

TMRPD

Amplifier card



Index	Page No
Introduction	02
Ordering code	02
Pin Assignment	02
Technical data	03
Block circuit diagram	04
Display/setting elements	05
• Unit Dimensions	05
Additional information	06

THM HYDRAULICS



Introduction

- Suitable for the control of variable piston pump (type A4VSO and A4VSG)
- Powerful 32-bit processor
- Command 0...10 V
- 2 PWM output ports
- Enable
- Fault diagnosis function, power supply voltage, coil short circuit, open circuit or other abnormal conditions prompted
- 35mm rail mounting or screw holes

Ordering code

TMRPD - 5035M

For variable piston pump (type A4VSO and A4VSG)

Pin Assignment

	Terminal	Description	
1	U _B	OAVIDO.	
2	0V	24VDC	
3	ENA	Enable: $0V < U < 1 \ V$ g reen lights on; $1V < U < U_{\mbox{\tiny B}}$, green lights flash	
4	OUT	Terminal 10	
5	IN+	Command: 0 +10 V	
6	IN –		
7	+10V	+10V output, supply for potentiometer	
8	S 1	Displacement sensor 1	
9	\$2	Displacement sensor 21 (丄)	
10	Sgnd	Displacement sensor ⊥ 1 (2)	
11	N.C.	Reserved	
12	N.C.	Reserved	
13	b+	0.1	
14	b-	Solenoid b	
15	a-	Onlawaid a	
16	a+	Solenoid a	

Note:

1 = connection for clockwise rotation pump

() = connection for counterclockwise rotation pump

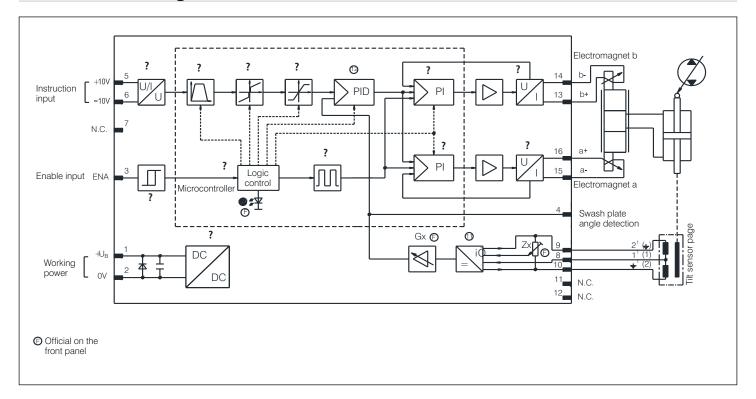


Technical data

Dimension		100 × 23 × 114 mm
Operating voltage	U _B	24 VDC
Upper limit value	$U_B(t)_{max}$	
Lower limit value	U _B (t) min	32 V
		19 V
Non -current consumption	Icmax	60 mA
Inputs:		
		0 +10 V
Ui		100 k Ω
Re		< 5mV
UE		Enable:
		0V < U E < 1 V, green lights on, working;
		$1V < U E < U_{B}$, green lights flash, it doesn't
		work
Output:		
Imax		2.5 A
Power supply for sensor		
Voltage	Ua	5 VAC , 2.5KHz , $I_{\text{max}} = 30 \text{ mA}$
Inclination detection	Ux	0+10 V, Terminal 10 for reference
Connection		35mm rail mounting or screw holes
Permissible operating temperature range		-20 ∼ 70°C
Storage temperature range		-25 ~ 85°C
Weight	m	0.30 kg



Block circuit diagram



- ① U/U converter
- 2 Logic control ink
- 3 Slope adjustment
- **5** Output limits
- [®] PI current, regulation
- Output stage
- ® Switching power supply
- 10 Level converter
- ① Modem
- Position controller worker 1pyfi

Swashplate angle sensor wiring

1 = clockwise rotation pump connection counterclockwise rotation pump connection



Display/ setting elements

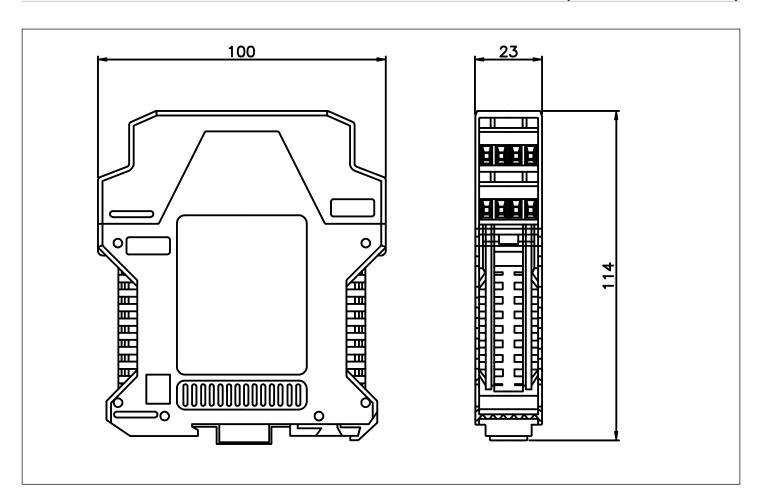
LED

"" condition and meaning

No	"@"condition	meaning
1	Green on	Normal
2	Off	Without power supply or under -voltage
3	Red on	Cable break of tilt sensor
4	Green flash	Without enable

Unit Dimensions

(Dimensions in mm)



^{16 | 15 | 14 | 13} 12 | 11 | 10 | 9 **● THM**⊗ ⓒ Zx ⊚ Gx

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8 | 7 | 6 | 5

4 | 3 | 2 | 1

[&]quot;Zx" - zero adjustment of tilt sensor

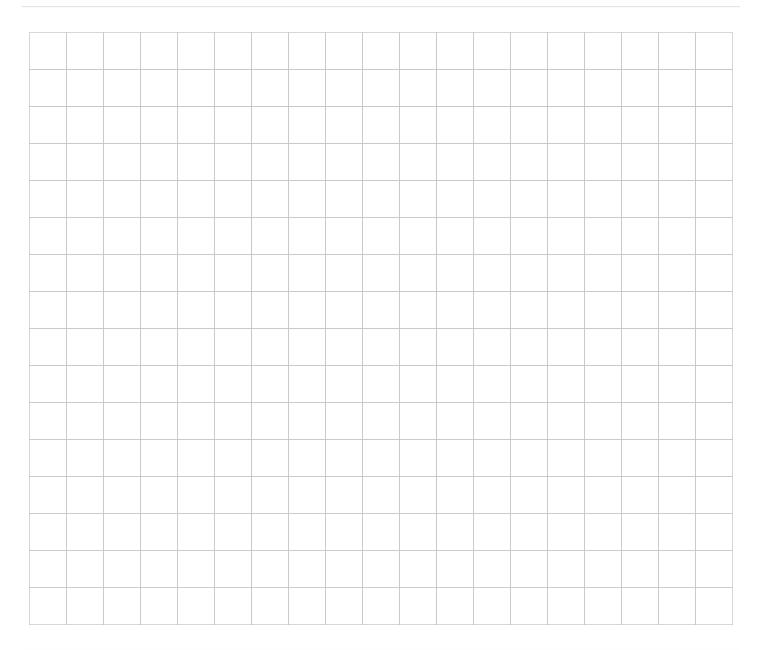
[&]quot;Gx" - gain adjustment of tilt sensor



Project/ maintenance instructions/ additional information

- The amplifier card may only be unplugged or plugged in when switched off!
- Do not use plugs with free wheel diodes or LED displays when connecting the solenoids!
- Measurements at the card may only be carried out with instruments Ri > 100 k!
- For switching the command values, use relays with gold contacts (small voltages, small currents)!
- When using external control, the control voltage may have a residual ripple factor of a maximum of 10%!
- The distance to aerial, radio sources and radar equipment must be at least 1 m!
- Do not lay solenoid and signal lines near power cables!
- Always shield command value cables; connect the shield to 0V operating voltage on the card s ide, and leave the other side open (danger of earth loops)!
 - Recommendation: Also shield solenoid cables!
- Because of the loading current of the smoothing capacitor on the card, pilot fuses must be of the slow-blowing type!
- Warning: When using the differential input, both inputs must always be switched on or off simultaneously!
- Electrical signals generated via control electronics must not be used for switching safety-relevant machine functions. (See also the European standard "Safety requirements for fluid power systems and components Hydraulics", BS EN 982:1996)





The specified data is for product description purposes only and may not be deemed to be guaranteed unless expressly confirmed in the contract.



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