Sommario

OP10Init

O = *Output*

P = *Programmable*

The OP10Init function is part of a collection of functions for programming an output according to the methodology described below. Other functions that are part of the collection are:

OP10isParOk Check the programmed data for the outputs program;
OP10isOutOn Check the output state;
OP10ResOut Forcing the output deactivation;
OP10SetOut Forcing the output activation;
OP10ResRet Reset the output retentive;
*OP10Manage* Output management;

Output programming methodology is summarized in this help.

The "op10arFun[7]" parameter, allows you to program, the programmable output mode depending on the "op10Param1" value within the bands of visualization. The bands are determined by the minimal view (H) and maximum view (n) and the alarm thresholds (d and A); in this way the range of "op10Param1" value becomes:

3 working groups are identified: Hd, dA, An and for each output can be programmed a different range setting. You can also enable the output function within a band, only when the "op10Param1" value has already affected another band ("Dependence on band"). The latter mode of operation allows you to enable a specific output operation after the software starts, the display has stabilized; for example you can program the output is activated in the Hd band, not until that the "op10Param1" value has reached the dA band.
Each digit of the "op10arFun[7]" parameter has its own meaning about the operating mode and depending upon the output range. The following is an example of "op10arFun[7]" parameter programming.
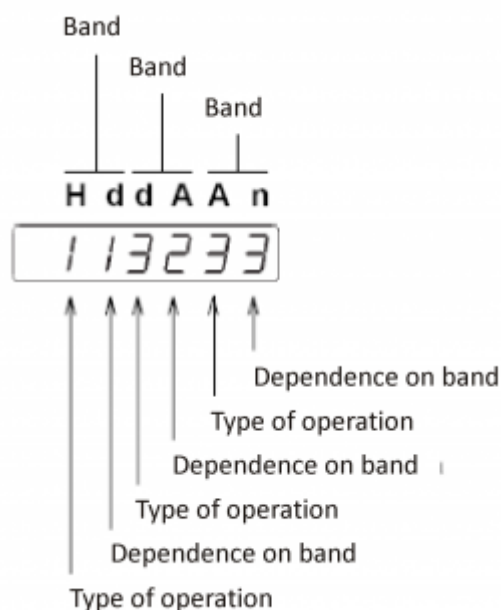
Type of operation

1 Active
2 Activate interlocks (resettable)
3 Disable
4 Disable interlocks (resettable)

Dependence on headband

1 Band from Hd

2 Band from dA
3 Band from An
4 Dependence on the initial timer
5 Depends on timer range associated with the band

The initial timer is triggered at start-up and strength (throughout its duration) corresponding output logic State contrary to planned, then the output will return to work as from setup.

The following spoke outside the range timer membership range and serve to delay the switching output programmable logic. This gives you added security by entering the next range, avoiding oscillations.

Example 1

You want to program the output as graph. The comparison to the activation of the Hd band should be enabled after the "op10Param1" value he has reached the An band. The "op10arFun[7]" parameter becomes **233213**. Until, the "op10Param1" value did not meet the An band and stays within of Hd or dA, the output remains OFF. If the value returns within the Hd range, the output is activated and remains active because of the retention even when the value comes from the Hd range up to a reset of the output.

Example 2
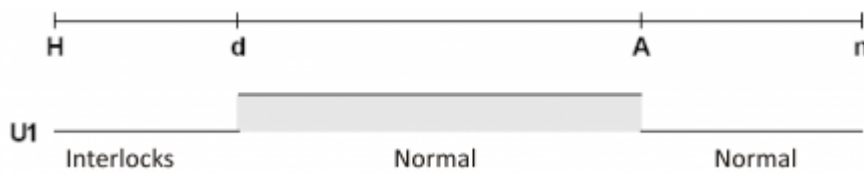
You want to program the output as graph. The comparison to the activation of the Hd band should be enabled after the "op10Param1" value he has reached the dA band. The "op10arFun[7]" parameter becomes **421233**. Until, the "op10Param1" value did not meet the dA band and stays within of Hd, the output remains OFF and without withholding. When the value returns to the Hd band, the output remains off due restraint even when the value comes from the band Hd band.

IMPLEMENTATION

OP10Init (op10arFun)

Initializes the "op10arFun" array. The "op10arFun" array must be at least 11 items.

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	ARRGBL	op10arFun[1]	L	Threshold "d"
IN	ARRGBL	op10arFun [2]	L	Threshold "A"
IN	ARRGBL	op10arFun[3]	L	Timer for "An" band (msec)
IN	ARRGBL	op10arFun[4]	L	Timer for "dA" band (msec)
IN	ARRGBL	op10arFun[5]	L	Timer for "Hd" band (msec)
IN	ARRGBL	op10arFun[6]	L	Initial timer
IN	ARRGBL	op10arFun[7]	L	Type of the output function and dependence (FU) in decimal format
-	ARRGBL	op10arFun[8]	L	Reserved
-	ARRGBL	op10arFun[9]	L	Reserved
-	ARRGBL	op10arFun[10]	L	Reserved
-	ARRGBL	op10arFun[11]	L	Reserved

OP10isParOk (OutpProgU1, op10RetSts, op10RetValue)

Check the programmed data for to program the output and returns a value to be assigned to op10arFun[7].

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	GLOBAL	OutpProgU1	L	Type of the output function and dependence (FU) in decimal format

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
OUT	GLOBAL	op10RetSts	F	0: invalid output value 1: valid output value
OUT	GLOBAL	op10RetValue	L	Type of the output function and dependence (FU) in BCD format

OP10Manage (op10Param1, op10arFun)

Execute the comparisons and sets the status of the pulse output that can be read by using the "OP10isOutOn" function. The "op10arFun" array must be at least 11 items.

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	GLOBAL	op10Param1	L	The value to compare with the bands
IN	ARRGBL	op10arFun[1]	L	Threshold "d"
IN	ARRGBL	op10arFun[2]	L	Threshold "A"
IN	ARRGBL	op10arFun[3]	L	Timer for "An" band (msec)
IN	ARRGBL	op10arFun[4]	L	Timer for "dA" band (msec)
IN	ARRGBL	op10arFun[5]	L	Timer for "Hd" band (msec)
IN	ARRGBL	op10arFun[6]	L	Initial timer
IN	ARRGBL	op10arFun[7]	L	Type of the output function and dependence (FU)
-	ARRGBL	op10arFun[8]	L	Reserved
-	ARRGBL	op10arFun[9]	L	Reserved
-	ARRGBL	op10arFun[10]	L	Reserved
-	ARRGBL	op10arFun[11]	L	Reserved

OP10isOutOn (op10arFun, op10RetSts)

Returns the status of the programmable output.

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	ARRGBL	op10arFun	L	Array's parameters. See previous features.
OUT	GLOBAL	op10RetSts	F	0: output OFF 1: output ON

OP10ResProg (op10arFun)

Resets the status of the programmable output.

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	ARRGBL	op10arFun	L	Array's parameters. See previous features.

OP10SetProg (op10arFun)

Sets the status of the programmable output.

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	ARRGBL	op10arFun	L	Array's parameters. See previous features.

OP10ResRet (op10arFun)

Reset the programmable output restraint.

IN/OUT	VARIABLE TYPE	EXAMPLE NAME	DIM	
IN	ARRGBL	op10arFun	L	Array's parameters. See previous features.

Example 3

```
; Out U1 - Init
OP10Init ( OutpU1 )
OP10isParOk ( OutpProgU1, LOutpRetSts, LOutpRetVal )
IF LOutpRetSts
    OutpU1[7]  = LOutpRetVal    ; Out functioning type & band dependence
ELSE
    OutpU1[7] = 0
ENDIF

MAIN:

    ; Out U1 - Function
    IF OutpMode EQ 1
        LOutpParam = CmRpmT
        OP10Manage ( LOutpParam, OutpU1 )
        OP10isOutOn ( OutpU1, LOutpRetSts )
        out01 = LOutpRetSts
    ELSE
        OP10ResOut ( OutpU1 )
        out01 = 0
    ENDIF

    WAIT 1
```

```
     JUMP MAIN
END
```