

## Microstepping drivers 20V...160V 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 OSxxx 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 2.5mm<sup>2</sup> 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.

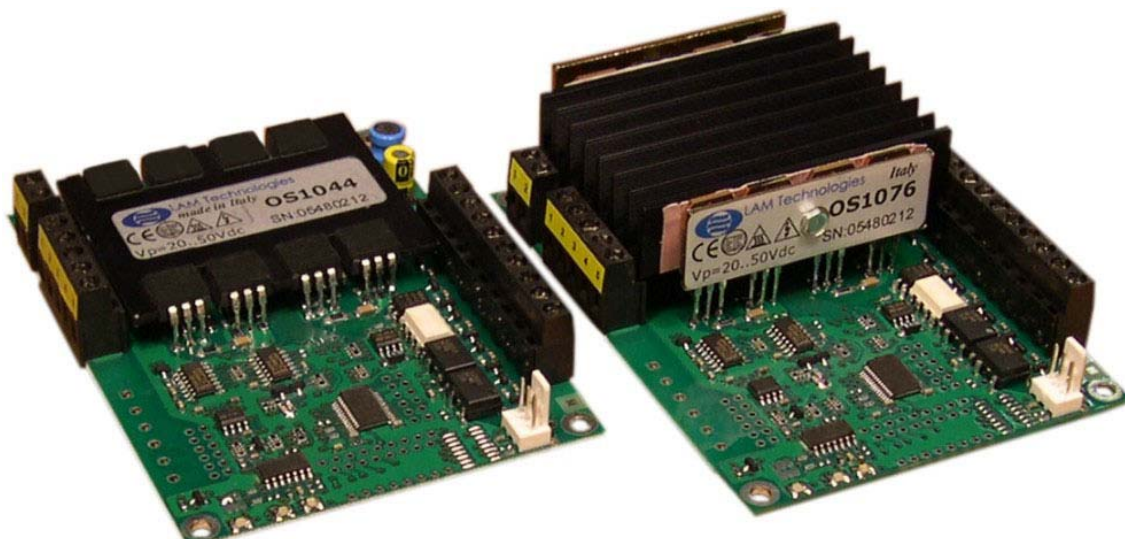
The driver is fully protected to preserve its integrity from the most common problems.

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.



Symbol	Description		Value			Unit
			Min	Typical	Max	
Vp	Power supply voltage	OS1044	20		50	Vdc
If	Phase current (RMS)		1		4	Arms
Vp	Power supply voltage	OS1048	20		50	Vdc
If	Phase current (RMS)		3		8	Arms
Vp	Power supply voltage	OS1073	24		90	Vdc
If	Phase current (RMS)		0,8		3	Arms
Vp	Power supply voltage	OS1076	24		90	Vdc
If	Phase current (RMS)		2		6	Arms
Vp	Power supply voltage	OS1078	24		90	Vdc
If	Phase current (RMS)		4		10	Arms
Vp	Power supply voltage	OS1084	45		160	Vdc
If	Phase current (RMS)		2		4	Arms
Res	Step resolution available		200, 400, 800, 1000, 1600, 2000, 3200, 4000, 5000, 6400, 10000, 12800, 25000, 25600			Passi per giro
Vdi	Digital input voltage range		3	24	30	Vdc
Idi	Digital input supply current		4	6	8	mA
Vdo	Digital output voltage range		1	24	30	Vdc
Ido	Digital output current range				50	mA
Prt	Protections		Over/Under voltage, Short circuit, Overheating, Break Phase			
Fch	Chopper frequency			20		KHz
<b>Mechanical Specifications</b>						
FDh	Height	OS1044, OS1073	18			mm
		OS1048, OS1076, OS1078, OS1084	29			
FDI	Depth		105			mm
FDw	Width		78			mm
FDnw	Weight	OS1044, OS1073	90			gr
		OS1048, OS1076, OS1078, OS1084	180			
<b>Rated range of use</b>						
FCa	Altitude				2000	m
FCt	Temperature		0		50	°C
FCh	Humidity (non condensing)		10		90	%
<b>Conditions of storage and transport</b>						
SCa	Altitude				4000	m
SCt	Temperature		-20		60	°C
SCh	Humidity (non condensing)		5		95	%

