Parameters described in this page can be accessed by: DRI- > CONF > FULL > FUN- > PID-

Code	Name / Description	Adjustment range	Factory setting
Fun-	**[APPLICATION FUNCT.] (continued)**		
PId-	**[PID REGULATOR]** **Note**: This function cannot be used with certain other functions. Follow the instructions on page 163.		
PIF	**[PID feedback ass.]**		**[No]** (nO)
nO	**[No]** (nO): Not assigned		
AI1	**[AI1]** (AI1): Analog input A1		
AI2	**[AI2]** (AI2): Analog input A2		
AI3	**[AI3]** (AI3): Analog input A3		
PI	**[RP]** (PI): Pulse input		
AIU1	**[AI virtual 1]** (AIU1): Virtual analog input 1 by the communication bus		
AIU2	**[AI virtual 2]** (AIU2): Virtual analog input 2 by the communication bus		
oAO1	**[OA01]** (oAO1): Function blocks: Analog Output 01		
...	...		
oA10	**[OA10]** (oA10): Function blocks: Analog Output 10		
AIC2	**[AI2 net. channel]**		**[No]** (nO)
★	This parameter can be accessed if **[PID feedback ass.]** (PIF) is set to **[AI virtual 2]** (AIU2). This parameter can also be accessed in the **[INPUTS / OUTPUTS CFG]** (I_O-) menu.		
nO	**[No]** (nO): Not assigned		
Mdb	**[Modbus]** (Mdb): Integrated Modbus		
CAn	**[CANopen]** (CAn): Integrated CANopen®		
nEt	**[Com. card]** (nEt): Communication card (if inserted)		
PIF1	**[Min PID feedback]**	0 to **[Max PID feedback]** (PIF2) (2)	100
★	Value for minimum feedback.		
↻			
(1)			
PIF2	**[Max PID feedback]**	**[Min PID feedback]** (PIF1) to 32,767 (2)	1,000
★	Value for maximum feedback.		
↻			
(1)			
PIP1	**[Min PID reference]**	**[Min PID feedback]** (PIF1) to **[Max PID reference]** (PIP2) (2)	150
★	Minimum process value.		
↻			
(1)			
PIP2	**[Max PID reference]**	**[Min PID reference]** (PIP1) to **[Max PID feedback]** (PIF2) (2)	900
★	Maximum process value.		
↻			
(1)			
PII	**[Act. internal PID ref.]**		**[No]** (nO)
★	Internal PID regulator reference.		
nO	**[No]** (nO): The PID regulator reference is given by **[Ref.1 channel]** (Fr1) or **[Ref.1B channel]** (Fr1b) with summing/subtraction/multiplication functions (see the diagram on page 206).		
YES	**[Yes]** (YES): The PID regulator reference is internal via **[Internal PID ref.]** (rPI).		

Parameters described in this page can be accessed by: DRI- > CONF > FULL > FUN- > PID-

Code	Name / Description	Adjustment range	Factory setting
rPI ★ ↻	**[Internal PID ref.]** Internal PID regulator reference. This parameter can also be accessed in the **[1.2 MONITORING]** (MON-) menu.	**[Min PID reference]** (PIP1) to **[Max PID reference]** (PIP2)	150
rPG ★ ↻	**[PID prop. gain]** Proportional gain.	0.01 to 100	1
rIG ★ ↻	**[PID integral gain]** Integral gain.	0.01 to 100	1
rdG ★ ↻	**[PID derivative gain]** Derivative gain.	0.00 to 100	0
PrP ★ ↻ (1)	**[PID ramp]** PID acceleration/deceleration ramp, defined to go from **[Min PID reference]** (PIP1) to **[Max PID reference]** (PIP2) and vice versa.	0 to 99.9 s	0 s
PIC ★ nO YES	**[PID correct. reverse]** Reversal of the direction of correction **[PID correct. reverse]** (PIC): If **[PID correct. reverse]** (PIC) is set to **[No]** (nO), the speed of the motor will increase when the error is positive (example: pressure control with a compressor) If **[PID correct. reverse]** (PIC) is set to **[Yes]** (YES), the speed of the motor will decrease when the error is positive (example: temperature control using a cooling fan). **[No]** (nO): No **[Yes]** (YES): Yes		**[No]** (nO)
PoL ★ ↻ (1)	**[Min PID output]** Minimum value of regulator output in Hz.	- 599 to 599 Hz	0 Hz
PoH ★ ↻ (1)	**[Max PID output]** Maximum value of regulator output in Hz.	0 to 599 Hz	60 Hz
PAL ★ ↻ (1)	**[Min fbk alarm]** Minimum monitoring threshold for regulator feedback.	**[Min PID feedback]** (PIF1) to **[Max PID feedback]** (PIF2) (2)	100

Parameters described in this page can be accessed by: DRI- > CONF > FULL > FUN- > PID-

Code	Name / Description	Adjustment range	Factory setting
PAH ★ (1)	**[Max fbk alarm]** Maximum monitoring threshold for regulator feedback.	**[Min PID feedback]** (PIF1) to **[Max PID feedback]** (PIF2) (2)	1,000
PEr ★ (1)	**[PID error Alarm]** Regulator error monitoring threshold.	0 to 65,535 (2)	100
PIS ★	**[PID integral reset]** If the assigned input or bit is at 0, the function is inactive (the PID integral is enabled). If the assigned input or bit is at 1, the function is active (the PID integral is disabled). nO **No]** (nO): Not assigned LI1 **[LI1]** (LI1): Logical input LI1 ... **[...]** (...): See the assignment conditions on page 153		**[No]** (nO)
FPI ★	**[Speed ref. assign.]** PID regulator predictive speed input. nO **[No]** (nO): Not assigned AI1 **[AI1]** (AI1): Analog input A1 AI2 **[AI2]** (AI2): Analog input A2 AI3 **[AI3]** (AI3): Analog input A3 LCC **[HMI]** (LCC): Graphic display terminal or remote display terminal source Mdb **[Modbus]** (Mdb): Integrated Modbus CAn **[CANopen]** (CAn): Integrated CANopen® nEt **[Com. card]** (nEt): Communication option board source PI **[RP]** (PI): Pulse input AIuI **[AI virtual 1]** (AIuI): Virtual analog input 1 with the jog dial oAO1 **[OA01]** (oAO1): Function blocks: Analog Output 01 ... oA10 **[OA10]** (oA10): Function blocks: Analog Output 10		**[No]** (nO)
PSr ★ (1)	**[Speed input %]** Multiplying coefficient for predictive speed input. This parameter cannot be accessed if **[Speed ref. assign.]** (FPI) is set to **[No]** (nO).	1 to 100%	100%
PAu ★	**[Auto/Manual assign.]** If the assigned input or bit is at 0, the PID is active. If the assigned input or bit is at 1, manual operation is active. nO **[No]** (nO): Not assigned LI1 **[LI1]** (LI1): Logical input LI1 ... **[...]** (...): See the assignment conditions on page 153		**[No]** (nO)
AC2 ★ (1)	**[Acceleration 2]** Time to accelerate from 0 to the **[Rated motor freq.]** (FrS). To have repeatability in ramps, the value of this parameter must be set according to the possibility of the application. Ramp AC2 is only active when the PID function starts up and during PID "wake-ups".	0.00 to 6,000 s (3)	5 s

Code	Name / Description	Adjustment range	Factory setting
PIM ★	**[Manual reference]** Manual speed input. This parameter can be accessed if **[Auto/Manual assign.]** (PAU) is not set to **[No]** (nO). The preset speeds are active on the manual reference if they have been configured. nO **[No]** (nO): Not assigned AI1 **[AI1]** (AI1): Analog input A1 AI2 **[AI2]** (AI2): Analog input A2 AI3 **[AI3]** (AI3): Analog input A3 PI **[RP]** (PI): Pulse input AIU1 **[AI virtual 1]** (AIU1): Virtual analog input 1 with the jog dial OAO1 **[OA01]** (OAO1): Function blocks: Analog Output 01 ... OA10 **[OA10]** (OA10): Function blocks: Analog Output 10		**[No]** (nO)
tLS ↻ (1)	**[Low speed time out]** Maximum operating time at **[Low speed]** (LSP) (see **[Low speed]** (LSP) page 87). Following operation at **[Low speed]** (LSP) for a defined period, a motor stop is requested automatically. The motor will restart if the reference is greater than **[Low speed]** (LSP) and if a run command is still present. **Note:** A value of 0 indicates an unlimited period of time. If **[Low speed time out]** (tLS) is not 0, **[Type of stop]** (STT) page 173 is forced to **[Ramp stop]** (rMP) (only if a ramp stop can be configured).	0 to 999.9 s	0 s
rSL ★ 2 s	**[PID wake up thresh.]** **⚠WARNING** **UNANTICIPATED EQUIPMENT OPERATION** Verify that activating this function does not result in unsafe conditions. **Failure to follow these instructions can result in death, serious injury, or equipment damage.** If the "PID" and "Low speed operating time" **[Low speed time out]** (tLS) functions are configured at the same time, the PID regulator may attempt to set a speed lower than **[Low speed]** (LSP). This results in unsatisfactory operation, which consists of starting, operating at low speed then stopping, and so on… Parameter **[PID wake up thresh.]** (rSL) (restart error threshold) can be used to set a minimum PID error threshold for restarting after a stop at prolonged **[Low speed]** (LSP). **[PID wake up thresh.]** (rSL) is a percentage of the PID error (value depends on **[Min PID feedback]** (PIF1) and **[Max PID feedback]** (PIF2), see **[Min PID feedback]** (PIF1) page 210). The function is inactive if **[Low speed time out]** (tLS) = 0 or if **[PID wake up thresh.]** (rSL) = 0.	0.0 to 100.0	0

(1) The parameter can also be accessed in the **[SETTINGS]** (SEt-) menu.
(2) If a graphic display terminal is not in use, values greater than 9,999 will be displayed on the 4-digit display with a period mark after the thousand digit, for example, 15.65 for 15,650.
(3) Range 0.01 to 99.99 s or 0.1 to 999.9 s or 1 to 6,000 s according to **[Ramp increment]** (inr) page 170.

★ These parameters only appear if the corresponding function has been selected in another menu. When the parameters can also be accessed and adjusted from within the configuration menu for the corresponding function, their description is detailed in these menus, on the pages indicated, to aid programming.

↻ Parameter that can be modified during operation or when stopped.

2 s To change the assignment of this parameter, press the ENT key for 2 s.

Parameters described in this page can be accessed by: DRI- > CONF > FULL > FUN- > PRI-

PID PRESET REFERENCES

Code	Name / Description	Adjustment range	Factory setting
FUN-	**[APPLICATION FUNCT.] (continued)**		
PRI-	**[PID PRESET REFERENCES]** Function can be accessed if **[PID feedback ass.]** (PIF) page 210 is assigned.		
Pr2	**[2 preset PID ref.]** If the assigned input or bit is at 0, the function is inactive. If the assigned input or bit is at 1, the function is active. nO **[No]** (nO): Not assigned LI1 **[LI1]** (LI1): Logical input LI1 ... **[...]** (...): See the assignment conditions on page 153		**[No]** (nO)
Pr4	**[4 preset PID ref.]** Check that **[2 preset PID ref.]** (Pr2) has been assigned before assigning this function. Identical to **[2 preset PID ref.]** (Pr2) page 212. If the assigned input or bit is at 0, the function is inactive. If the assigned input or bit is at 1, the function is active.		**[No]** (nO)
rP2 ★ (1)	**[Preset ref. PID 2]** This parameter can be accessed if **[2 preset PID ref.2]** (Pr2) is assigned.	**[Min PID reference]** (PIP1) to **[Max PID reference]** (PIP2) (2)	300
rP3 ★ (1)	**[Preset ref. PID 3]** This parameter can be accessed if **[3 preset PID ref.]** (Pr3) is assigned.	**[Min PID reference]** (PIP1) to **[Max PID reference]** (PIP2) (2)	600
rP4 ★ (1)	**[Preset ref. PID 4]** This parameter can be accessed if **[4 preset PID ref.]** (Pr4) is assigned.	**[Min PID reference]** (PIP1) to **[Max PID reference]** (PIP2) (2)	900

(1) The parameter can also be accessed in the **[SETTINGS]** (SET-) menu.

(2) If a graphic display terminal is not in use, values greater than 9,999 will be displayed on the 4-digit display with a period mark after the thousand digit, for example, 15.65 for 15,650.

★ These parameters only appear if the corresponding function has been selected in another menu. When the parameters can also be accessed and adjusted from within the configuration menu for the corresponding function, their description is detailed in these menus, on the pages indicated, to aid programming.

Parameter that can be modified during operation or when stopped.