

## Data Sheet

**MP1T 028/032****Axial Piston Tandem Pumps**

For more than 40 years, Danfoss has been developing state-of-the-art components and systems for mobile machinery used in off-highway operations around the world. We have become a preferred supplier by offering the best of what really matters: The hardware inside your vehicle application.

Our portfolio has been expanded to a new product line: 28/32 cm<sup>3</sup> size Axial piston tandem pumps. Using the proven rotating groups from MP1 products, the MP1 axial piston tandem pump delivers a high rotating efficiency, high reliability, and the best-in-class short pump length.

All MP1 control and sensor options are PLUS+1<sup>®</sup> Compliant. PLUS+1<sup>®</sup> allows you to rapidly develop and customize electronic machine control. It opens up the future by combining machine controls and diagnostics in an integrated operating network.

**Features****Designed for Quality and Reliability**

- Single piece housing to minimize leaks
- Technologically advanced kit and servo system
- Predictable, low friction swashplate bearing for precise machine control
- Integrated auxiliary pad
- Robust design for severe machine condition

**Machine Integration Benefits**

- Industry leading pump length
- One clean side for easier machine integration
- Standard connection interfaces
- High strength mounting flange
- Opposite sided system ports
- Auxiliary pad options

**Greater Total Efficiency**

- High pump efficiency
- Lower control pressure for less power consumption

**Control Options**

- Electro-hydraulic control options include
  - Electrical Displacement Control (EDC)
  - Forward-Neutral-Reverse (FNR)
  - Non-Feedback Proportional Electric (NFPE)
- Manual Displacement Control (MDC)
- Non-Feedback Proportional Hydraulic (NFPH)
- Common control across entire family

**Expanded Functionality**

- PLUS+1<sup>®</sup> Compliant control, angle sensor and speed sensor options
- Easy integration with Telematics
- Control Cut Off (CCO) valve with integral logic (brake) port
- Integrated Flushing valve available
- Full complement of diagnostic ports including case pressure

Comprehensive technical literature is online at [www.danfoss.com](http://www.danfoss.com)

## MP1T 028/032 Tandem Pumps

## Specifications

### Physical Properties

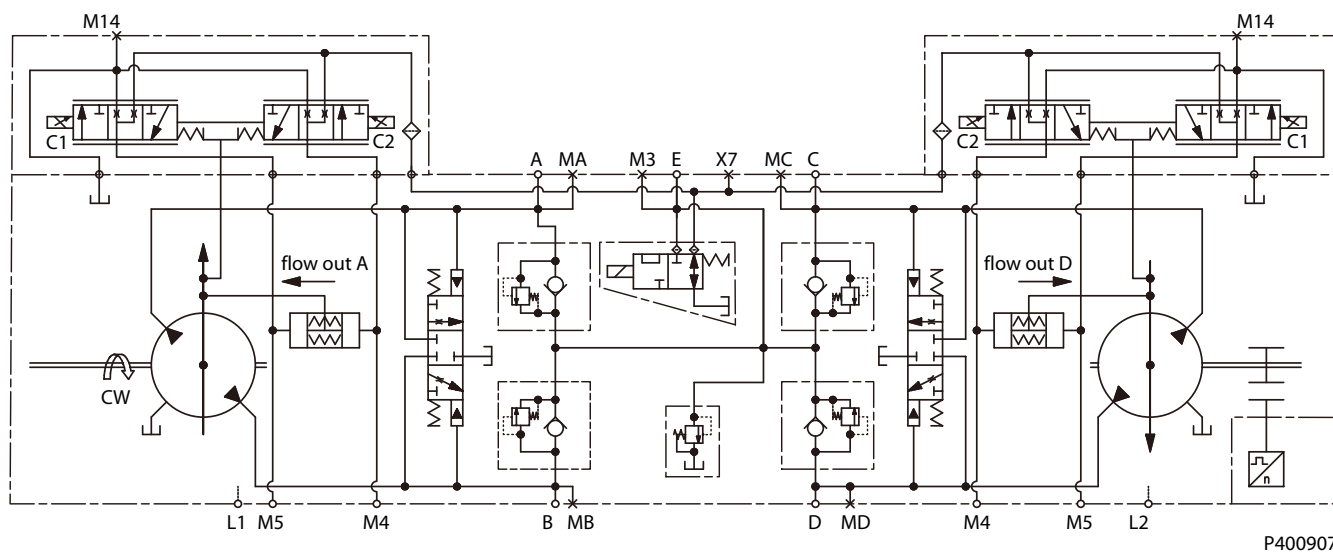
Features	Unit	28	32
Displacement	cm <sup>3</sup> [in <sup>3</sup> ]	28.0 [1.71]	31.8 [1.94]
Weight (dry)	kg [lb]	58.5 [129.0]	

### Operating Parameters

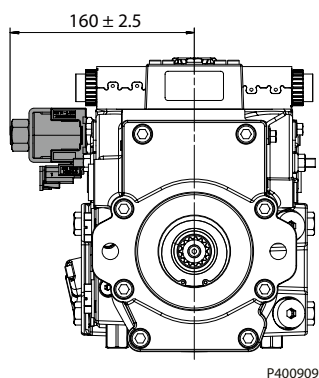
Parameter	Measure	Unit	28/32
Input Speed	Minimum	min <sup>-1</sup>	500
	Rated		3400
	Maximum		4000
System pressure	Maximum working*	bar	350
	Maximum pressure		380
	Maximum low loop		10
Case pressure	Rated	bar	3
	Maximum		5

\* Applied pressures above maximum working pressure requires Danfoss application approval.

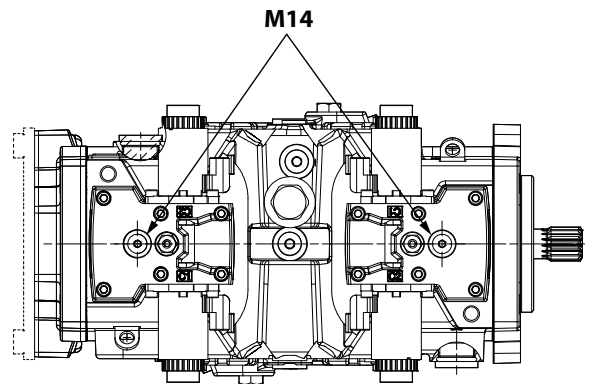
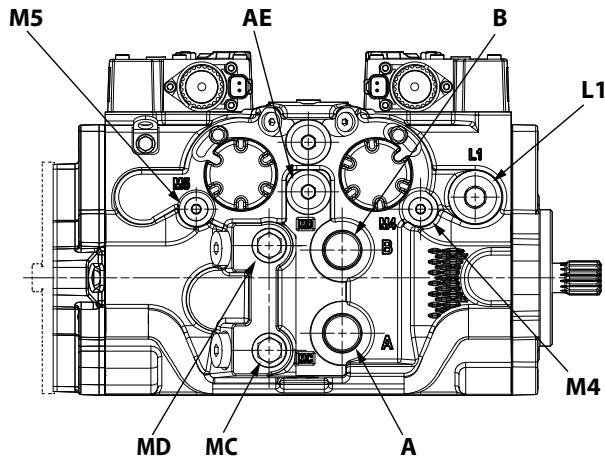
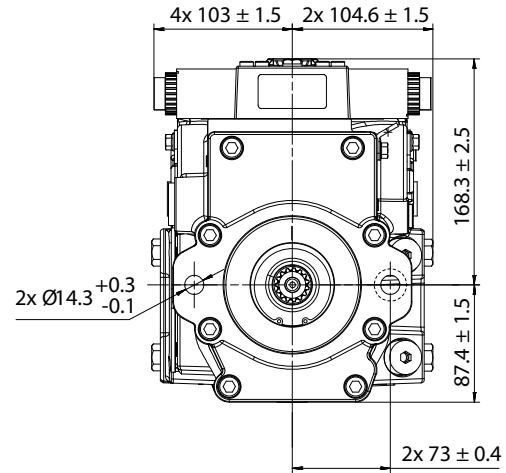
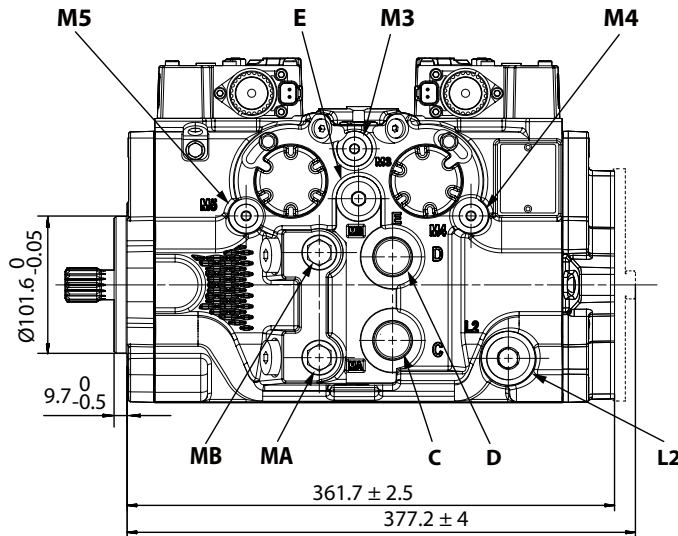
### Schematic



### With CCO (Control Cut Off) valve



## Dimensions and Ports



P400908

	Description	Port
<b>A/B/C/D</b>	System port	1 1/16-12
<b>MA/MB/MC/MD</b>	System gauge ports	9/16-18
<b>E</b>	Charge filtration inlet port	7/8-14
<b>AE</b>	Alternative charge filtration inlet port	7/8-14
<b>L1/L2</b>	Case drain port	1 1/16-12
<b>M3</b>	Charge gauge port	9/16-18
<b>M4/M5</b>	Servo gauge ports	9/16-18
<b>M14</b>	Case gauge port (Air bleed)	7/16-20