

OS10 serie

Microstepping drivers 20V...240V 0.8Arms...10Arms for two phase stepper motors

High reliability and performance, compact size and low cost are the main characteristics of the drivers of the OS10 series.

Realized in open design they can be easily integrated inside equipments and cabinet. The driver is mountable through 4 holes, suitable for M3 screws, placed on the corners of the board.

The connection to the motor, with the logical signals and to the power supply is through three different terminal blocks, each one of them is numbered and suitable for 2.5mm² wire size.

Using the last electronic components generation and the SMT technology it has been possible to obtain in a small space high power and advanced performances.

The many setting options available allow to use the drivers with any kind of motor and application. The phase motor current can be tuned fine in a wide range of value as the step resolution, the current reduction, etc.

Each logic signal can be set independently from the other to PNP or NPN logic, each input can also be driven using line-driver technology.

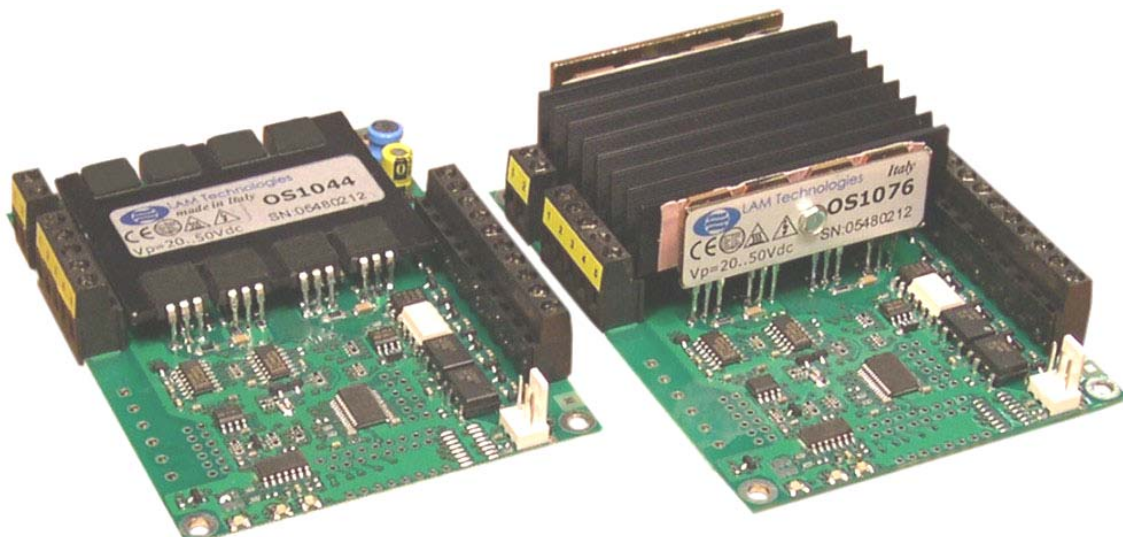
The driver is fully protected to preserve its integrity from the most common problems.

The diagnostics is complete and univocally signals whenever one or more protections occur. Furthermore a break motor phase diagnostics is also available, very useful to determine wiring problems or motor failures.

The complete setting of the driver is immediate and simple thanks to the graphic software designed for Windows platform.

- ✓ Decimal and binary resolution
- ✓ Resolution up to 25,600 step/rev
- ✓ STEP frequency over 300KHz
- ✓ Wide range of power supply
- ✓ High current density
- ✓ Resonance damping
- ✓ Automatic current reduction
- ✓ Accurate current control
- ✓ Chopper frequency over 20KHz
- ✓ High efficiency power mosfet stage
- ✓ Optocoupled and differential I/O, independently NPN or PNP usable
- ✓ Inputs working from 3Vdc up to 30Vdc with constant current
- ✓ Line driving supported
- ✓ Digital signal conditioning for each I/O
- ✓ Complete diagnostics with univocal indication for each anomaly
- ✓ Over/under voltage protection
- ✓ Cross phase short circuit protection
- ✓ Ground short circuit protection
- ✓ Positive supply short circuit protection
- ✓ Overheating protection
- ✓ Break motor phase diagnostics
- ✓ Compact size
- ✓ Connections on screw terminal block
- ✓ Low cost

The connection to the programming DUP port of the driver is possible through the UDP30 interface, which is connected to the PC by the USB port.



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Symbol	Description	Value			Unit		
		Min	Typical	Max			
Vp	Power supply voltage	OS1044		20	50	Vdc	
If	Phase current (RMS)	OS1044		1	4	Arms	
Vp	Power supply voltage	OS1048		20	50	Vdc	
If	Phase current (RMS)	OS1048		3	8	Arms	
Vp	Power supply voltage	OS1073		24	90	Vdc	
If	Phase current (RMS)	OS1073		0,8	3	Arms	
Vp	Power supply voltage	OS1076		24	90	Vdc	
If	Phase current (RMS)	OS1076		2	6	Arms	
Vp	Power supply voltage	OS1078		24	90	Vdc	
If	Phase current (RMS)	OS1078		4	10	Arms	
Vp	Power supply voltage	OS1084		45	160	Vdc	
If	Phase current (RMS)	OS1084		2	4	Arms	
Vp	Power supply voltage	OS1087		45	160	Vdc	
If	Phase current (RMS)	OS1087		4	8.5	Arms	
Vp	Power supply voltage	OS1098		45	240	Vdc	
If	Phase current (RMS)	OS1098		4	10	Arms	
Res	Step resolution available	200, 400, 800, 1000, 1600, 2000, 3200, 4000, 5000, 6400, 10000, 12800, 25000, 25600			Step / Rev.		
Vdi	Digital input voltage range	3			30	Vdc	
Idi	Digital input supply current	4			6	8	mA
Vdo	Digital output voltage range	1			30	Vdc	
Ido	Digital output current range				50	mA	
Prt	Protections	Over/Under voltage, Short circuit, Overheating, Break Phase					
Fch	Chopper frequency	20			KHz		
Mechanical Specifications							
FDh	Height	OS1044, OS1073		18		mm	
		OS1048, OS1076, OS1078, OS1084, OS1087, OS1098		29			
FDI	Depth			105		mm	
FDw	Width			78		mm	
FDnw	Weight	OS1044, OS1073		90		g	
		OS1048, OS1076, OS1078, OS1084, OS1087, OS1098		180			

