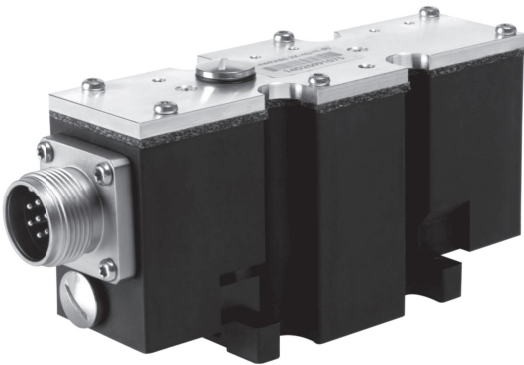


RT-3DREPE6-2X-40

Integrated proportional amplifier without
electrical position feedback, double- electromagnet
Design number 40 series
Power supply range: 19~35VDC
Command types: $\pm 10V$, 4~20mA(confirmed
before leaving the factory)
Types of control valves: 3DREPE6



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Features

- Application range Applicable to controlling 3DREPE6 series of proportional valves;
- USB interface: A built - in Micro USB interface enables easy connection to a computer for parameter configuration.;
- Host computer software: A wide range of parameter configurations can be carried out through the host computer software on the PC side Wide ;
- Voltage: Wide voltage input ranging from 19 to 35VDC.

Ordering Model

RT-3DREPE	6	-	-	2X	-	40	/	A1	-	00
01	02	03		04		05		06		07

01	RT-4WRAE	Integrated proportional amplifier,controlling3DREPE series of proportional valves.
02	6	Size 6
03	A	Single solenoid (Pressure reduction at Port A)
	B	Single solenoid (Pressure reduction at Port B)
	C	Double-solenoid (standard type)
04	2X	Proportional valve series number
05	40	The amplifier design number is of the 40 series.
06	A1	The commands are $\pm 10V$ (for double- electromagnet) and 0 - 10V (for single - electromagnet).
	F1	The command is 4 - 20mA.
07	00	The housing type features 4 mounting holes and has no USB opening (default type).
	01	The housing type features 4 mounting holes and has a USB opening.
	02	The housing form has 2 mounting holes and has no USB opening.

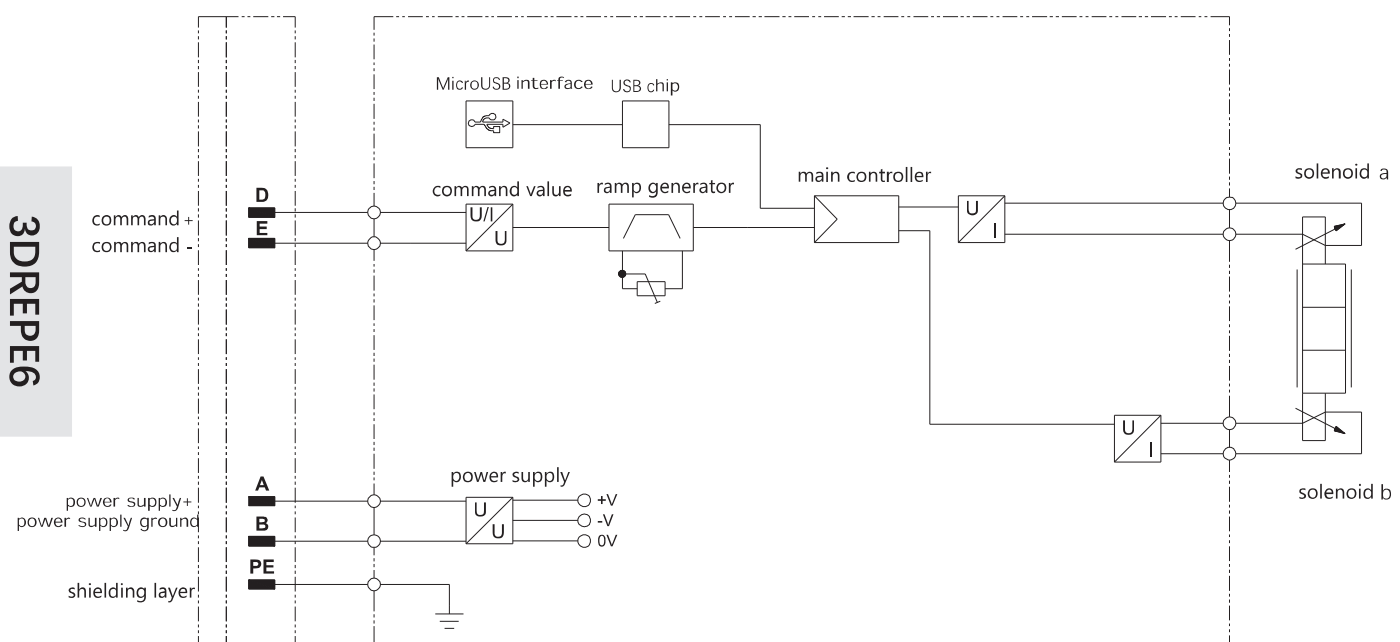
3DREPE6

Technical Data

Working Voltage	19~35 VDC (commonly 24VDC)
Maximum Power Consumption	< 45VA
No-load Current	≤100mA (24V)
Differential Signal Input	±10 V (or 0~10V) ,input impedance ≥100KΩ input impedance=100Ω (Specify before delivery, not switchable on site)
Resolution	≤1 ‰
Nonlinearity	≤1 ‰
Maximum Output Current	Size 6 : 2.8A
Ramp Time	0.01~5S (adjustable by potentiometer)
Electrical Connection	A seven-core plug that complies with DIN EN 175201-804
Communication Interface	MicroUSB
Communication Protocol	ModBus-RTU
Baud Rate	9600 Baud
PC Software	ACManager
Operating Temperature	-20~80℃
Storage Temperature	-20~85℃
Operating and Storage Humidity	0 %~90 %
IP Rating	IP65

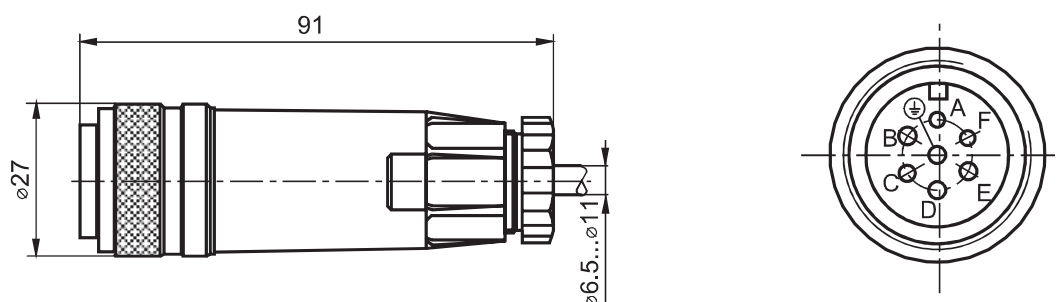
Principle Block Diagram

interface	Integrated proportional amplifier	Valve
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Terminal Definition

The plug complies with the standard DIN EN 175201-804 see the picture below). It needs to be ordered separately, and the order model is: RT - QXCT



	Plug	Type A1	Type F1
Power Supply Voltage	A	24VDC (19~35VDC) ; I _{max} =2A	
	B	0V	
	C	Not connected	
Differential Input	D	Set value $\pm$ 10V; R _e $\geq$ 100K Ω	Set value 4~20mA; R _e =100 Ω
	E	Reference potential of the set - point value	
	F	Not connected	
	PE	Internally connect to the valve body	

Set Value:

- A positive given input value (0 to +10V or 12 to 20mA) applied to D and E will make the valve output pressure at port A.
- A negative given input value (0 to 10V or 12 to 4mA) applied to D and E will make the valve output pressure at port B.
- For a single - electromagnet valve with the electromagnet installed on the B side (Type A), a positive given value of 0 to +10V (or 4 to 20mA) applied to D and E will make the valve output pressure at port A. For a single - electromagnet valve with the electromagnet installed on the A side (Type B), a positive given value of 0 to +10V (or 4 to 20mA) applied to D and E will make the valve output pressure at port B.

Note: For amplifiers with a 4 - 20mA command type, if the set value is less than 2mA, the amplifier will determine that the command line is broken. At this time, the output terminal of the amplifier will be powered off, and the valve spool will return to its original position through the spring.

Warning: Wiring the F and C pins is prohibited. ReboTech Company will not assume any liability for issues caused by wiring the F and C pins.

Parameter Table

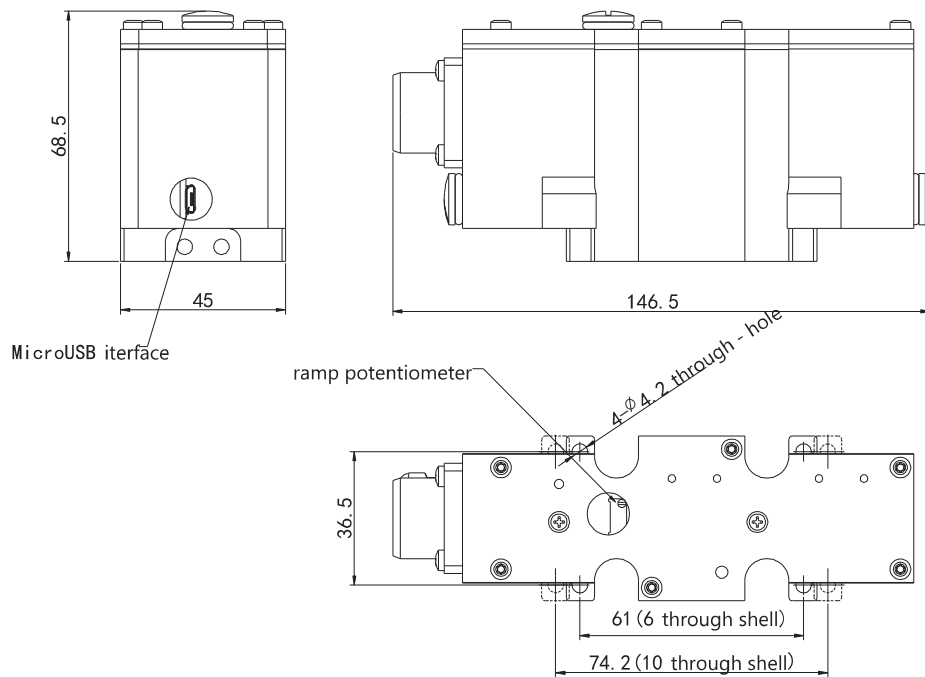
Factory-set Value					
Serial Number	Item		Value Range	Unit	Descriptions
1	Dither Amplitude	-	0~2000	mA	Reasonable setting of this value can reduce the spool jitter and improve the spool response speed.
2	a Minimum Current	-	0~2000	mA	Minimum drive current of electromagnet A (Not Available for A-type Amplifiers)
3	b Minimum Current	-	0~2000	mA	Minimum drive current of electromagnet B (Not Available for B-type Amplifiers)
4	Dead-zone Setting	500	0~1000	Type A1: mV Type F1: μ A	recommended to maintain the factory-set values.
5	a Maximum Current	-	0~3200	mA	Maximum drive current of electromagnet A (Not Available for A-type Amplifiers)
6	b Maximum Current	-	0~3200	mA	Maximum drive current of electromagnet B (Not Available for B-type Amplifiers)
7	Command Zero offset	0	-30000~30000	Type A1: mV Type F1: μ A	Used for zero-position offset compensation.

Note: There is a certain deviation between the maximum current setting value and the actual current value.

This is because the dither amplitude value affects the actual current value, causing the actual current value to be approximately 100 - 200mA lower than the maximum current setting value.

The factory - set values vary according to different valve types. Please refer to the actual shipped products.

Overall Dimensions (Unit: mm)



Name	Description
MicroUSB	Connect the device to a PC using a USB (Type A) to MicroUSB cable, and you can configure relevant parameters in the host - computer software.
Ramp Potentiometer	When rotated counter - clockwise, the ramp time shortens. Conversely, when rotated clockwise, the ramp time lengthens, with a maximum adjustment of up to 5 seconds. The factory - set value is 0.01 seconds.

Precautions

- The MicroUSB interface is located inside the housing. For the amplifier with housing type 01 (which has a USB opening on the housing), you can unscrew the plug to make the connection. As for other amplifiers without a USB opening, you need to remove the six screws on the aluminum panel and take out the amplifier to access the MicroUSB interface for connection.
- The openings on the housing are sealed with PG7 threaded plugs. During use, unscrew the plugs counter - clockwise. After use, please screw the threaded plugs back in clockwise to ensure that the amplifier restores its IP65 protection rating.
- Restore the IP65 protection level of the amplifier!
- The amplifier can only be plugged in or unplugged when the power is off!
- When measuring the amplifier, instruments with $R_i > 100k\Omega$ must be used!
- The distance from antennas, wireless power sources and radar equipment must be greater than 1m.
- Don't lay the solenoid and the command cables near the power cables!