Bpr

%Bpr function

Old name	%BprB
Function	The function implements a two-position controller. Result is a value of Boolean type.

Declaration	`BOOL %Bpr(`
	`  REAL in RV,`
	`  REAL in IV,`
	`  REAL in DeadBand,`
	`  REAL in Hysteresis,`
	`  BOOL in OO/CO`
	`  )`

Parameters	**RV** — Required value. **IV** — Input value. **DeadBand** — Dead band. **Hysteresis** — Hysteresis. **OO** — Opening output. **CO** — Closing output.
Note	Regulation is executed according to the left part of the figure (`OO/CO = @OO`) or according to the right part of the figure (`OO/CO = @CO`). **Parameters:** • `DeadBand` = AC (>0) - real value • `Hysteresis` = BC (>0) - real value **Input variables:** • `IV (input value)` - real value • `RV (required value)` - real value (constant or continuous signal) **Output variables:** • `OO (opening output)` - value of Boolean type • `CO (closing output)` - value of Boolean type **Function:** • State1: IV <= RV - AD, then OO=1 and CO=0 • State2: RV - AD < IV < RV - AB, then OO is not changing and CO=0 • State3: RV - AB <= IV <= RV + AB, then OO=CO=0 • State4: RV + AB < IV < RV + AD, then OO=0 and CO is not changing • State5: RV + AD <= IV, then OO=0 and CO=1

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