



Stepper Drive DSR 92-70-C

- Bipolar high-performance stepper drive
- Supply voltage 40-80V_{DC} , max. motor current 6,5 A_{ms}
- Eurocard dimensions: Width 5 PU, Height 3 HU
- Noiseless at standstill, smooth operation
- Chopper frequency 20 kHz
- Selectable positive or negative input signal logic
- Power stage protected against short circuit and ground fault
- Thermal protection
- Low heat losses
- Idle current reduction after adjustable waiting time
- Full-step, half-step and microstep operation
- Up to 25.600 microsteps per motor revolution

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*Helping you build a better machine, **faster.***

The DSR modules are compact, microstep stepper drive modules, intended to drive 2-phase stepper motors. Different switch and jumper settings allow optimal adaption to the individual application. The units are designed for rack mount and own one 32-pin DIN 41612 strip connector for all electrical connections.

The most important features are:

- **Bipolar power stage**
- **Different user selectable microstepping resolutions**
- **Idle current reduction**

DSR motor current ranges from 0,3 Arms to 6,5 Arms, selectable by means of a rotary HEX switch. A max. peak current of approx. 9,2 A at microstep operation is available and corresponds to 6,5 Arms full step current. Working from a DC power supply between 40 and 80 Vdc, the stepper drive produces well controlled motor phase currents. 14 different step resolutions are selectable.

Technical Data

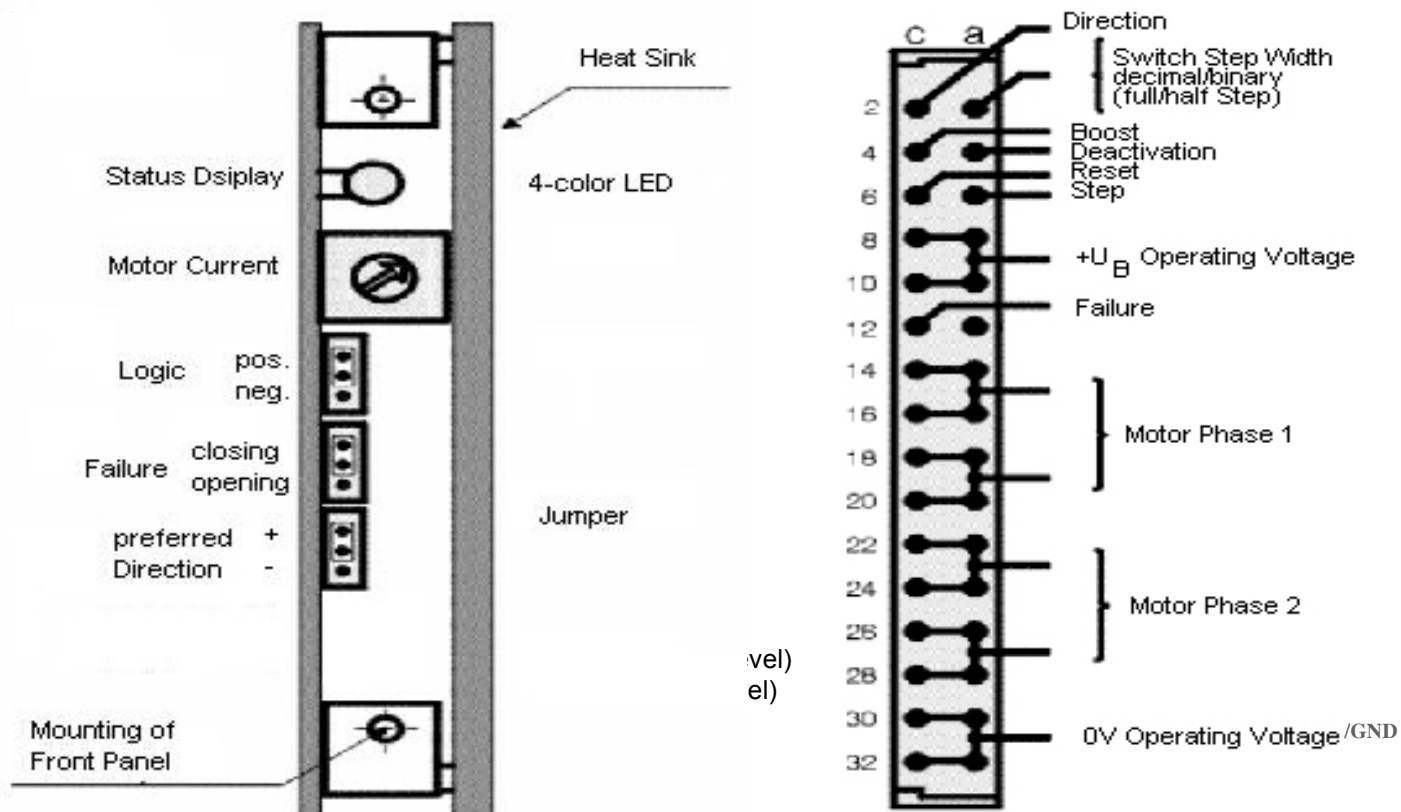
Supply Voltage	70 V _{DC} power supply voltage range 40 to-80 V _{DC}
Motor Current	Max. 9,2 A _{peak} (6,5A _{rms}) 16 values ranging from 0,3 to 6,5 A _{rms} selectable by means of a rotary HEX switch Suitable for all 2-phase stepper motors in 4/6/8 lead versions
Idle Current	Idle current reduction at standstill (40% or 20% of operating current) after 50, 100 or 1000 ms after the last step command (deactivation possible). Selection between positive or negative logic by jumper setting.
Inputs	Selection between positive or negative logic via jumper
- Step	Max. input frequency: 500 kHz (Pulse duty factor: 50%)
- Direction	Reversal of motor direction; selection of preferred direction with jumper
- Deactivation	If activated motor current is switched of
- Boost	Increases motor current by approx. 30% if activated
- Reset	Resets power stage to the initial status
- decimal/binary	If activated the decimal step modus is chosen. Switches between full and half step if full step modus is chosen
Outputs	Open-collector, active low, max. 0,2A @ 40V
- Basic Position	Displays: - every 4th pulse in full step operation - every 8th pulse in half step operation - every 16th pulse in 800-step operation - every nth in m-step operation (n = m/50)
- Error	Common error signal: can be set as opening or closing type contact
Error	Status display: multi-color LED white: reset/power off; green: stand by; yellow: motor runs; red: fault
Temperature	0 – 40 °C ambient temperature
Humidity	10 – 90%, non-condensing
Front Panel	FP/DSR (5TE) Front panel has to be ordered separately
Back Panel	DSR-MB-KIT Back panel with pluggable screw terminals for logic signals and motor. Back panel has to be ordered separately

Power Supply Can be supplied with an unregulated DC voltage. For rack mounting we recommend the power supply MTB-25-AB (+ front panel FP14/3) in combination with back panel MB-MTB-03-KIT

Step Size (DIP switch selectable)

Partition		Steps/Resolution (1,8°-Motor)	
decimal	decimal	decimal	binär
full step	half step	200	400
half step	¼ (of a full step)	400	800
1/5 (of a full step)	1/8	1000	1600
1/10	1/16	2000	3200
1/25	1/32	5000	6400
1/50	1/64	10000	12800
1/125	1/128	25000	25600
1/250	1/5	500	1000

Front View (without front plate) Connector Assignment



Order Code

DSR92-70-C