WOG1-125

Size 125 mm – ultra-compact for maximum underfloor integration. Omnidirectional wheel/steering drive.

Ultra-flat wheel and steering drive for highly integrated underfloor AGVs with maximum installation space restrictions.

Applications

This size is optimized for extremely flat vehicle concepts where the installation space under the load is severely limited.

The wheel and steering drives are controlled via external Dual-Axis Motor Controllers or customer-provided controllers, creating a completely freely configurable safety and control architecture. The mechanical and electrical integration is designed to be as flexible as possible.



Features & Benefits

- **Extremely low overall height** for the flattest vehicle concepts
- **Optimized for underfloor AGVs** with minimal ground clearance
- **Maximum design freedom** in vehicle design
- **Integration into customer-specific PLC and safety architectures**
- **Freely selectable encoder integration** for safety concepts
- **Ideal for light to medium load requirements**
- **High design freedom** despite the compact design

Technical data

		WOG1-125	
Drive		Steering drive	Wheel drive
Rated voltage	VDC	48	48
Rated power	W	80	197.1
Speed	°/s / m/s	0 - 405	0 - 1.96
Rated torque	Nm	5.5	4.52
Maximum torque	Nm	45.0	12.5
Rated current	Arms	4.4	8.7
Maximum current	Arms	33.2	20.4

		Steering drive	Wheel drive
Wheel load	kg	-	150
Wheel diameter	mm	-	90
Gear steering		worm gearbox	
Gear driving			Planetary gearbox
Coating			Vulkollan 95° Shore A
Temperature sensor		PTC	
Encoder/feedback		magnetic encoder	
Signals		A,/A, B,/B I,/I, PWM,/PWM	
Resolution	Counts/rev	4096 / 12 bits	
Voltage	VDC	5	
Holding brake		-	Spring-applied brake
Braking torque	Nm	-	0.5
Voltage	VDC	-	24
Inductive steering angle position sensors		3 pieces	-
Redundant steering angle sensors		Sick	-
Ambient temperature	°C	0 … 40	
Relative humidity	%	< 80	
Noise level	dB	< 60 depending on the application	
Protection class		IP54	

Motor cable connections

Steering drive			Wheel drive		
Signal description	**Core color (open ends)**	**Plug / Connection**	**Description**	**Core color (open ends)**	**Plug / Connection**
U	black 1	Round cable lug M4	Motor phase U	red	M4 ring cable lug
V	black 2	Round cable lug M4	Motor phase V	white	
W	black 3	Round cable lug M4	Motor phase W	black	
PE	yellow-green	2-pole terminal	-	-	

Control line connections

Steering drive			Wheel drive		
Signal description	**Core color (open ends)**	**Plug / Connection**	**Description**	**Core color (open ends)**	**Plug / Connection**
GND	green-brown	JST connector 10-pin / 2 rows	GND	green-brown	JST connector 10-pin / 2 rows
5V	green-white		5V	green-white	
/I	violet		/I	violet	
I	yellow		I	yellow	
/B	pink		/B	pink	
B	grey		B	grey	
/A	black		/A	black	
A	red		A	red	
/PWM	green		/PWM	green	
PWM	brown		PWM	brown	
PTC	blue	pluggable 6-pin screw-terminal or spring-clamp connector	PTC	blue	pluggable 6-pin screw-terminal or spring-clamp connector
PTC	white		PTC	white	
-	-	-	BR+	black 1	
-	-	-	BR-	black 2	

Dimensions





