eppendorf

Individual Control

DASGIP® TC4SC4 and Bioblock for temperature and agitation control

Individual Temperature and Agitation Control

The DASGIP TC4SC4 provides four overhead drives with individual stirring speeds from 30 to 1,600 rpm, combined with precise temperature control. The TC4SC4D supports use of heat blankets, while the TC4SC4B can be operated with the DASGIP Bioblock. The Bioblock is an integrated solution for individual heating and cooling control of up to four bioreactors.

For applications requiring more heat removal capacity, e.g. high-density microbial fermentations, each TC4SC4 can additionally control four cooling fingers.

Microbiology
Effective cooling and powerful stirring with up to 1,600 rpm support effective mass and heat transfer even in viscous media or high cell density fermentation. Temperatures of up to 99 °C make the DASGIP temperature control suitable even for special applications such as biofuel development.

Cell culture
The DASGIP TC4SC4 allows for active heating and optional cooling as well as continuously adjustable stirring speeds as low as 30 rpm. It supports gentle cultivation of adherent cells on microcarriers or of suspension cultures, minimizing shear stress.

4-fold individual temperature control supporting glass and single-use vessels: The DASGIP Bioblock

DASGIP® Bioblock

The compact DASGIP Bioblock provides accurate and independent temperature control for four bioreactors while saving valuable lab space. Individual electric heating elements with integrated safety temperature sensors, as well as separate cooling coils, activated by solenoid valves, enable a wide temperature range. Temperature control starts at 5 K above cooling agent and goes up to 99°C.

The DASGIP Bioblock can be used for all applications in microbiology, animal, and human cell culture. Eppendorf offers Bioblock-suitable autoclavable vessels in various sizes covering working volumes of 200 mL – 2 L. The Eppendorf BioBLU® 1 Single-Use Vessels for cell culture and microbiology were designed for use with the DASGIP Bioblock eliminating the need to autoclave and shortening turn-around times.

»As easy as stacking blocks.«

The flexible Eppendorf DASGIP modules for monitoring and control meet the highest demands in research and process development labs or as a part of quality assurance. The parallel nature of the DASGIP modules and their compact, stackable design enable individual operation of up to 16 bioreactors while making optimal use of lab space.

For more information please also refer to our brochures on DASGIP solutions for monitoring, feeding, and gassing.

Technical data* and ordering information

	DASGIP® TC4SC4B	DASGIP® TC4SC4D	DASGIP® SC4D
Power supply	110 – 240 V, 50/60 Hz	110 – 240 V, 50/60 Hz	110 – 240 V, 50/60 Hz
Dimensions (W × D × H)	300 × 320 × 190 mm (11.8 x 15.6 x 7.5 in)	300 × 320 × 190 mm (11.8 x 15.6 x 7.5 in)	300 × 320 × 190 mm (11.8 x 15.6 x 7.5 in)
Weight	9 kg	9.5 kg	8.5 kg
Digital interface	RS-232	RS-232	RS-232
Temperature control			
Set-up	DASGIP® Bioblock	Heat blankets/cooling fingers	–
Typical control range (depending on set-up)	5 K above cooling agent temperature – 99°C	5 K above cooling agent temperature – 60°C	–
Agitation control			
Drive	Overhead drives	Overhead drives	Overhead drives
Typical speed range (depending on drive)	30 – 1,250 rpm/100 – 1,600 rpm	30 – 1,250 rpm/100 – 1,600 rpm	30 – 1,250 rpm/100 – 1,600 rpm
System integration			
Analog interface (0 – 10 V)	o	–	–
Communication protocol**	DTP (OPC)	DTP (OPC)	DTP (OPC)
Order number	76DGTC4SC4B	76DGTC4SC4D	76DGSC4D
Order number stand-alone	–	76DMTC4SC4D	–

* Technical specifications are subject to change without notice. ** Stand-alone modules incl. OPC server software (requires separate PC)
o = optional

Accessories

Description	Order no.
DASGIP® Bioblock, for 4 vessels (4-position heating/cooling block, max. temp. 99°C)	76DGTBLOCK
DASGIP® Cooling Water Distribution Unit, incl. connection cable	
for 4 condenser ports	76DGCWD4
for 4 condenser-/ and 4 cooling finger ports	76DGCWD44
DASGIP® Inline Water Filter, incl. accessories for 4-fold or 8-fold systems	76DGIWF
Accessories for DASGIP® CWD4, for 4-fold system	76DGCWD4UM
Accessories for DASGIP® CWD4+4, for 4-fold system	76DGCWD44UM
DASGIP® Overhead Drive RE30, 30 – 1,250 rpm, digitally encoded	
for 1 vessel, lipseal assembly w/ M30 seat	76DGRE30
for 1 vessel, lipseal assembly w/ Pg 13.5 seat	76DGRE30G
for 1 BioBLU® 1 Single-Use Vessel	76DGRE30SU01
for 1 BioBLU® 5 Single-Use Vessel	76DGRE30SU05
DASGIP® Overhead Drive RE40, 100 - 1,600 rpm, digitally encoded	
for 1 vessel, lipseal assembly w/ M30 seat	76DGRE40
for 1 BioBLU® 1 Single-Use Vessel	76DGRE40SU01
for 1 BioBLU® 5 Single-Use Vessel	76DGRE40SU05

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