

HN-DPC Digital Proportional Controller

Features

- Precision**
Digital microprocessor
- Simple Setup**
Digital display and buttons
- Full Function**
Adjustable input signal and output current
- Safety**
Short, open circuit protection with error code

Technical Data

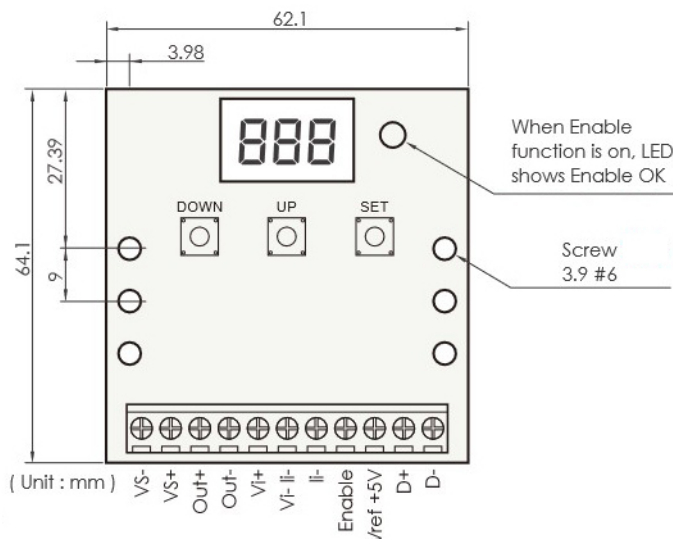
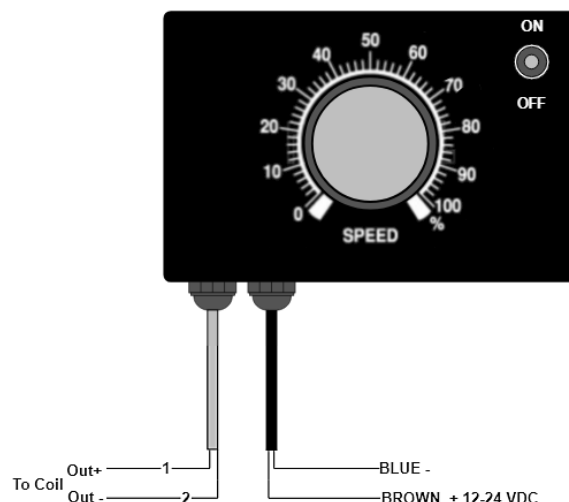
Operating Voltage:	12-24v DC
Voltage Tolerance:	10%
Input Signal Options:	0-5v, 0-10v, 4-20mA
Output Current:	2.1amp max

Dither Frequency:	70-350Hz
Ramp Up and Down:	0.1-5.0s
Reference Voltage:	5v (max current 5mA)
Operating Conditions:	-10 to 60°C

Connections & Dimensions

1	VS-	Power-
2	VS+	Power+
3	Out+	Coil+
4	Out-	Coil-
5	Vi+	Input voltage signal
6	Vi- li-	Signal ground
7	li-	Input current signal
8	Enable	Enable *
9	Vref +5v	+5v reference voltage
10	D+	RS-485-A (optional)
11	D-	RS-485-B (optional)

* Default off. Ground this pin to enable controller when PEA function is on.



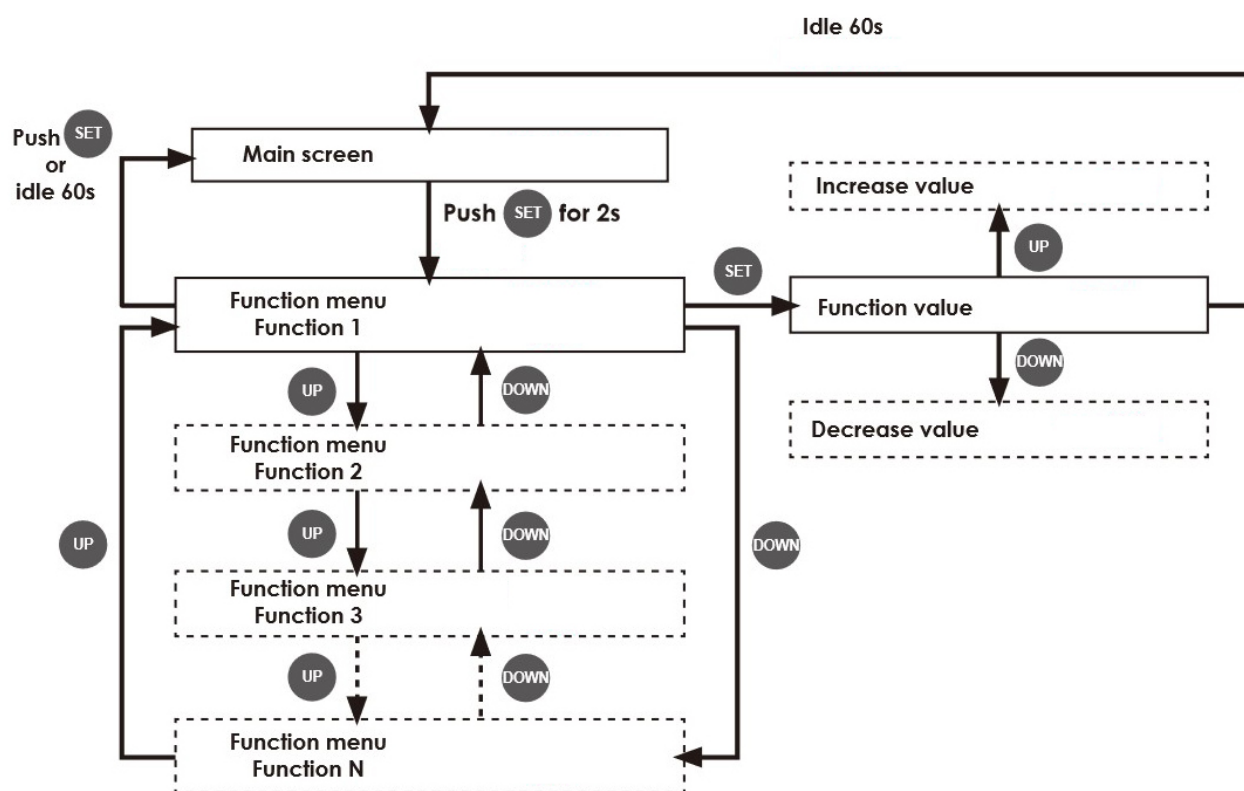
WARNING!

- Install the controller and coil only when the power is off.
- According to European Standards EN-982 the electrical output signal of the controller (e.g. reference voltage) must not be directly used to activate safety functions, like to switch-ON/OFF the machine's safety components.

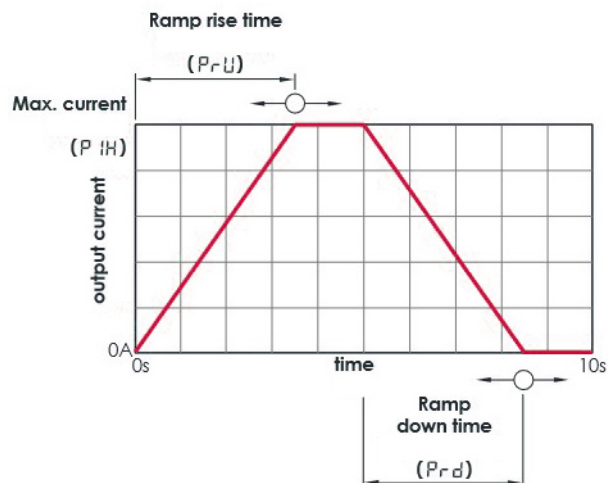
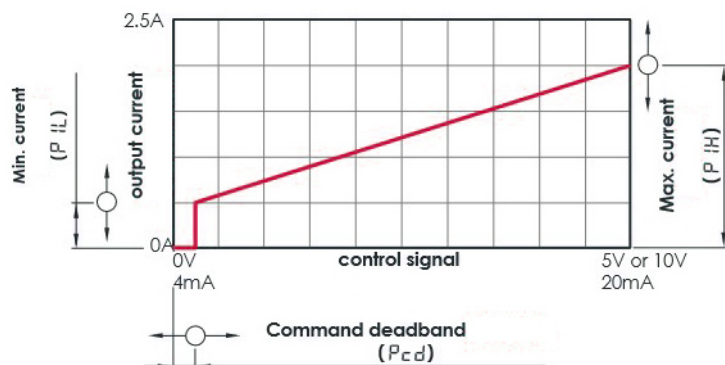
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Setup

1. At main screen, push **SET** button for 2 seconds and open function menu.
2. At function menu, push **UP** and **DOWN** to select function.
3. Push **SET** button to open function valve and push **UP** and **DOWN** to adjust it.
4. After adjustment, push **SET** button to setup function value and return to function menu.
5. Return to main screen by pushing **SET** button for 2 seconds manually or idling for 60 seconds.
6. Save setup: select **PSR** function and adjust its value to "5".
(If not saved all the function values will be reset after reboot.)
7. Default setup: select **PRF** function and adjust its value to "5".



Function Chart



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Functions Table

No.	Function	Display	Default Value	Adjustment Range	Unit	Description
1	Max. output current	P IH	1.00	0.20-2.10	A	adj. unit 0.01A
2	Min. output current	P IL	0.00	0.00-1.00	A	adj. unit 0.01A
3	Ramp up time	PrU	0.00	0.1-5.0	s	adj. unit 0.1s
4	Ramp down time	Prd	0.00	0.1-5.0	s	adj. unit 0.1s
5	Enable	PER	0	0-1		0: function off 1: function on, ground the ENABLE pin to enable controller
6	Input signal type	PR I	10	10/5/240		10: 0-10v ; 5: 0-5v ; 420: 4-20mA
7	Dither frequency	PdF	140	70-350	Hz	adj. unit 10Hz
8	Command deadband	Pcd	2	0-5	%	adj. unit 1%
9	Display type	PdS	0	0-1		0: output current (A) 1: input instruction (v or mA)
10	Save setup	PSR	0	0-5		When the value=5, save the parameters instruction
11	Default setup	Prf	0	0-5		When the value=5, restore factory setting
12	Clear error code	PcL	0	0-5		When the value=5, delete the error code of current overload

Error Code

No.	Function	Description
E 10	4-20mA signal open	Controller will detect troubleshooting and clear the error code automatically.
E 11	4-20mA signal overload	
E30	Coil open	
E31	Coil short	After troubleshooting it is necessary to adjust function PcL or reboot to clear the error code.