Catalogue MSG11-3500/UK **Characteristics / Ordering Code**

E-Module for Proportional Valves Series PWDXXA-40*

Parker electronic modules PWDXXA-40* for rail mounting are compact, easy to install and provide time-saving wiring by disconnectable terminals. The digital design of the circuit results in good accuracy and optimal adaption for proportional directional control valves with position sensor by a comfortable interface program.

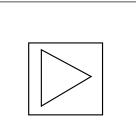
Features

The described electronic unit combines all necessary functions for the optimal operation of proportional directional control valves with position transducer or valves in closed loop systems. The most important features are:

- Digital circuit design
- Parameterizable position control of valve spool ٠
- Constant current control
- Differential input stage with different signal options ٠
- Monitor output for spool stroke
- Four-quadrant ramp function ٠
- Enable input for solenoid driver
- Status indicator ٠
- Parametering by serial USB interface
- Connection by disconnectable terminals •
- In combination with valves without spool feedback
 - Pressure control with proportional pressure valve and pressure sensor
 - Position control with proportional DC valve and actuator position transducer
- Optional technology function "linearization"
- Comfortable PC user software, free of charge: www.parker.com/isde - see "Support", or directly at www.parker.com/propxd.









Ordering code



valves

Electronic module proportional



Closed loop control universal

ХΧ

Α	

Amplifier min/max adjustment accel/decel ramps command input

40

	ser	ies	
,	Design		
—		1	
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Technology

function

(not required for ordering)

 Code	Function
0	Standard
1	Linearization
I	option

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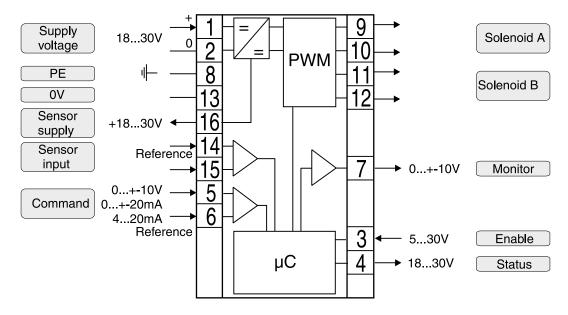


Technical data

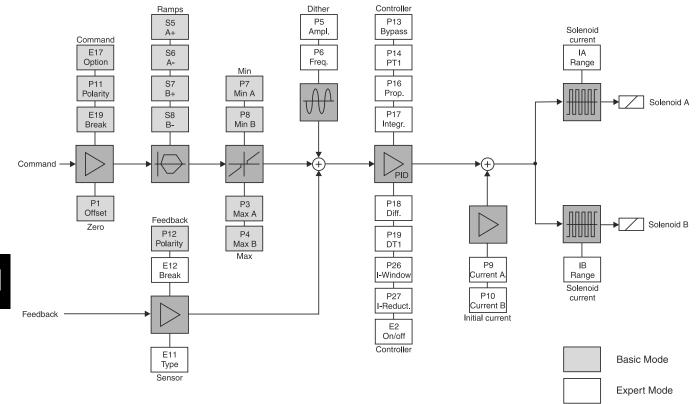
General				
Model		Module package for snap-on mounting on EN 50022 rail		
Package material		Polycarbonate		
Inflammability class		V0 acc. UL 94		
Installation position		unrestricted		
Ambient temperature range	[°C]	-20+60		
Protection class		IP 20 acc. EN 60529		
MTTF _D value	years]	150		
Weight	[g]	160		
Electrical				
Duty ratio	[%]	100		
Supply voltage	[VDC]	1830, ripple < 5 % eff., surge free		
Switch-on current typ.	[A]	22 for 0.2 ms		
Current consumption max.	[A]	2.0		
Pre-fusing	[A]	2.5, medium lag		
[mA] [mA]		+10010, ripple <0.01 % eff., surge free, Ri = 100 kOhm +20020, ripple <0.01 % eff., surge free, Ri = 200 Ohm 41220, ripple <0.01 % eff., surge free, Ri = 200 Ohm <3.6 mA = solenoid output off, >3.8 mA = solenoid output on (acc. NAMUR NE43)		
Input signal resolution	[%]	0.025		
		30 for terminals 5 and 6 against PE (terminal 8) 11 for terminals 5 and 6 against 0V (terminal 2)		
Sensor supply [V]		1830 (Us), max. current <100 mA		
Enable signal	[V]	02.5: Off / 530: On / Ri = 100 kOhm		
Status signal [V]		00.5: Off / Us: On / rated max. 15 mA		
Monitor signal	[V]	+10010, rated max. 5 mA, signal resolution 0.4 %		
Adjustment ranges Min Max Ramp Zero offset Current Initial current	[%] [%] [%] [A] [%]	032.5 +100100 1.3 / 2.7 / 3.5		
Interface		USB type B		
EMC		EN IEC 61000-6-2, EN IEC 61000-6-4		
Connection		Screw terminals 0.22.5 mm ² , disconnectable		
•	[mm²] [mm²]	1.5 overall braid shield for supply voltage and solenoids (AWG16)0.5 overall braid shield for sensor and signal (AWG20)		
Cable length	[m]	50		
Options				
Technology function (Code1	Software adjustable transfer function with 10 compensation points for linearization of valve behaviour		



Block diagram



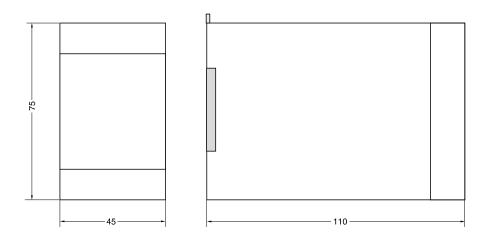
Signal flow diagram



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Dimensions



ProPxD interface program

The ProPxD software permits comfortable parameter setting for the module electronics. Via the clearly arranged entry mask the parameters can be monitored and modified. Storage of complete parameter sets is possible as well as printout or record as a text file for further documentation. Stored parameter sets may be loaded anytime and transmitted to other valves. Inside the electronics a nonvolatile memory stores the data with the option for recalling or modification.

The PC software can be downloaded free of charge at www.parker.com/propxd.

Features

- Comfortable editing of all parameters
- · Depiction and documentation of parameter sets
- Storage and loading of optimized parameter adjustments
- Executable with all actual Windows[®] operating systems from Windows[®] XP upwards
- Plain communication between PC and electronics via USB interface

	PWD;	x Param.				
PC settings		PC	r		module	module settings
ype	No.	Value	Description		Module _	Type
P₩DxxA-400- 🐣	la	2	International Content of Content	1=3.5A 2=2.7A 3=1.8A 4=1.3A]		no modu
esian series	lb	2		1=3.5A 2=2.7A 3=1.8A 4=1.3A]		Design series
11 and higher 🖑	P1	0.0	Zero Adjust [%]			2223
alve	P3	100.0	Max [%] A-channel			Marian
aive	P4	100.0	Max (%) B-channel			Version 2223
\$-	P5	0.0	Dither-Amplitude (
default	P6	0	Dither-Frequency [Valve
	P7	0.0	Min Current [%] A-0			
	P8	0.0	Min Current [%] B-channel			Channel "A" ????
	P9 P10	0.0	inital current A-channel [%]			
		0.0	inital current B-channel [%]			Channel "B"
	P11 P12	0	command signal 0=not invertied; 1=invertied Feedback value 0=not invertied; 1=invertied			????
		0	bypass gain [%]	elect Valve		200
	P13 P14	0.0				- Dacks
	P14	0.0	T-portion of PT1			
	P17	0.0	P-gain Choose a standard valve.			
	P18	0.0	D-gain	PWDXXA-400 default		
	P19	0.0	T-portion of DT1			
	P26	20.0	Window for I-gai	PWDXXA-400 default 17.	06.2003	receive all
put	P27	100.0	I-gain window re		_	modul >> PC
Range	\$5	0	ramp up [ms] A			send all
C 3,5 A = 1	S6	0	ramp down [ms]		-	PC >> modul
• 2.7 A = 2	87	0	ramp up [ms] B	1	1	F
C 1.3A=4	S8	0	ramp down [ms]	Exit	<u>o</u> k	send parameter

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