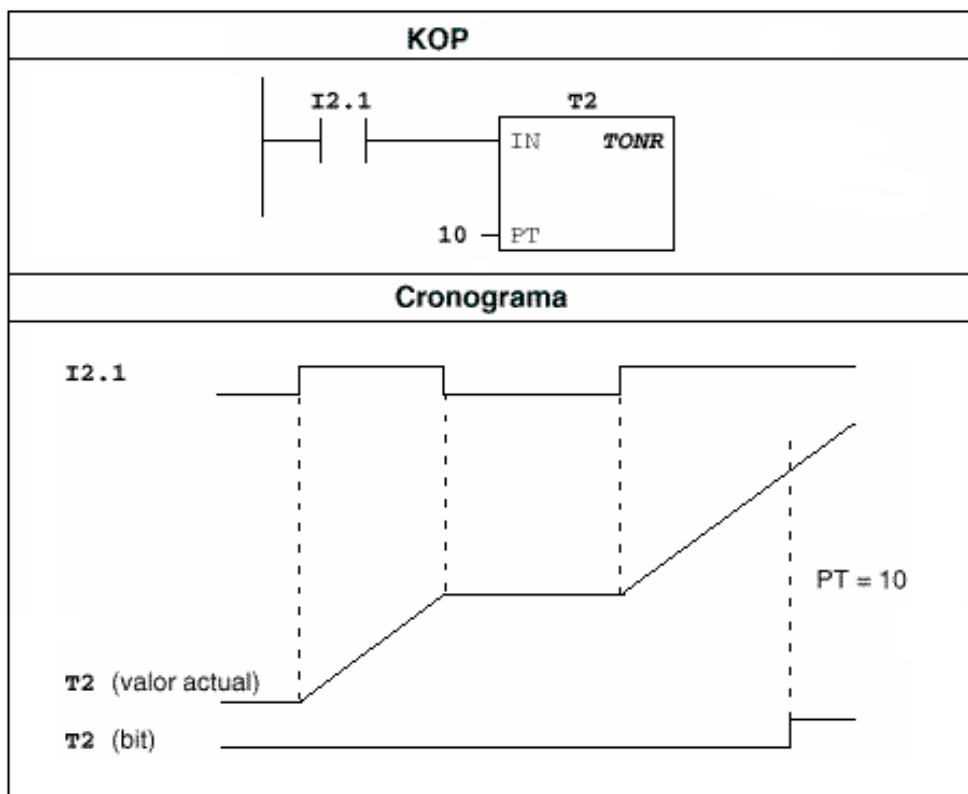
KOP	Cronograma
	
	
	

KOP	Cronograma
	

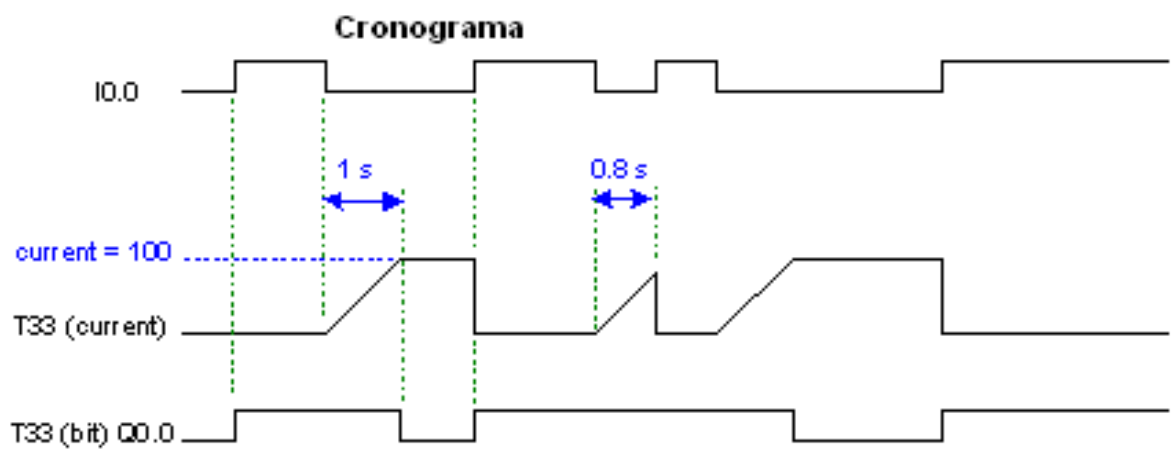
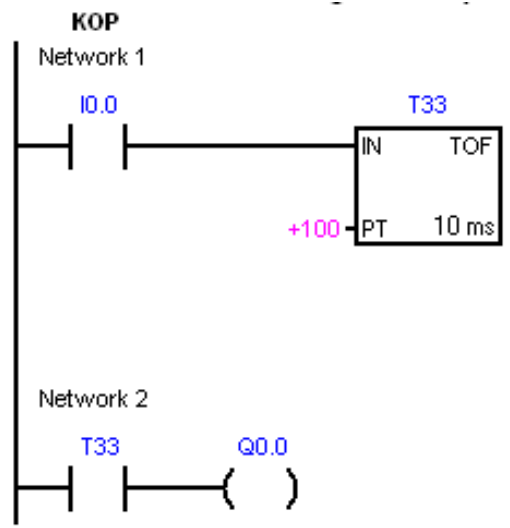
## Temporizador con retardo a la conexión



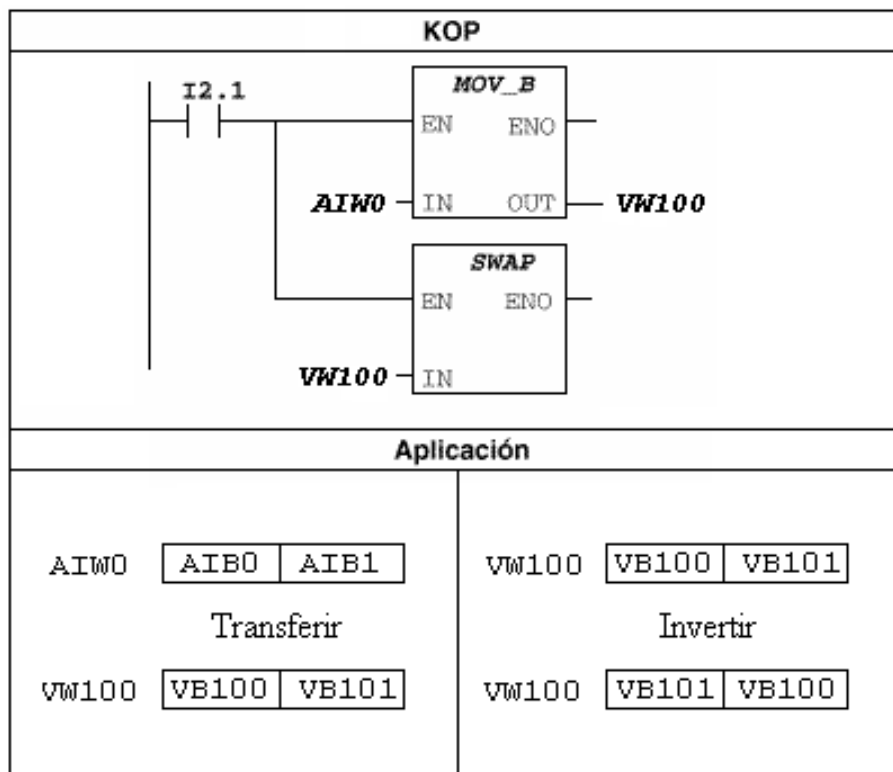
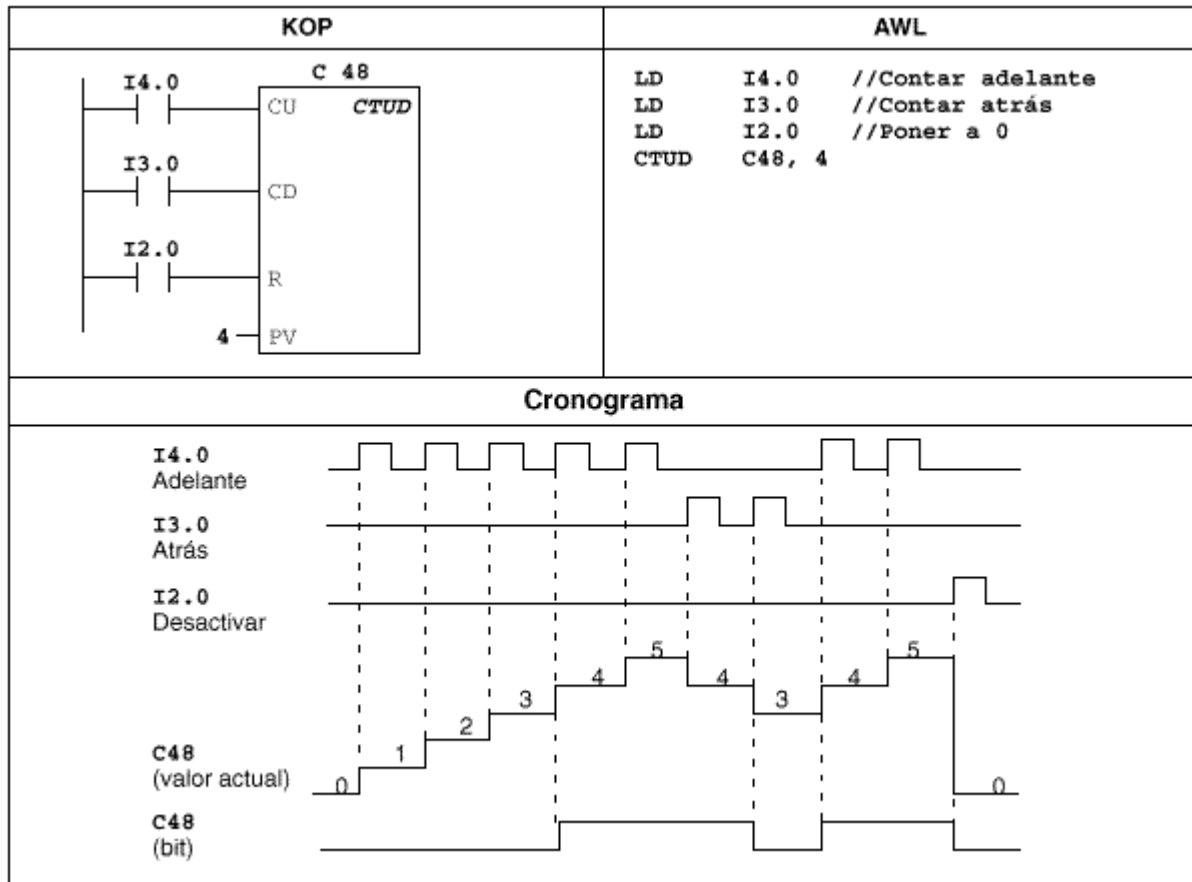
## Temporizador con retardo a la conexión memorizado



# Temporizador con retardo a la desconexión

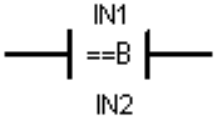
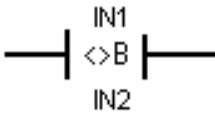
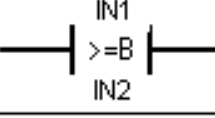
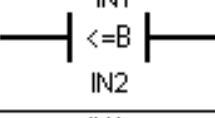
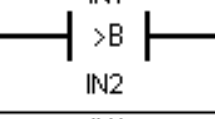
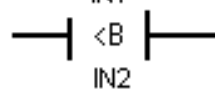


# Contador Adelante/atrás

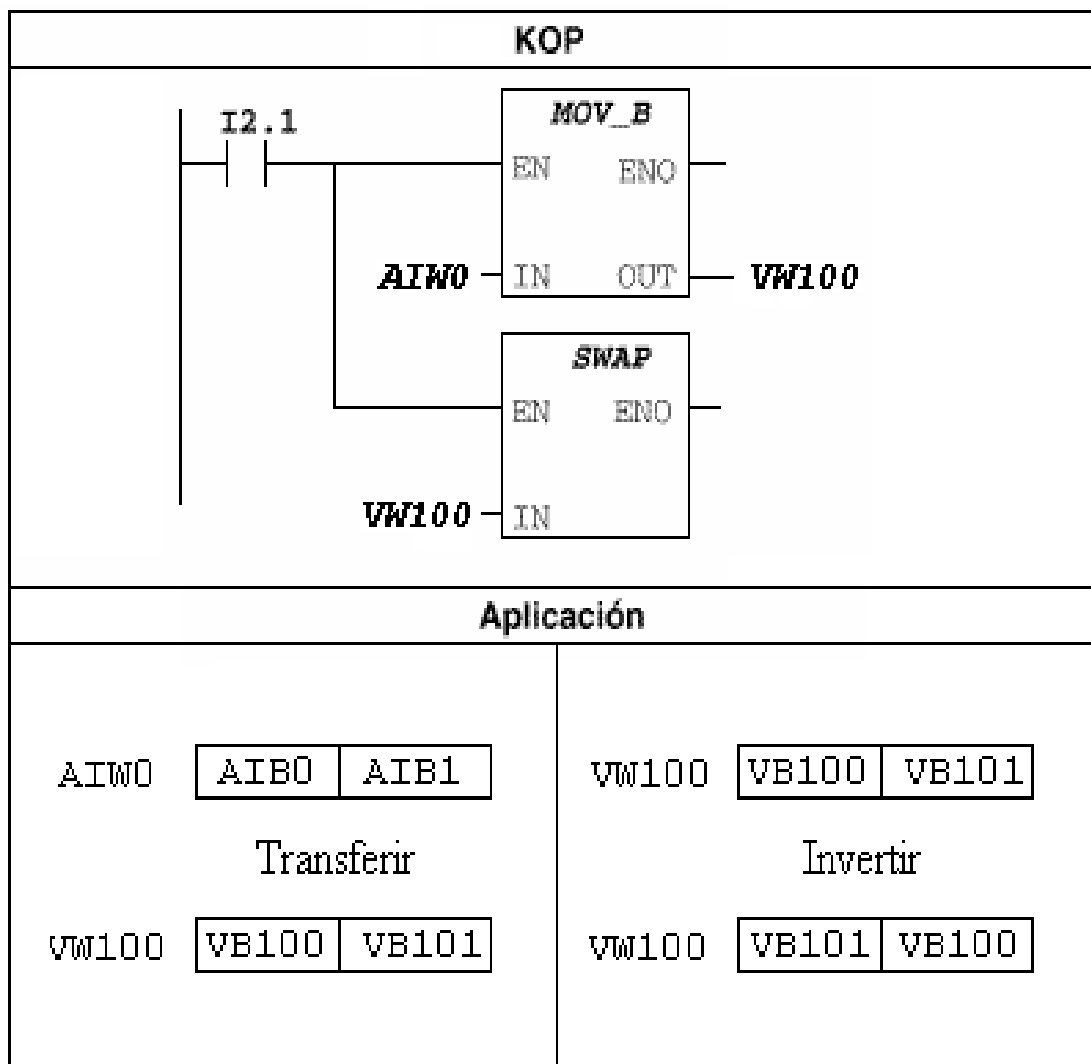




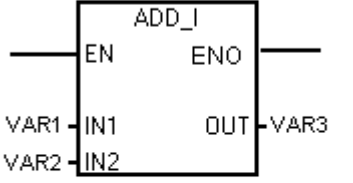
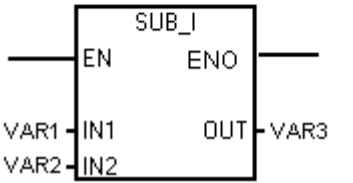
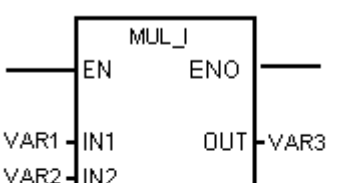
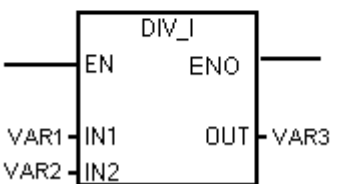
# Operaciones Comparación

Elemento en KOP	Descripción
	RLO = 1    IN1 == IN2 RLO = 0    IN1 != IN2
	RLO = 1    IN1 != IN2 RLO = 0    IN1 == IN2
	RLO = 1    IN1 >= IN2 RLO = 0    IN1 < IN2
	RLO = 1    IN1 <= IN2 RLO = 0    IN1 > IN2
	RLO = 1    IN1 > IN2 RLO = 0    IN1 <= IN2
	RLO = 1    IN1 < IN2 RLO = 0    IN1 >= IN2

# Operaciones de Transferencia



# Operaciones Aritméticas

Elemento en KOP	Descripción
	Si EN activo: $\text{VAR3} = \text{VAR1} + \text{VAR2}$
	Si EN activo: $\text{VAR3} = \text{VAR1} - \text{VAR2}$
	Si EN activo: $\text{VAR3} = \text{VAR1} * \text{VAR2}$
	Si EN activo: $\text{VAR3} = \text{VAR1} / \text{VAR2}$



# AWL

	Normalizada IEC 1131-3	STEP7 inglesa (Internacional)	STEP7 alemana (SIMATIC)
<i>Variables predefinidas</i>			
Entradas	I, IX, IB, IW	I, IB, IW, ID	E, EB, EW, ED
Salidas	Q, QX, QB, QW, QD	Q, QB, QW, QD	A, AB, AW, AD
Marcas	M, MX, MB, MW, MD	M, MB, MW, MD	M, MB, MW, MD
<i>Operaciones lógicas básicas</i>			
Carga inicial	LD	A u O	U u O
Y	AND	A	U
NO-Y	ANDN	AN	UN
O	OR	O	O
NO-O	ORN	ON	ON
O-exclusiva	XOR	X	X
NO-O-exclusiva	XORN	XN	XN
<i>Operaciones con paréntesis</i>			
Y	AND(	A(	U(
NO-Y	ANDN(	AN(	UN(
O	OR(	O(	O(
NO-O	ORN(	ON(	ON(
O-exclusiva	XOR(	X(	X(
NO-O-exclusiva	XORN(	XN(	XN(
Cerrar paréntesis	)	)	)
<i>Terminar una cadena lógica</i>			
Asignar	ST	=	=
Desactivar	R	R	R
Activar	S	S	S
<i>Operaciones con flancos</i>			
Flanco negativo	LDF, ORF, ANDF	FN	FN
Flanco positivo	LDR, ORR, ANDR	FP	FP