

# Pump Control PSR400 or PSR300 for Axial Piston Pumps

The perfect replacement solution for the discontinued control units VT-VPCD and VT-12350 of the Bosch-Rexroth company



PSR400



PSR300

# Pump Control

For years, TRsystems - System Division Automation - has been successfully working on and with an alternative solution for the pump control of the axial piston pumps A2V and A4VSO of the manufacturer Bosch-Rexroth. Our control card PSR400 and interface card PSR300 replace the electronic control unit VT-VPCD or VT-12350.

Both solutions from TRsystems connect the press control with the sensors / actuators of the pump. They digitally contain the necessary setting options to scale the signals. The operation and data storage of the configuration is done digitally via an Ethernet interface and an operating program. They contain the necessary power amplifiers to operate the control valve and inputs to read in the signals from the swing angle, pressure and control valve.

**The difference in the two modules is that the control algorithm in the PSR400 for swivel angle, power and pressure control is part of the control card and in the PSR300 interface card belongs to the higher-level press control.**

## Control card PSR400

With the PSR400, we now also offer a solution for direct replacement of the electronic control unit.

|   | Axial piston pump A2V                               | Axial piston pump A4VSO                             |
|---|---|---|
| <b>TRS Controller</b>                               | PSR400  | PSR400  |
| <b>Pump</b>   | remains   | remains   |
| <b>Linkage for swivel angle transmission</b>        | remains   | remains   |
| <b>LVDT type swivel angle sensor</b>                | remains   | remains   |
| <b>Pressure transducer if present / not present</b> | remains / will be installed additionally            | remains / will be installed additionally            |
| <b>Proportional valve</b>                           | _ remains when 4WRE...<br>_ is replaced when STW... | _ remains when 4WRE...<br>_ is replaced when STW... |
| <b>Configuration digital with parameter file</b>    | yes   | yes   |
| <b>Modification of the existing control</b>         | no  | no  |
| <b>Pump control</b>                                 | 1× per pump integrated in control card              | 1× per pump integrated in control card              |

## Your advantages with the PSR400

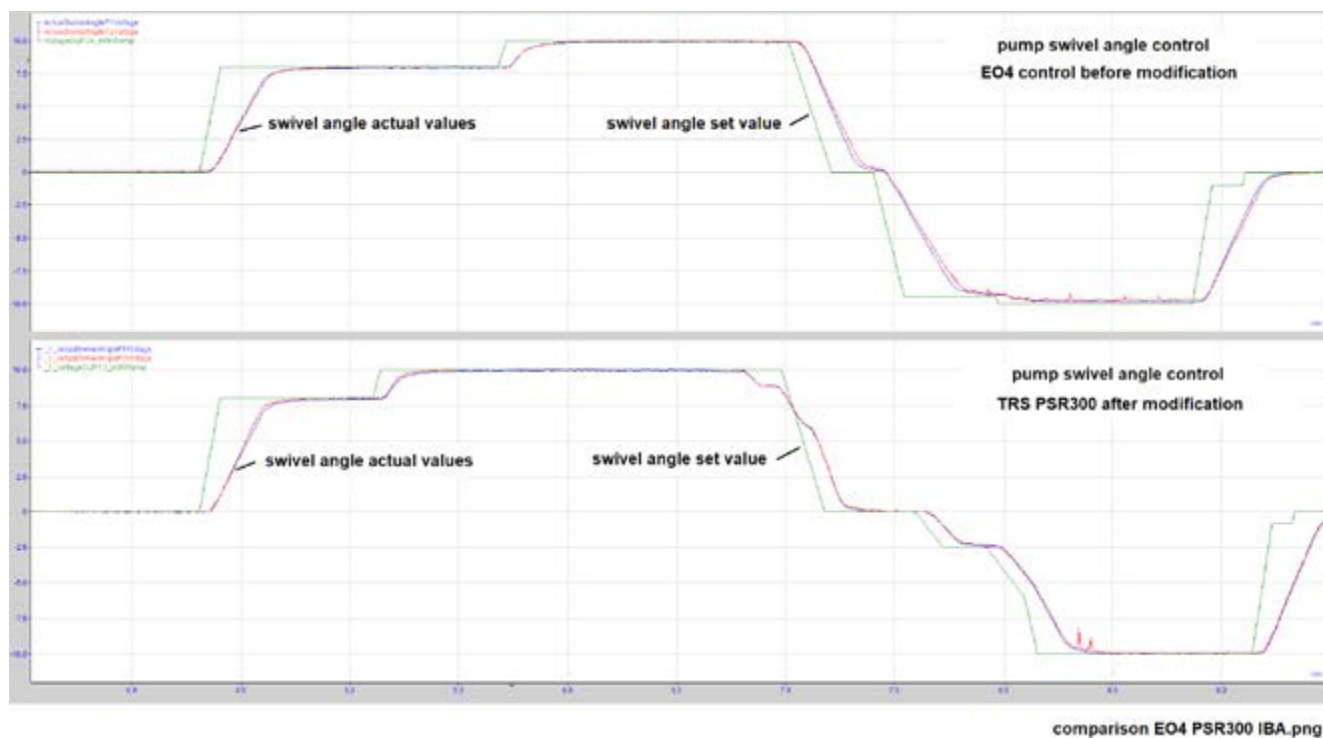
- \_ Short downtimes, due to a low conversion effort
- \_ Your pumps remain
- \_ Type 4WRE 6 / 4WRE 10 control valves are retained
- \_ Pressure transducers remain or are supplemented
- \_ Only one pressure transducer required for multiple pump arrangement
- \_ Linkage and swivel angle sensors remain intact, even over oil
- \_ Your control and the operating concept remain the same
- \_ Display - digital display of actual values, setpoints and error messages

## Interface card PSR300

We have successfully used the PSR300 for control retrofits on numerous hydraulic presses from Müller Weingarten.

|  |   |   |
|--|---|---|
|  | Axial piston pump A2V1000                         | A4VSO axial piston pump                           |
| TRS Controller                               | PSR300  | PSR300  |
| Pump   | remains   | remains   |
| Linkage for swivel angle transmission        | remains   | remains   |
| LVDT type swivel angle sensor                | remains   | remains   |
| Pressure transducer if present / not present | remains / will be installed additionally          | remains / will be installed additionally          |
| Proportional valve                           | _remains when 4WRE...<br>_is replaced when STW... | _remains when 4WRE...<br>_is replaced when STW... |
| Configuration digital with parameter file    | yes   | yes   |
| Modification of the existing control         | new TR control                                    | new TR control                                    |
| Pump control                                 | integrated in new TR control                      | integrated in new TR control                      |

## Comparison before and after the conversion with the PSR300:



## References - TRsystems Retrofit at a Glance

**Hydraulic presses - single and multi-acting drawing presses, tryout presses, multicurve presses, transfer presses, press lines and cutting lines:**

- \_ Müller Weingarten ZE400 / 630 / 800 / 1000 / 1200 / ZE1250 / 1600 / 2000 / 2100 / 2500
- \_ Müller Weingarten BZE1000 / 1600
- \_ Müller Weingarten VK1800
- \_ Dieffenbacher DXZ1000 / DT II 4000
- \_ SMG 2300t
- \_ ONA 1200t
- \_ Erfurt PYE 1000

**Mechanical presses with coil line / blank loader and transfer:**

- \_ Müller Weingarten HU500
- \_ Müller Weingarten HUQ400 / 630 / 800 / 1000 / 1100 / 1600
- \_ Müller Weingarten HQR630
- \_ Müller Weingarten S2000
- \_ Arisa 800t / 1600t / 2000t
- \_ Raster-Zeulenroda 315t
- \_ Eitel-Blättner GZ800
- \_ Simpac DTE4-1300

**Servo presses with coil line and transfer:**

- \_ Simpac MX2-1000

**Automation systems such as transfer systems, feeders, robots, blank loaders, turners, orientation stations, speedbar modules, stacking systems, coil lines**

the company Müller Weingarten, KOHLER Maschinenbau, SCHLEIFSTEIN Maschinentechnik, Amtec, Horstkemper Maschinenbau, Hagel-Automation, Kemmerich, Strothmann, Gillet, ...

### TRsystems GmbH

BU TR-Automation  
Eglishalde 16  
D - 78647 Trossingen

Tel. +49 7425 228-0  
Fax +49 7425 228-666

info@trsystems.de

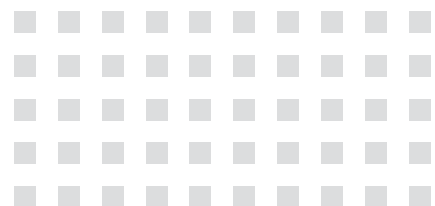
[www.tr-automation.de](http://www.tr-automation.de)

[www.tra-pumpenregelung.de](http://www.tra-pumpenregelung.de)

**We will gladly advise you**

Andreas Thanassakis  
+49 (7425) 228 210  
andreas.thanassakis@tr-electronic.de

Dr. Michael Richter  
+49 (7425) 228 674  
michael.richter@trsystems.de



Last update: 7/2022

68105135 · TRS-V-PR-GB-0016-00

Subject to changes in technology and design.