

HSE-Harvard Microdrive 864/1



The motorized micrometer drive Type 864/1 is based on the motor X axis of the long-established micromanipulator DC-3K. Together with the HSE Microdrive Controller Type 864 it permits remotely controlled displacement of microelectrodes or capillaries, e.g. in intracellular potential recording, patch clamp experiments or stereotaxic investigations in the brain. It thus represents a complete alternative to hydraulic micro drives which have now become very expensive. The mechanism is based on a conventional micrometer screw with a displacement of 10 mm. The micrometer scale is visible and permits reading to 10 μm . The drive is powered by a flange-mounted DC motor with gearbox. The micrometer drive slider moves on a precision crossed-roller guide.

The excellent rolling properties of the guide ensure absence of sticking and sliding friction, and therefore no stick-slip effect, so that this design is ideally suitable for precision displacement systems. The micrometer drive is mounted at its back through a 7 mm dia. mounting bolt parallel to the working axis. The drive can therefore be mounted e.g. on the non-remote-control micromanipulator MM-3 in place of the microelectrode holder.

Specifications

Spindle	Precision micrometer
Displacement Range	10 mm
Resolution	2 μm
Drive	DC motor (12 V, 100 mA nom. current)
Gearbox	Spur gearing; compensation of gearing backlash is through backlash correction setting of HSE Microdrive Controller Type 864
Connection Cable	Foil-screened cable with moulded Mini-DIN plug suitable for HSE Microdrive Controller Type 864 (approx. 1.60 m long)
Scale	According to displacement, 0 to 10 mm, reading accuracy 10 μm
Case	Rigid aluminium, black anodized
Mounting	On back, offset 7 mm clamping bolt parallel to working axis
Dimensions, H x W x D	112 x 25 x 32 cm (4.4 x 1 x 1.3 in), sizes without fitted microelectrode holder and mounting bolt
Weight	320 g (11.3 oz)

- Resolution down to 2 μm

Catalog No.

CGS 8084.38
CGS 8085.38

Product

DC Microdrive Type 864/1, 115 V
DC Microdrive Type 864/1, 230 V