

Eicom **ERP-10**
ROLLER PUMP

EICOM CATALOG



**WE STRIVE TO BETTER THE RESEARCH EXPERIENCE
AND IMPROVE THE QUALITY OF HUMAN LIVES.**

EICOM

Eicom was founded in Japan in 1986. Our belief is when analytical instruments are made correctly, their reliability, sensitivity, and simplicity coexist and create the best user experience and optimal results. This principle has led Eicom to become a world leader in electrochemical detectors and HPLC systems for neuroscientists.

SUPPORT AND SERVICE

Good communication with our customers provides a stable foundation for success, which is the original meaning of Eicom. Our knowledgeable support/sales team are integrated to ensure customers can rely on our expertise to achieve their goal with efficiency and integrity.

PRODUCTS

Customer communications inspire us to pursue innovative solutions and new technologies. We introduce our products based on our commitment to enhance your research experience.



Table of Contents

HPLC-Electrochemical Detector	
HTEC-500.....	1
700 Series.....	3
System Configurations.....	5
ECD Applications	6
AS-700 Autosampler.....	7
ENO-30 Nitrite and Nitrate Analyzer	8
Microdialysis	
Brain Microdialysis and Microinjection.....	9
Probes	11
Large Molecule Recovery.....	13
Tethering Systems.....	15
Microdialysis Instruments	17
Microdialysis Instructions.....	19
Teleopto Wireless Optogenetics	21
Stereotaxic	
Stereotaxic Frames.....	23
Stereotaxic Accessories.....	25
Anesthesia.....	29
Labware	31
Live Cell Imaging	33

All-In-One HPLC-ECD

- Trouble-free integrated system
- Maximum sensitivity every day
- Minimal lag from start to stable
- Simple to operate and maintain

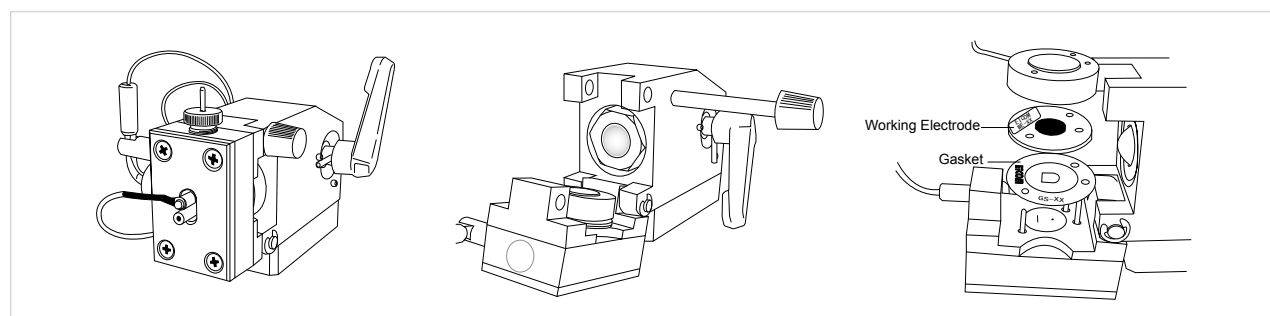
The HTEC-500 is the world's only complete stand alone HPLC-ECD system. It was designed with simplicity in mind. The integrated design stabilizes quickly and provides excellent sensitivity. All the components, pump, degasser, detector, and temperature control, fit neatly into one compact cabinet. The innovative pulse quenching pump eliminates the need for a pulse damper. This system is sure to impress both expert and novice alike. Get results fast with ready-to-use applications.

550,000.00



Eicom's Innovative Cell Design

- Ultrasensitive, 30 fg of dopamine
- Graphite electrode often ready to use < 30 mins after start-up
- No tools to access the working electrode
- Easy to clean or change the working electrode

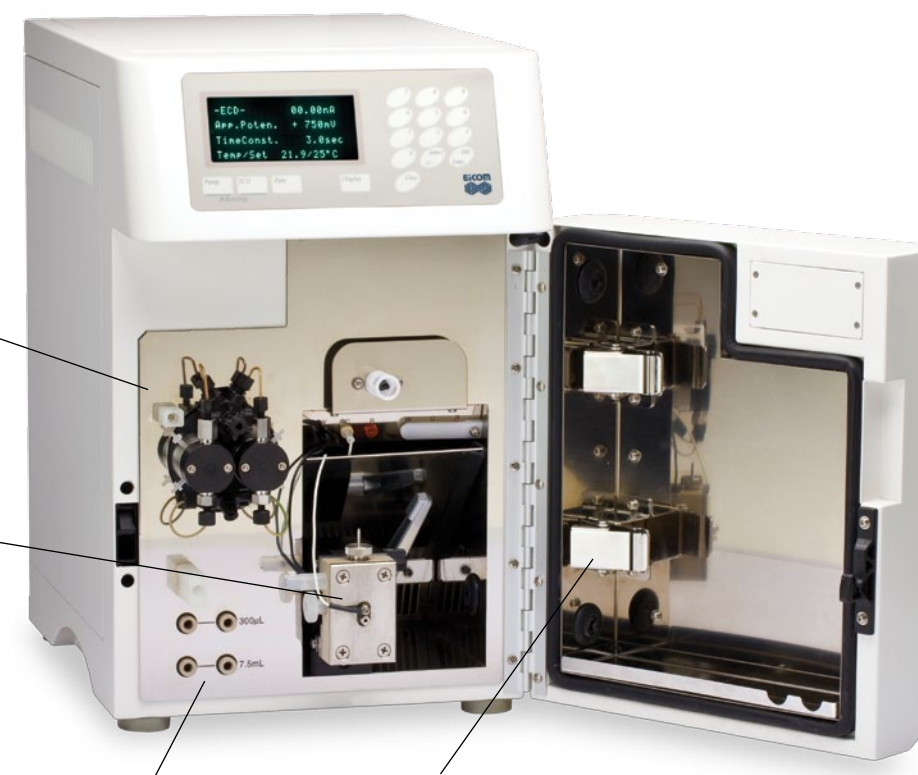


The key to the sensitivity is the cell design. Eicom relies on a spring loaded mechanism that always maintains the proper pressure. This structure allows the detector to quickly stabilize after the cell is opened and closed. Another benefit is that the working electrode can easily be accessed without any tools. In this way, the electrode can easily be wiped clean and reinstalled to insure maximum sensitivity.

Anatomy of the HTEC-500

Pulse Quenching Pump
Computer control. No pulse damper required.

Electrochemical Detector
Amperometric design.
Inexpensive and interchangeable working electrodes.



Online Solvent Degasser
For enhanced pump reliability.

Temperature Control
For more stable retention time and ECD signal. Both heats and cools. Room temperature analysis possible.

HTEC-500 SPECIFICATIONS

Electrochemical Cell	Amperometric with 3 electrode DC potentiostat (standard)
Second Cell (optional)	Coulometric cell
Working Electrode	Graphite composite (standard), glassy carbon, pure graphite, platinum, gold, silver
Reference Electrode	Ag/AgCl
Counter Electrode	316 stainless steel
Applied Voltage Range	-2000 mV to +2000 mV, 1 mV increments
Auto Zero Function	Between -1000 nA and +1000 nA; triggered by external input
Micro Flow Pump	100-750 μ L/min, 1 μ L increments, 4 μ L/stroke, 20 MPa maximum pressure
Solvent Degasser	2 channels, 300 μ L and 7.5 mL
Temperature Range	15-55°C, 1°C increments; 20-45°C (recommended range)
Temperature Accuracy	+/- 0.05°C
Size (H x W x D)	25 cm x 39.9 cm x 36.5 cm
Weight	18 kg

HPLC-ECD System

- Maximum flexibility
- Multiple pumps and detectors
- Dual electrode
- Pulse-free pump

Expandability is the keyword for the 700 Series. Extra pumps and detectors can be added as necessary. The standard configuration includes the ECD-700 detector equipped with one amperometric cell, the EP-700 pump unit with one microflow pump installed, and the ATC-700 temperature control unit. The pump unit also has a two channel solvent degasser built in.



EP-700 Pump Unit With Pulse-Free Mode

- Pulse quenching by onboard computer control
- No pulse damper necessary
- Two channel degasser included
- Gradient control built in

Revolutionary pump design effectively quenches flow pulses. Cumbersome pulse damper units are no longer a necessity. The adaptive algorithm minimizes pressure fluctuations by continually adjusting the piston velocity. Each EP-700 unit holds up to two pumps, and there are two types to choose from, high flow or micro flow. The standard EP-700 unit comes with one microflow pump installed.

570.000.00

No More Pulse Dampers Means

- Smaller volume between column and pump
- Rapid pressure response after starting the pump
- More accurate gradients

EP-700 SPECIFICATIONS	
Pressure Limit	20 MPa
Micro Flow Pump	100-500 µL/min, 1 µL increment, 4 µL/stroke
High Flow Pump	0.5-3.0 mL/min, 0.01 mL increments, 32 µL/stroke
Wetted Surfaces	PEEK, Sapphire, Ruby, PCTFE
Special Features	Gradient control built in, input signal for start/stop
Built-in Degasser	2 channels: 300 µL volume/ea, up to 3.0 mL/min

ATC-700 Temperature Controller

Temperature control provides the most stable retention times and detector signals. The ATC-700 performs this function even at room temperature due to its ability to both heat and cool.

ATC-700 SPECIFICATIONS	
Temperature Range	15-55°C, 1°C increments, 20-45°C (recommended range)
Temperature Accuracy	+/- 0.05°C

190.000.00

ECD-700 Electrochemical Detector

- Add an ECD to any HPLC system
- Two cells per detector possible
- Amperometric or coulometric cells
- Dual electrode

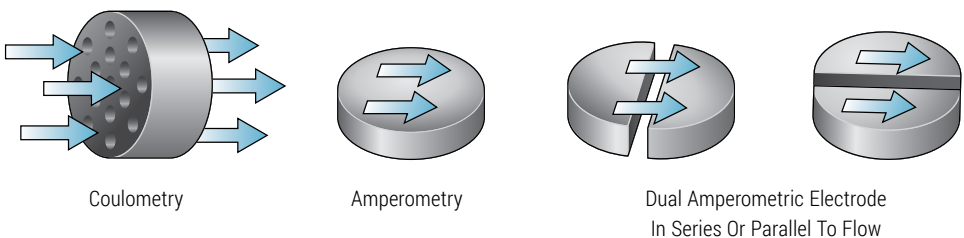
110.000.00



Eicom's ECD-700 electrochemical detector offers superior stability and sensitivity. It relies on the same proven detector cell that's in the HTEC-500. Refer to the previous page for more information. When the standard amperometric cell is fitted with the optional dual electrode, the ECD-700 can monitor two voltages at the same time. A second amperometric and coulometric cell can be added to the unit at any time.

Coulometry or Amperometry

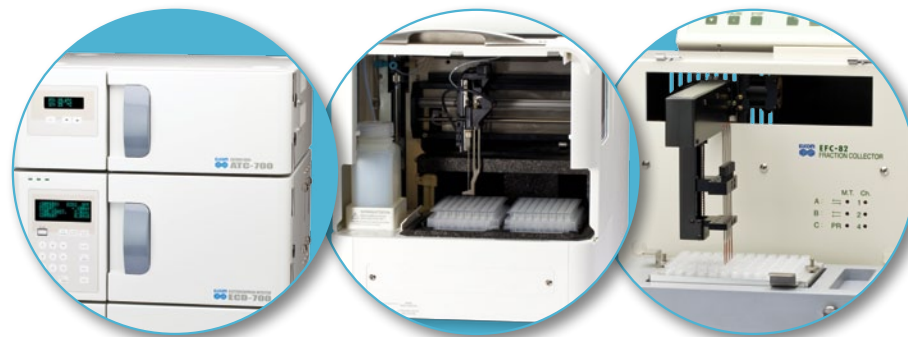
Coulometry detects analytes as they pass through a porous electrode. Electrolysis tends to be near complete. In amperometry, the analyte contacts the surface of a smooth electrode, and only a portion of the analyte is detected. Amperometry ultimately gives better sensitivity due to its higher signal to noise ratio. For this reason, Eicom recommends using amperometric cells whenever possible.



ECD-700 SPECIFICATIONS	
Electrochemical Cell	Amperometric with 3 electrode DC potentiostat (standard); Space for optional second cell
Second Cell (optional)	Coulometric or amperometric
Working Electrode	Graphite composite (standard), glassy carbon, pure graphite, platinum, gold, silver
Optional Dual Electrode	Glassy carbon, graphite composite (both use a shared reference)
Reference Electrode	Ag/AgCl
Counter Electrode	316 stainless steel
Applied Voltage Range	-2000 mV to +2000 mV, 1 mV increments
Auto Zero Function	Between -1000 nA and +1000 nA; triggered by external input

Example I - High Throughput and Simplified Workflow for Microdialysis

- Simultaneous 4 animal sample collection
- Simple transfer of sample plates directly to the autosampler



HPLC-ECD System

Autosampler

Fraction Collector

If the goal is quick turnaround between experiments or multiple animal testing, this sort of system is the perfect choice.

Example II - Online Microdialysis Analysis for Sensitive Compounds and Rapid Data Monitoring

- Minimize delays between experiment and data
- Avoid handling sensitive samples



If degradation of sensitive samples during the time between collection and analysis is a concern, online analysis is the solution. This system also allows the user to get data while the experimental procedure is still being conducted.

No HPLC system is complete without great applications to go with it. Eicom provides proven protocols. The methods have been thoroughly tested in-house. It's the only way to get results fast. This is by no means a complete list. If there is a compound you want to detect or a method that you've found, contact us for assistance.

Dopamine and Serotonin in 5 Minutes - Eicompak PP-ODS

High sensitivity, 30 fg for DA

Acetylcholine - Eicompak AC-Gel

5 femtomole sensitivity makes basal level detection possible without inhibitors

Monoamines and Metabolite - Eicompak SC-30DS

11 compounds in 15 minutes

Glutamate - Eicompak GU-Gel

No derivatization required so online analysis is possible

GABA - Eicompak SC-50DS

GABA peak identity confirmed experimentally

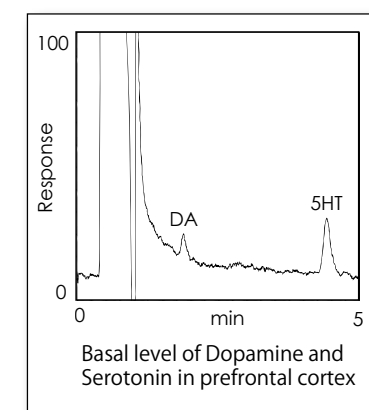
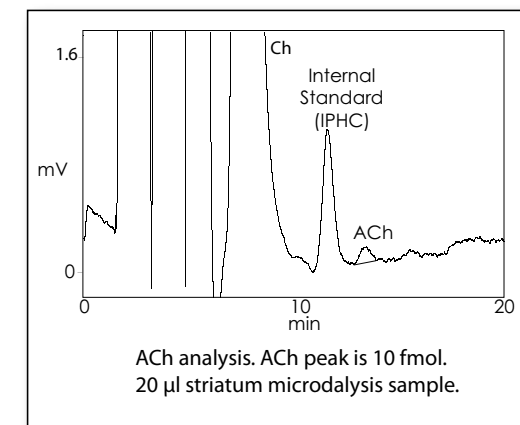
Norepinephrine, Dopamine, and Serotonin in 15 mins - Eicompak CAX

Clean chromatogram, no metabolites

Plasma Catecholamines

Other Detectable Compounds

Phenols Anilines Estrogens Opiates Quinones Indoles Tocopherols
Purines Thiols



Additional Applications available upon request.





AS-700 INSIGHT Autosampler

- Robust mechanism for greater reliability
- Fits two standard microtiter plates
- Zero sample loss injection methods
- Efficient cooling without condensation issues

Autosamplers increase the precision of HPLC data and easily handle OPA derivatization methods. Why not let the reliable INSIGHT autosampler inject your samples while you focus on more important things? Your time is valuable.

750.000.00



Great Choice for Small Samples

Many scientists are forced to deal with limited sample volumes. When faced with this dilemma, the question is always how much of the sample can be injected. With Eicom's INSIGHT autosampler just 10 µL out of 12, or even 11 µL, can be injected without wasting any sample during the injection process. In many small volume injection methods, the sample volume is loaded into the sample loop between two segments of wash fluid. Once injected, the wash fluid complicates the solvent front which decreases the sensitivity for early eluting compounds. The Eicom Microliter Pick-up (EMP) injection method avoids this problem by only injecting sample and mobile phase.

AS-700 SPECIFICATIONS	
Sample Capacity	2 standard microtiter plates, 12 wells to 384 wells
Cooling	4°C to room temperature by convection across Peltier cooler
Special Features	Integrated 200 mL wash bottle, plate/vial detection, head pressure
Syringe	500 µL (standard)
Sample Loop	100 µL (standard)
Wetted Surfaces	FEP (tubing), passivated stainless steel (needle), PEEK (injection valve)
Instrument Control	
Software	Envision, Clarity, EZ Chrom, others
Communication	Serial RS232C (USB with adaptor)
I/O Signals	Programmable relay outputs and TTL inputs

Streamline Your Nitrite and Nitrate Analysis

ENO-30 Features

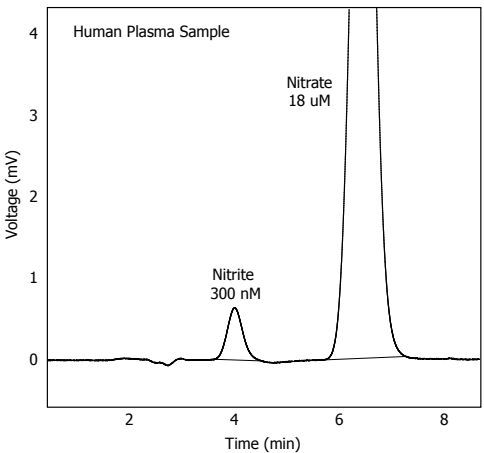
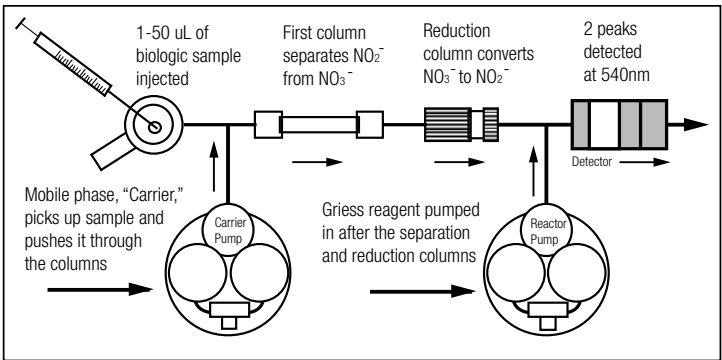
- Suitable for all biological fluids (1-50 µL injections)
- Both nitrite and nitrate from single measurement
- Sensitivity is better than 0.1 pmol (10 nM for 10 µL)
- Easily automated to run 144 samples per day

The ENO-30 continues the tradition of Eicom's successful ENO-20 NO_x analyzer. The ENO-30 system is a specialized HPLC for separating and detecting nitrite and nitrate in various biological fluids. The system makes use of a simple Griess reaction, in which nitrite reacts to form a light absorbing compound that can easily be detected. However, compared to a typical plate or tube based Griess assay, the ENO-30 greatly enhances sensitivity and reproducibility. In addition, high throughput analysis is achieved by pairing the instrument with an HPLC autosampler, an impossible feat for the gas phase chemiluminescent detectors sometimes used to detect nitric oxide. Data collection, calibration, and analysis are handled by Eicom's Envision software package.

502.800.00



How does it work?



Nitrite and Nitrate Appear as Two Peaks

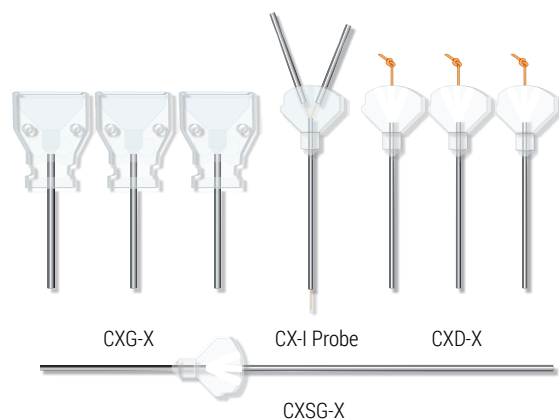
Each injection measures both nitrite and nitrate. Peak sizes are proportional to concentration in the sample.

Perfect for Biological Samples

Sensitive enough for small volume biological samples. The typical sample is just 1-50 µL of blood plasma, urine, saliva, breathe condensate, tissue homogenate, cell culture supernatant, or microdialysate. Simple sample preparation consist of the addition of an equal volume of methanol to inactive and precipitate proteins, whereas low protein samples can be direct injected without prior manipulation.

Brain Microdialysis & Microinjection

Brain Microdialysis, CX-I Series



- Probes snap into guide cannulae
- Membrane material: artificial cellulose with a 50,000 Da MWCO*
- Membrane ID/OD: 200/220 µm
- Use of a harness system to prevent pulling out the probe recommended
- Recovery rate information is on page 12

*MWCO = Molecular Weight Cut Off

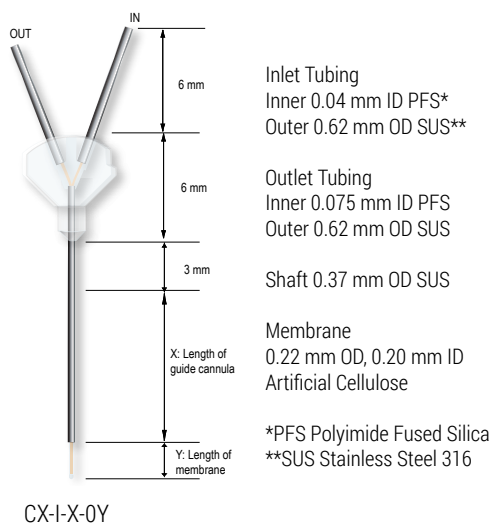
Guide Cannula CXG-X

- Shaft: 0.5 mm OD stainless steel
- Length is designated by X
- Cup thickness is 2.5 mm

X is the length of the guide cannula. Available in X = 2, 4, 6, 8, 10, 12 mm.
Y is the length of the membrane. Available in Y = 0.5 to 10 mm, in increments of 0.5 mm.

For faster delivery, consider ordering X = 4, 8, 12 mm and Y = 1, 2, 3 mm.

CX-I-X-0Y	807.000.00	Probe 1 each
CXG-X	807.100.00	Guide cannulae 3 pcs/pk
CXD-X	807.200.00	Dummy probes 3 pcs/pk
CXSG-X	807.300.00	Stereotaxic adaptor of guide 1 each
Sterile	Add -S	Sterilized with ethylene monoxide gas before shipping



Inlet Tubing
Inner 0.04 mm ID PFS*
Outer 0.62 mm OD SUS**

Outlet Tubing
Inner 0.075 mm ID PFS
Outer 0.62 mm OD SUS

Shaft 0.37 mm OD SUS

Membrane
0.22 mm OD, 0.20 mm ID
Artificial Cellulose

*PFS Polyimide Fused Silica
**SUS Stainless Steel 316

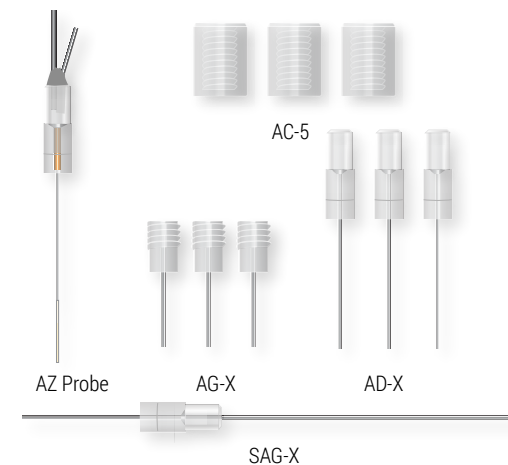
Microinjection Cannulae



CXMI-X

CXMI-X	807.400.00	Microinjection cannulae 3 pcs/pk, OD shaft 0.35 mm, OD inlet 0.5 mm
CXG-X	807.100.00	Guide cannulae 3 pcs/pk
CXD-X	807.200.00	Dummy probes 3 pcs/pk
CXSG-X	807.300.00	Stereotaxic adaptor of guide 1 each
CXMI(T)-X	807.400.10	Small microinjection cannulae, 3 pcs/pk, shaft OD 0.15 mm, ID 0.06 mm
CXG(T)-X	807.100.10	Small guide cannulae, 3 pcs/pk, OD 0.3 mm
CXD(T)-X	807.200.10	Small dummy probe, 3 pcs/pk
CXSG(T)-X	807.300.10	Stereotaxic adapter for implanting small guide, CXG(T)-X, 1 ea

Brain Microdialysis, AZ Series



- Secure attachment to the guide cannula with a threaded cap nut
- Membrane material: Artificial cellulose with 50,000 Da MWCO
- Membrane ID/OD: 200/220 µm
- Available in custom sizes
- Recovery rate information is on page 12

Guide Cannula AG-X

- 0.5 mm OD stainless steel
- Fuses with acrylic resin/dental cement

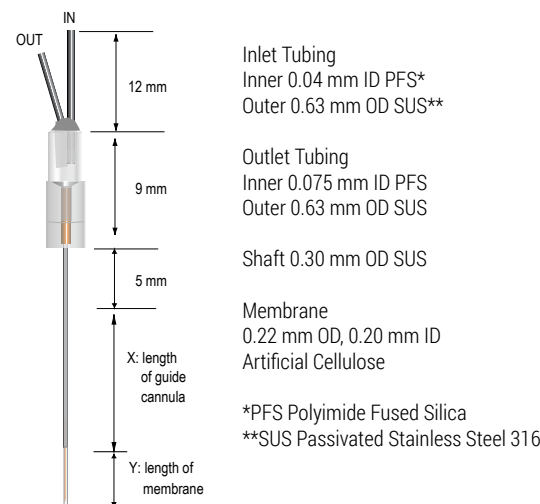
Cap Nut AC-5

- 5 mm OD
- Does not fuse with acrylic resin/dental cement

X is the length of the guide cannula. Available in X = 2, 4, 6, 8, 10, 12 mm.
Y is the length of the membrane. Available in Y = 0.5 to 10 mm, in increments of 0.5 mm.
For faster delivery, consider ordering X = 4, 8, 12 mm and Y = 1, 2, 3 mm.

AZ-X-0Y	801.501.00	Probe 1 each
AG-X	801.210.00	Guide cannulae 3 pcs/pk
AD-X	801.110.00	Dummy probes 3 pcs/pk
SAG-X	801.401.00	Stereotaxic adaptor of guide 1 each
AC-5	801.315.00	Cap nut 3 pcs/pk
Sterile	Add -S	Sterilized with ethylene oxide gas before shipping
AMI-X	806.302.00	Injection cannulae 3 pcs/pk (AZ without membrane)

Assembly AZ + AG + AC-5



Inlet Tubing
Inner 0.04 mm ID PFS*
Outer 0.63 mm OD SUS**

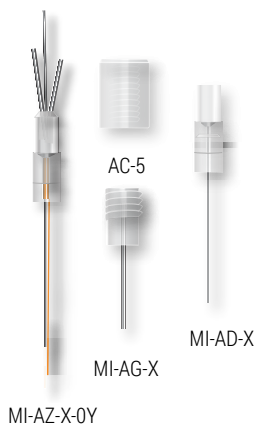
Outlet Tubing
Inner 0.075 mm ID PFS
Outer 0.63 mm OD SUS

Shaft 0.30 mm OD SUS

Membrane
0.22 mm OD, 0.20 mm ID
Artificial Cellulose

*PFS Polyimide Fused Silica
**SUS Passivated Stainless Steel 316

Microinjection + Microdialysis, MI-AZ

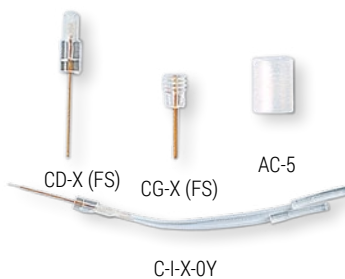


- Injection cannula (0.075/0.15 mm ID/OD) outside the membrane
- Position of injection cannula tip specified by customer. Standard is at the middle of membrane because it works better to monitor the effect of injection than if positioned at membrane tip
- Guide cannula OD is 0.7 mm
- Refer to AZ probe for X and Y specifications
- For injection cannula without microdialysis, please see bottom of each table in previous pages

Please order by specifying probe dimensions. All custom made. Allow us 3 weeks for delivery. X for shaft length and Y for membrane length. X = 1 to 20 mm, Y = 0.5 to 4 mm

MI-AZ-X-0Y	803.001.00	Probe with microinjection cannula 1 each
MI-AG-X	803.201.00	Guide cannulae for MI-AZ 3 pcs/pk
MI-AD-X	803.101.00	Dummy probes for MI-AG 3 pcs/pk
MI-SAG-X	803.301.00	Stereotaxic adaptor of guide, MI-AG 1 each
AC-5	801.315.00	Cap nut 3 pcs/pk
Sterile	Add -S	Sterilized with ethylene oxide gas before shipping

Non-Metal Microdialysis Probes and Guides, C-I



- For use in MRI and PET studies
- FEP tubing used for inlet and outlet.
- Membrane material: artificial cellulose with a 50,000 Da MWCO
- Membrane ID/OD: 200/220 µm
- Guide cannula OD: 0.66 mm

Please order by specifying probe dimensions. All custom made. Allow us 3 weeks for delivery. X for shaft length and Y for membrane length. X = 1 to 20 mm; Y = 0.5 to 4 mm

C-I-X-0Y	808.000.00	Probe 1 each
CG-X (FS)	808.200.00	Guide cannulae 3 pcs/pk
CD-X (FS)	808.100.00	Dummy probes 3 pcs/pk
AC-5	801.315.00	5 mm OD cap nuts 3 pcs/pk

Extra Small Brain Probe, DZ

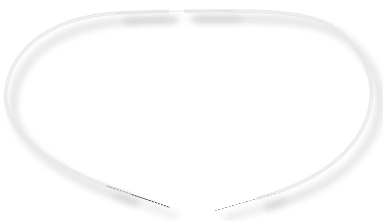


- Smallest and least expensive probe
- For direct implantation, no guide cannula available
- Great for mice
- Membrane material: artificial cellulose with a 50,000 Da MWCO
- Membrane ID/OD: 200/220 µm
- Use probe holder ATH-02 to implant

Order by specifying probe dimensions. X for shaft length and Y for membrane length. X = 0.5 to 10 mm, Y = 0.5 to 4 mm.

DZ-X-0Y	801.004.00	Probe 1 each
ATH-02	809.820.00	Probe holder for DZ type

Linear Probe, OP



- Great for skin and other organs
- Needle on one end for easy implantation
- Membrane material: artificial cellulose with a 50,000 Da MWCO
- Membrane ID/OD: 200/220 µm
- 40 µm diameter platinum wire inside supports membrane
- Flexible tubing is polyethylene (PE-10)
- Flexible tubing OD: 0.61 mm
- Inlet and outlet OD: 0.33 mm (= 26 G needle)

Order by specifying probe dimensions. X for each side of PE-10 tubing length and Y for membrane length. X = 50 to 200 mm, Y = 1 to 20 mm, OP-100-10 is the most popular size.

OP-X-0Y	805.001.00	Linear probe 1 each
---------	------------	---------------------

Flexible Concentric Probe, TP



- For use in blood vessels, gastrointestinal organs
- Membrane material: artificial cellulose with a 50,000 Da MWCO
- Membrane ID/OD: 200/220 µm
- Flexible shaft is TFE (Teflon®)
- Flexible shaft OD: 0.6 mm
- Inlet and outlet OD: 0.33 mm (= 26 G needle)
- 0.04 mm fused silica tubing inside to minimize dead volume.

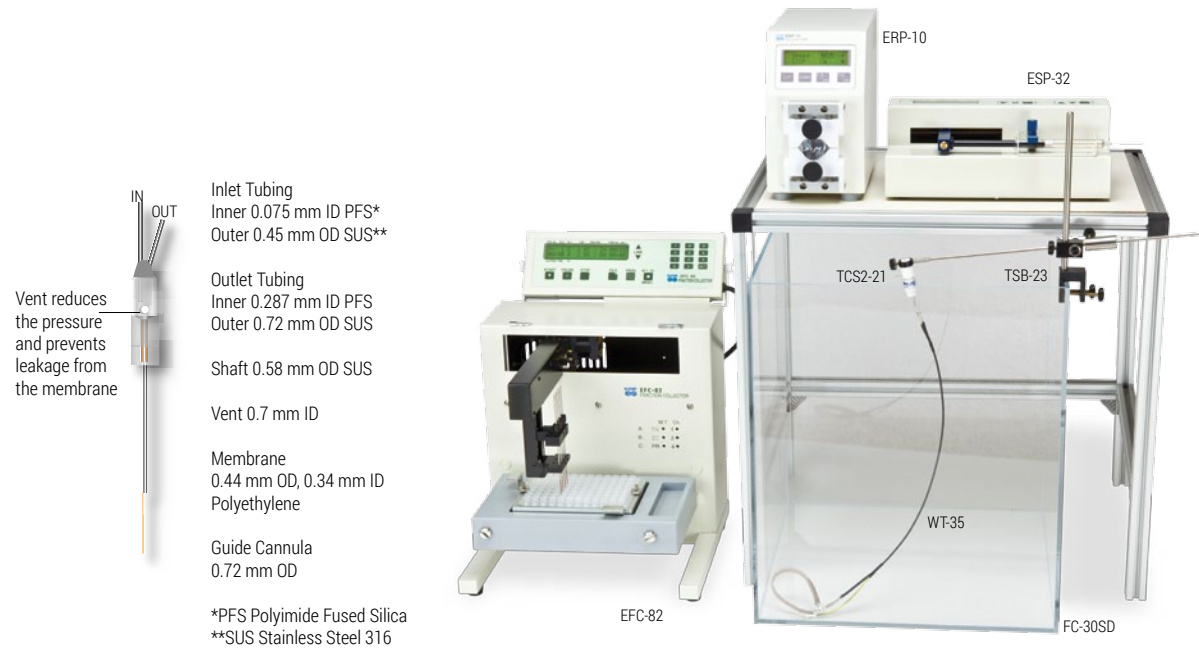
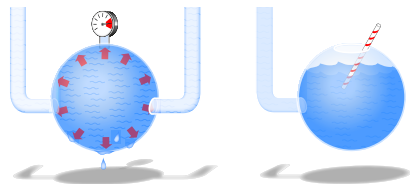
Order by specifying probe dimensions. X for TFE tubing length and Y for membrane length. X = 10 to 200 mm, Y = 1 to 20 mm, TP-100-10 is the most popular size.

TP-X-0Y	805.003.00	Flexible concentric probe 1 each
---------	------------	----------------------------------

AtmosLM™ Pressure Canceling Microdialysis for Large Molecules

- Efficient recovery of proteins
- No leakage despite large 1,000,000 Da pore membranes
- Avoids using tedious “push-pull” techniques

AtmosLM™ probes have a membrane of 1,000,000 Da MWCO (molecular weight cut off) to allow large molecules to go through. A vent in the probe prevents pressure inside the probe from exceeding atmospheric pressure and causing fluid leakage from the large pore membrane. A growing number of proteins have been successfully detected. These include: TNF- α , amyloid- β , IL-6, Tau, BDNF and CRF. To remove the microdialysis sample from the probe, our Roller Pump, ERP-10, is required in addition to a syringe pump for infusion.



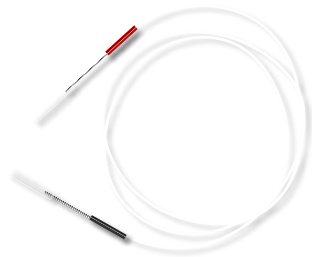
AtmosLM™ Probe PEP-X-0Y

AtmosLM™ System (See also page 10 and 11)

Tubing between probe and ERP-10 has to be 0.25 mm ID. Please use WT-35 to connect swivel and probe, and JF-10 tubing to connect a swivel and the ERP-10. Other parts work with normal microdialysis setup. For details of each component, please see the catalog section that describes the component. Please request additional information about your target protein before starting AtmosLM microdialysis.

PEP-X-0Y	600.132.00	Probe 3 pcs/pk	TCS2-21	800.380.00	Swivel 21G, 2 channel
PEG-X	600.133.00	Guide cannulae 3 pcs/pk	JF-10-XX	800.160.XX	0.25 mm ID FEP Tubing with XX cm length
PED-X	600.134.00	Dummy probes 3 pcs/pk	JT-10-XX	809.210.XX	0.10 mm ID Teflon Tubing with XX cm length
PESG-X	600.135.00	Stereotaxic adaptor for guide 1 ea.	TSB-23	800.320.00	Balance arm without swivel
WT-35-X	600.116.XX	Freely moving tube with tether hook. Two channels 0.1 mm ID and 0.25 mm ID	NF-20	280.396.00	Harness for rats
FC-30SD	809.001.91	Cage 30 x 30 x 35 cm. Extra shipping cost required.			

Tubing, JT-10, JF-10 and JB-30



- 50 cm pre-cut is our standard. Other lengths are available
- Ends are reinforced with the stainless steel sleeves with 0.8 mm OD
- Attached with 2 small pieces of vinyl connector (JB-30)
- No solvent is required to prepare the connectors for use
- JT-10s are 0.10 mm ID of Teflon® (shown left figure), good for regular microdialysis
- JF-10s are 0.25 mm ID of FEP, good for AtmosLM. Sleeve covers are Green and Orange

Standard products are JT-10-50 and JF-10-50 with 50 cm. Please order JT-10-XX by replacing “XX” with the desired length in cm. For example, 30 cm is JT-10-30. It may take longer to ship custom length.

JT-10-50	809.210.05	Standard 50 cm. 0.1 mm ID Teflon® tubing with joints
JT-10-10	809.210.01	Custom JT-10, 10 cm to 40 cm
JT-10-40	809.210.04	
JT-10-60	809.210.06	Custom JT-10. Add \$3 for each 10 cm for more than 50 cm. Ex. JT-10-70, 20 cm longer than JT-10-50. 2 x \$3+\$25 = \$31
JT-10-200	809.210.20	
JF-10-50	809.160.05	Standard 50 cm FEP Tubing 0.25 mm ID with connectors
JF-10-XX	809.160.01	FEP Tubing 0.25 mm ID. Same price structure with JT-10s
	809.160.20	
JB-30	809.410.00	Replacement connector tubing. Cut to size as needed, 1 m

Anchor Screws, AN-3



- Works to secure cement on skull
- Phillips head and self threading (pointy)
- 3 mm tall, stainless steel
- Plastic screws are available (5 mm)

Three Way Joint, JY-33



- 0.075 mm ID fused silica inside
- Body is 5 mm OD

Probe Holders, ATH-01



- Clamps a microdialysis probe to stereotaxic apparatus
- This product is not required to implant a guide cannula

AN-3	809.701.00	Anchor screw 3 mm stainless steel
PN-5	809.703.00	Anchor screw 5 mm plastic
JY-33	809.520.00	3-way Joint
ATH-01	809.810.00	Probe holder for AZ type
ATH-02	809.820.00	Probe holder for DZ type
ATH-03	807.850.00	Probe holder for CX-I type

Complete Tethering System for Rats, TSU-20



TSU-20 includes

- TSB-23, a simple and sturdy counterweighted balance arm. Simple finger tighten screws for attaching to the vertical wall of a cage
- TCS2-23, two channel liquid swivel (3 pcs/pk)
- WT-20T, a tether which comprises two microdialysis tubes wrapped in protective plastic and a hook and wire connector
- 2x JT-10-50
- NF-10, simple Velcro® collar that connects to the tether, WT-20T via a jewelry clip

TSU-20	800.350.00	Complete tethering system for rats with 3 swivels, TCS2-23
TSU-20-1	800.350.01	Complete tethering system for rats with 1 swivel, TCS2-23
TSB-23	800.320.00	Replacement balance arm assembly, no tubing or swivel included
WT-20T	800.130.00	Replacement leash tubing with hook
NF-10	800.140.00	Replacement Velcro rat collar for use with WT-20T
NF-20	280.396.00	Criss-cross rat harness for use with WT-20T (not included in TSU-20)
DR-CE-C	280.397.00	Replacement Kevlar® straps for DR-CO-D harness for rats, 25 cm x 2

For Mice, TMU-20



TMU-20 includes

- TSB-23, a simple and sturdy counterweighted balance arm. Simple finger tighten screws for attaching to the vertical wall of a cage
- TCS2-23, two channel liquid swivel (3 pcs/pk)
- DR-CO-M, one piece leash and harness assembly
- 2x JT-10-40
- 2x JT-10-50

TMU-20	800.310.00	Complete tethering system for mice with 3 swivels, TCS2-23
TMU-20-1	800.350.01	Complete tethering system for mice with 1 swivel, TCS2-23
DR-CO-M	280.398.00	Criss-cross mouse harness assembly including, strap (DR-CE-M), strap adjuster, leash wire, wire adjuster, swivel adaptor (DR-SH-M)
DR-CE-M	280.399.00	Replacement Kevlar® straps for DR-CO-M
DR-SH-M	280.402.00	Replacement swivel adaptor. Extends radius of swivel and connects to leash

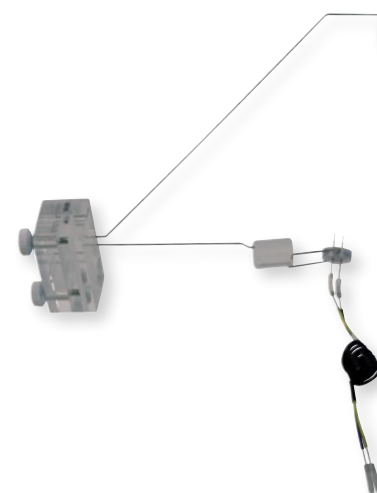
Liquid Swivels 2 Channel and 1 Channel



- Our low torque liquid swivels are simple and inexpensive
- They are compatible with many other tethering system

TCS2-23	800.301.00	Two channel (1.5 µL and 4.5 µL) swivel 23 G (0.15 mm) connections 3 pcs/pk
TCS2-21	800.380.00	Two channel (8.0 µL and 8.5 µL) swivel 21 G (0.45 mm) connections 3 pcs/pk
TCS1-20	280.280.00	One channel (11 µL) swivel 20 G (0.65 mm) connections 3 pcs/pk
TCS1-17	800.385.00	One channel (20 µL) swivel 17 G (1.1 mm) connections 3 pcs/pk

Concise Freely Moving System, SSU-20



- While not a true liquid swivel system, rotating joint allows for up to 50 turns
- Available in 2-, 3-, and 4-channel versions
- Inert (non-metallic) versions of this system are also available. Please inquire

SSU-20	800.550.00	Complete concise freely moving system
SSU-30	800.510.00	3 channel type of SSU-20
SSU-40	800.600.00	4 channel type of SSU-20
CT-20	809.120.00	Replacement 2 channel spiral tubing
CT-30	809.130.00	Replacement 3 channel spiral tubing
CT-40	809.140.00	Replacement 4 channel spiral tubing

Fraction Collector, EFC-82

- X-Y layout of samples
- Up to 4 channels
- 96 well plate or sample vials capability
- Cooling by the EFR-82

The Eicom Model EFC-82 was developed to collect microdialysis and other types of liquid samples at flow rates of approximately 0.1-10 μ L/min. 500 μ L or 300 μ L tubes are placed in an X-Y layout, which is easier to use than a carousel layout, and helps to avoid mistakes while handling samples. The availability of 96-well plates reduces the time to label each vial and avoids other troublesome chores.

The needles' tip positions are adjustable so as to softly touch the bottom of the sample tubes or plate. Sampling time, the number of samples and channels are easily set up by a key pad. No PC is required. Dispensing needles move simultaneously with 1, 2 or 4 channels. Liquid contact surfaces are Teflon and PEEK.



EFC-82	301.000.00	Microdialysis fraction collector
EFR-82	302.000.00	Cooling unit for EFC-82 control down to 6°C
LA-96	301.113.00	96 well plate (no skirt type) adaptor
LA-96B	301.115.00	5.5 mm OD vial tray 96 well plate layout
FRN-JJ	301.114.00	Replacement PEEK lined sampling needle, 1 each
Hex-Fit	F89.135.00	Hex Fit mini (10 pcs / pkg)

Microdialysis-HPLC Online Injector, EAS-20S

- Hands-off analysis
- Reduces auto-oxidation
- See effects before experiment finished
- No “kick-back” during valve switching from HPLC to microdialysis line

The Eicom EAS-20S collects and then injects microdialysis samples into an HPLC system according to a time-based program of valve switching entered via the key pad. This permits totally hands-off analysis. Auto-oxidation of unstable compounds is reduced. And after drug administration, the result is evident before the whole experiment is finished. The EAS-20S valve is designed to prevent “kick- back” during switching. This feature means fewer problems during the microdialysis procedure.



EAS-20S	322.000.00	Online autoinjector
AS-PN	230.230.00	Inlet PEEK needle 1 each
Hex Fit	F89.003.00	Hex Fit large (10 pcs/pk)

Syringe Pumps

The one motor version, ESP-32, drives two syringes. The two motor version with independent control for each motor, ESP-64, drives 4 syringes in groups of two at a time. Reversible motors make the ESP-64 unit compatible with “push-pull” techniques. Both models are pre-programmed for Hamilton Gastight® syringes between 10 μ L and 5 mL.



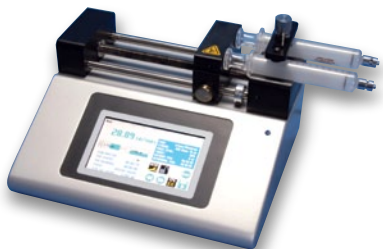
ESP-32	206.000.00	2 channel syringe pump, 1 motor drive
ESP-64	207.000.00	4 channel syringe pump, 2 motor drive
1002LTN3	201.102.00	2.5 mL Gastight syringe (Hamilton)
1005LTN3	201.103.00	5 mL Gastight syringe (Hamilton)

ESP-101 Microdialysis syringe/ Nanoliter Infusion Pump

Accurate cost effective syringe pump designed to hold glass or plastic syringes, of any make, from 10 μ L to 10 mL. This is an infusion only pump. The internal diameter of the syringe is used by the control program to calibrate the pump and deliver the volume and flow rate selected. For simplicity, the syringe diameter is also used to set automatically the volume and flowrate units.

In the event of a power interruption during operation, the pump can be programmed to either resume operation or remain stopped when power is returned.

217.811.01

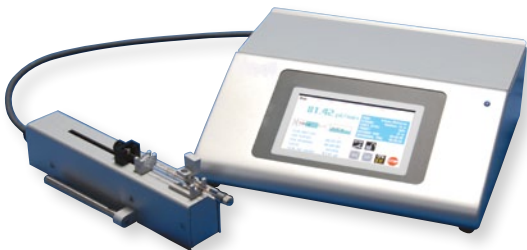


ESP-130 Microinjection Syringe Pump

The ESP-130 is an infuse/withdraw single syringe pump. It works exclusively with micro syringes from 0.5 μ L to 1000 μ L. It has a remote pump head which can be placed close to the experiment to eliminate dead volume with long tubing. It has a flowrate range from 3.66 pL/min to 3.818 mL/min depending on the syringe size. The remote pump head is ideal for use with a micromanipulator, stereotaxic and other clamping devices.

The large color display allows the user to see all of the pumps operating parameters to ensure proper operation during the experiments. Syringe size and flow rate are easily displayed as well as the volume delivered and the elapsed time. Any type of syringe can be used including glass and plastic.

217.881.30

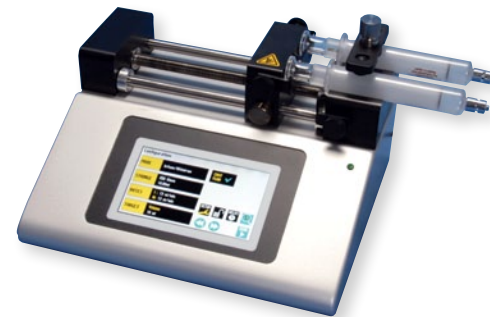


ESP-180 Microinjection Syringe Pump

The Eicom ESP-180 infuse only dual syringe is ideal for applications where dual syringes are required with small volumes under 10 mL. It is the ultimate in precision flow delivery. It offers the most stable flow delivery of all the ESP products. It has a finer lead screw and a different pulley ratio from the ESP-101.

It offers multi step programs, each with 50 steps. Syringe size and flow rate are easily displayed as well as the volume delivered and the elapsed time. It accommodates two syringes from 0.5 μ L to 10 mL. Any type of syringe can be used in the unit including glass, plastic and stainless steel.

217.881.80



Roller Pump, ERP-10



The ERP-10 peristaltic pump developed for use as a sampling pump with AtmosLM. Stable at low flow rates. Works for push-pull sampling too.

Recommended flow rate	0.5 to 10 μ L/min
Rotation speed setting	0 to 1000 in 1 increment. 1000=18 rpm
Channels and rollers	2 channels and 6 rollers
Roller diameter	24 mm
Dimensions	10 (L) x 17 (H) x 23 (D) cm, 2.2 kg

ERP-10	600.100.00	Roller pump, 1 each
RT-5S	600.115.00	Replacement roller tube 0.25/2.07 (ID/OD) mm, 5 pcs/pk
RTJ	600.118.00	Replacement connection needle in RT-5S, 4 pc/pk

Syringe Selector, SI-60



Developed from Eicom's HPLC technology, this robust syringe selector can be used to switch flow between two syringes without pressure drops. One syringe always flows to the microdialysis probe while the other flows to a drain. Should the seal be scratched by salt crystals, it is easy to exchange by yourself. Tubing connector and fittings are included.

SI-60	230.200.00	Syringe selector
SI-PN	230.230.00	Replacement tubing connecting needle. 1 each
TC-50	502.075.00	Replacement finger tightening fittings 5 pcs/pk
Hex Fit	F89.135.00	Hex Fit mini (10 pc / pkg)

Here are the instructions for most microdialysis probes. Please check the instructions provided for each product.

Check the Probe before Beginning

We test each probe for defects and leaks prior to shipping. If you find a defective probe after following steps below, Eicom will replace the probe at no charge. However, we do not guarantee probes after insertion into an animal.

1. Use a 1 or 2 mL disposable syringe and flush distilled water in to the probe. The probe may become clogged or damaged if you initially flush with a salt solution. Use connector tubing (JB-30) to connect the syringe to the probe inlet. Probe inlet is longer than the outlet. Do not connect any tubing to the outlet of the probe. Simply confirm flow from the outlet and no leak around the membrane part.
2. If no flow is observed from the outlet, soak the membrane in distilled water for a few minutes and repeat step 1.

Air Bubbles

If there is an air bubble in the probe, the recovery rate will be lower because the air will prevent perfusate from reaching the membrane. Air bubbles should be removed before starting the study.

1. Any perfusate should be degassed before use.
2. Tiny bubbles may dissolve over time in the case of *in vivo* studies, but not for *in vitro* studies.
3. To remove the air bubble, please introduce a larger air segment at the inlet and flush. The larger air segment will remove the smaller air bubble. Do not connect any tubing to the probe outlet at this time.

Connecting Outlet

1. After confirming the probe neither leaks nor contains air bubbles, set the syringe pump to the proper flow rate. Standard flow rates are 1 to 2 μ L/min. A high flow rate coupled with a long outlet tubing can result in damage to the probe membrane.
2. Connect JT-10 tubing or others to the outlet. Lengths of tubing greater than 150 cm can cause leaking at the membrane or liquid swivel due to high back pressure. If you must use tubing longer than 150 cm, please avoid using flow rates higher than 2 μ L/min.

Perfusing Solution

It is important to use a non-buffered artificial CSF solution because phosphate may precipitate with calcium and clog the probe. A common perfusate composition is 147 mm NaCl, 2.8 mm KCl, 1.2 mm CaCl_2 , 0.8~1.2 mm MgCl_2

Cleaning and Storage of Probes

Remove the probe from system and flush it with sterile distilled water to wash out salts. Then put the probe in the sterile distilled water and place at 4°C for storage. Keep the membrane wet to prevent the membrane from shrinking. Eicom does not recommend reusing probes and cannot guarantee their function beyond the initial use.

Cleaning Lines (JT-10, JF-10)

Bacteria contamination and biofilms, or residual protein, inside the tubing can cause low recovery rates, especially when present in the tubing connected to the probe outlet. In order to avoid this problem, wash the lines with 2% commercial chlorine bleach in pure water. Perfuse the solution into the lines (not the probe) and leave it for at least one hour, then thoroughly rinse with water. Polyethylene tubing can cause confounding peaks when analyzing samples using HPLC with electrochemical detection.

All Eicom products are for animal research purpose only.

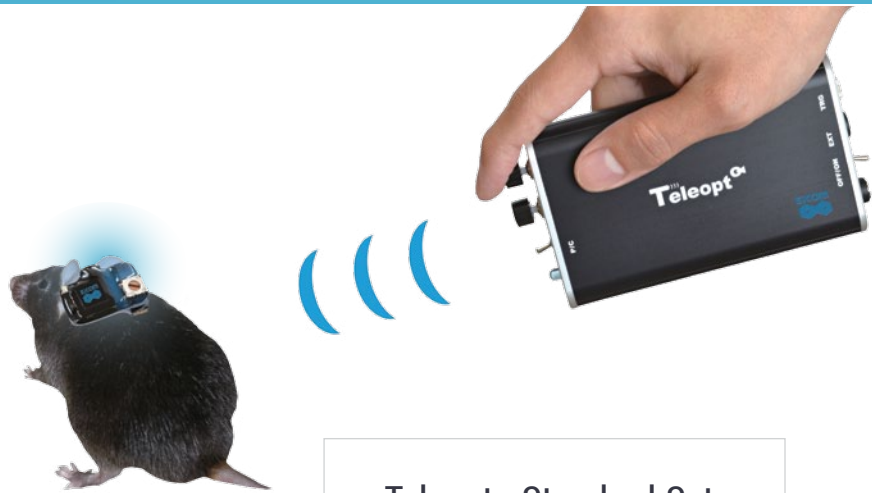
Keep the probe away from physical shock.

Probe inlet is a longer tubing and outlet is a shorter tubing.

Dura must be broken prior to insertion into the brain.

Teleopto -Wireless Optogenetic Stimulator

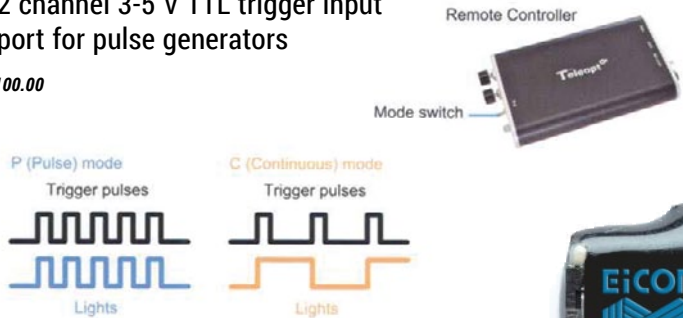
Teleopto provides wireless LED light sources, implantable optic fiber, and precise remote control in a complete and ready to use system for neuroscientists.



Tele opt Remote Control

- 2 channel remote with 1 m range
- Pulse or continuous operation
- Two trigger push buttons
- Optional external IR emitters
- 2 channel 3-5 V TTL trigger input port for pulse generators

E00.100.00



Teleopto Standard Set

- › 1x Teleopto remote controller
- › 1x Teleopto receiver 2 g/pulse
- › 3x LED optic fiber
- › 1x Infrared emitter
- › 1x Teleopto charger
- › 1x Cannula insertion tool
- › 1x Dummy receiver
- › 1x Trigger Cable

E00.200.00



Receivers

Teleopto wireless rechargeable receivers provide enough power to generate up to 13 mW of light at the tip of a optic fiber. The color can easily be changed between 470, 525, and 590 nm by simply swapping the optic fiber for one of the appropriate color. Receivers come in 3 different sizes (1 g, 2 g, and 3 g) and 3 different configurations (pulse, continuous, and 2-channel). The battery in the 1 g provides about 7 hrs standby time, the 2 g about 24 hrs, and the 3 g about 35 hrs. Actual usage time from a single charge will depend on how often the LED is used. Pulse receivers are intended for high frequency (>1 Hz) operation, continuous receivers for low frequency or continuous operation.

Receivers		
E01.010.00	1 g pulse	13 x 18 x 7 mm
E01.020.00	2 g pulse	16 x 23 x 7 mm
E01.030.00	3 g pulse	17 x 24 x 8 mm
E01.011.00	1 g continuous	13 x 18 x 7 mm
E01.021.00	2 g continuous	6 x 23 x 7 mm
E01.031.00	3 g continuous.	17 x 24 x 8 mm
E01.040.00	2 g 2 channel receiver for the two color optic fiber	16 x 23 x 7 mm

LED Optic Fiber

Optic fibers are robust enough for insertion without guide cannulae.

Specifications					
Blue/ø250 µm	4.5 mW (≈99.5 mW/mm²)	Green/ø250 µm	1.4 mW (≈31.1 mW/mm²)	Yellow/ø250 µm	1.0 mW (≈22.2 mW/mm²)
Blue/ø500 µm	13.0 mW (≈71.8 mW/mm²)	Green/ø500 µm	3.0 mW (≈16.6 mW/mm²)	Yellow/ø500 µm	2.8 mW (≈15.5 mW/mm²)



Ordering Information: See price sheet for product codes

Colors. Blue 470 nm, Green 525 nm, and Yellow 590 nm
Length. Specify the length of the optic fiber in mm.

Fiber diameter. Specify 250, 500, or 750 µm
Distance. Specify the distance between optic fibers for the Bilateral LED in mm.

Accessories



STO mk-2 Pulse Generator

Works with the remote control to provide precision 2 channel control of LEDs. Trigger inputs can all be controlled by the user.



Specification	
Trigger Input	2 ch (Independent)
Delay	100 µs-999 s
Width	100 µs-999 s
Interval	1-999
Pulse Number	100 µs-999 s
Repeat Interval	1-999
Repeat Number	100 µs-999 s

E00.160.00

LPM-100 Light Meter

Measures the light output at the tip of an optical fiber in mW.

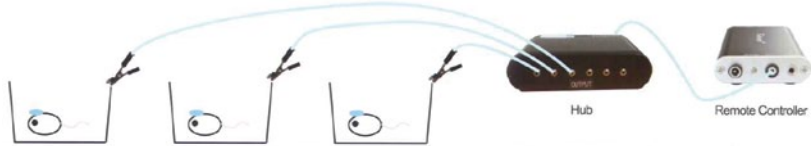


Specification	
Wavelength	470 nm (blue) 525 nm (green) 590 nm (Yellow)
Display	Liquid Crystal
Resolution	0.01 mW
Power	2x AA batteries

E00.170.00

TeleHub6

Used with the Tele opt remote control to power up to 6 TeleEmitters. Useful for providing even coverage in complex environments such as mazes with high walls or illuminating multiple cages



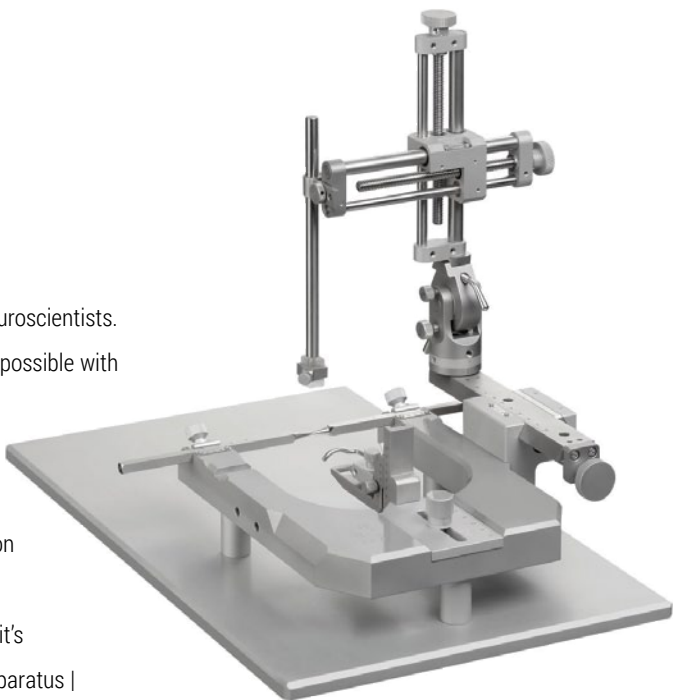
E00.125.00

Stereotaxic Frames

- **High accuracy**
- **Offers stereotaxic placements of electrodes, cannulae, and microdrill holders, etc**
- **Fast and smooth positioning**

The stereotaxics we carry were designed in collaboration with neuroscientists. Rigorously tested lead screws allow fast and smooth positioning possible with reliable and consistent accuracy for high reproducibility.

The stereotaxic manipulator can swivel out of the way and reliably return to the same point by using the locking feature. The stereotaxic manipulators can hold any angled position without slippage. Additionally, all majority of our instruments and components are widely compatible with other manufacturers, so it's [now easier than ever to upgrade and replace your stereotaxic apparatus] and accessories.



Stereotaxic Single Manipulator, Rat

Standard Rat Stereotaxic Apparatus, includes:

- U-frame and base
- Single manipulator
- Rat ear bars, pair, 18° or 45°
- Rat nose clamp adaptor
- Corner clamp probe holder

RW6.800.10

Stereotaxic Single Manipulator, Mouse

Standard Mouse Stereotaxic Apparatus, includes:

- U-frame and base
- Single manipulator
- Mouse nose clamp adaptor
- Corner clamp probe holder

RW6.801.20

Stereotaxic Dual Manipulator, Rat

Standard Rat Stereotaxic Apparatus, includes:

- U-frame and base
- Two manipulator arms
- Rat ear bars, pair, 18° or 45°
- Rat nose clamp adaptor
- Corner clamp probe holder

RW6.800.20

Stereotaxic Dual Manipulator, Mouse

Standard Mouse Stereotaxic Apparatus, includes:

- U-frame and base
- Left and right handed manipulators
- Mouse nose clamp adaptor
- Corner clamp probe holder

RW6.801.30

Digital Stereotaxic Frames

To improve accuracy and precision we recommend the digital versions with the same features as the standard stereotaxic instruments, but distinguishes itself with below additional features:

- **Greater speed of operation, and higher precision and reproducibility**
- **Battery powered: electronic noise caused by AC power is eliminated**
- **Comes with LCD displays that offer 10 micrometer resolution in three axes**
- **Auto zero function to simplify targeting of specific coordinates positioning possible**

Digital Stereotaxic Single Manipulator, Rat

Digital Desktop Stereotaxic Apparatus, Single Manipulator, Rat 18°, includes:

- U frame and base
- Digital left hand manipulator arm with 10 µm resolution
- Digital display module
- Rat nose clamp adaptor
- Rat ear bars, pair 18° or 45°
- Corner clamp probe holder

RW6.802.50

Digital Stereotaxic Single Manipulator, Mouse

Digital Desktop Mouse Stereotaxic Apparatus, Single Manipulator, includes:

- U frame and base
- Digital manipulator arm with 10 µm resolution
- Digital display module
- Mouse adaptor
- Corner clamp probe holder

RW6.801.60



Adaptors

Widely compatible with other manufacturers.

Rat Adaptor

This adaptor has 30 mm of vertical travel along dovetail slide while possessing precision of 100 μ m, and has 50 mm of anterior-posterior travel. Curve design of nose clamp fixes the head of the animals more tightly. The nose clamp assembly and 18° ear bars are included.

RW6.802.00

MRI Rat Adaptor

Designed for MRI equipment. The special materials avoid magnetic interference and stably secures the animal.

Dimensions: (L 360 mm) X (W 125 mm) X (H 96 mm)

RW6.801.10

Rat Gas Anesthesia Adaptor

Provides a reliable means for stabilizing the head, allowing versatility to angle the head without obstructing the ability to deliver gas anesthesia. Arch mounted tooth bar provides head adjustment focused around ear bar zero. In addition, is incorporated a custom nose clamping mask that can be utilized for delivering gas anesthesia.

*Dorsal/ventral adjustments: 40° (+20°~-20°), calibrated in 1°
Adaptor anterior/posterior adjustment: 43.5 mm
Gas anesthesia mask: inlet/outlet ports (dia. 2 mm)*

RW6.806.20

Mouse/Neonatal Rat Adaptor, Complete Stage

Stage can be fixed on U-frame, and has a raised platform with reversible ear bars. Use either pointed ends or plastic cupped ends. No additional accessories needed to elevate animal's body.

RW6.803.00

Mouse Adaptor

This simple mouse adaptor is great for allowing anterior access to the animal. Ear bars sold separately.

RW6.801.00

Mouse Adaptor

Holds the animal head and offers vertical regulation by means of a palate bar and nose clamp.

*Vertical adjustment: 30 mm (+10 mm~-20 mm)
with increments of 0.1 mm
Anterior-posterior travel adjustment: 43.5 mm,
Coronal adjustment: rotates 35°*

RW6.800.90

Mouse Gas Anesthesia Adaptor

Allows the researcher to deliver the anesthesia gas without any obstruction.

*Dorsal/ventral adjustments: 30 mm (+10 mm~-20 mm),
calibrated in 100 μ m
Vertical angle: 70° (-35°~+35°) accuracy: 5°
Lateral angle: 70° (-35°~+35°) accuracy: 5°
Anterior/posterior adjustment: 43.5 mm.
Gas anesthesia mask: inlet/outlet ports (dia. 2 mm)*

RW6.806.10

Neonatal Rat Anesthesia Adaptor

Offers maximum stereotaxic adjustment for positioning the head, allowing versatility to angle the head without obstructing the ability to deliver anesthetic gas.

*Dorsal/ventral adjustments: 30 mm (+10 mm~-20 mm),
calibrated in 100 μ m
Vertical angle: 70° (-35°~+35°) accuracy: 5°
Lateral angle: 70° (-35°~+35°) accuracy: 5°
Anterior/posterior adjustment: 43.5 mm
Gas anesthesia mask: inlet/ outlet ports (dia. 2 mm)*

RW6.806.60

Ear bars

All ear bars have laser engraved scales, and are well polished. Ear bars widely compatible with other manufacturers.

Rat 18° Ear Bars

18° ear bars taper at the tip to penetrate far into the ear canal for a more secure fixing.

RW6.830.10

Rat 45° Ear Bars

Non-puncture ear bars have a 45° taper and do not puncture the tympanic membrane.

RW6.830.20

Guinea Pig Adaptor

Secures the head through nose clamp and 45° ear bars. Has 30 mm of vertical travel and 50 mm of anterior-posterior travel.

RW6.805.00

Mouse, Non-Rupture, 60°

These ear bars are specifically designed for mice because of their fragile skull.

RW6.830.60

Mouse, Non-Rupture, Cuff, 60°

With hollow serrated ends, these ear bars provide a secure fixing without compressing the sides of the skull.

RW6.830.70

Mouse, Non-Rupture, Rubber, 60°

These ear bars are specifically designed for mice because of their fragile skull.

RW6.830.80

Probe Holders

Our probe holders feature some innovative designs that can't be found elsewhere.
All probe holders are secured to the manipulator using the standard V attachment and employ an 8 mm mounting bar.



Probe Holders		
RW6.821.20	Standard Probe Holder w/ C Clamp	This electrode holder is for probes with diameters from 0.3 mm to 4.5 mm, and uses a C design with a side clamp, which makes it easy to implant electrodes or micro-syringes.
RW6.821.30	Standard Probe Holder w/ Side Clamp	Holds electrodes or syringes with diameters from 0.3 mm - 4 mm.
RW6.821.60	Electrode Holder	Holds electrodes with diameters from 0.3 mm to 2.5 mm. This electrode holder is designed for the dual-operating experiments; the distance between the two electrodes can reach 200 µm while operating on two manipulators.
RW6.821.00	Electrode Holder	Perfectly meets the requirement of electrophysiological experiments. It holds electrodes with diameters from 0.7 mm to 2.5 mm.
RW6.821.10	Cannula Holder	Holds cannula heads with 1.5 mm to 4.5 mm diameter pedestals.
RW6.820.30	Cannula Holder	Works best to hold cannula with 3.4 mm to 3.5 mm diameter pedestal. Can hold cannula with pedestal diameters between 1 mm and 3.5 mm.
RW6.820.50	68205 Microdialysis Holder	Holds cannula with 3.4 -3.5 mm diameter pedestals
RW6.860.50	Holder for Microdrill	Allows control of the drilling depth by using the manipulator arm. Easy and accurate operation prevent excessive drilling.

Please ask for more probe holder availability.

Matrix

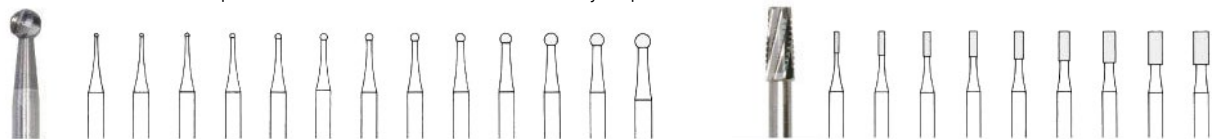
Brain Matrices are made of durable stainless steel which can be heated, chilled, autoclaved and scrubbed.



Brain Matrix		
RW6.870.90	Rat 175-300 g, Coronal	Brain matrix, rat, 175-300 g, coronal, stainless steel. Dimensions: A=4.76 mm B=15.9 mm C=12.7 mm D=36.6 mm E=24.5 mm Depth=7.61 mm
RW6.871.00	Rat 175-300 g, Sagittal	Brain matrix, rat, 175-300 g, sagittal, stainless steel. Dimensions: A=4.76 mm B=15.9 mm C=12.7 mm D=36.6 mm E=24.5 mm Depth=7.61 mm
RW6.871.10	Rat 300-600 g, Coronal	Brain matrix, rat, 300-600 g, coronal, stainless steel. Dimensions: A=4.76 mm B=19.8 mm C=14.7 mm D=36.6 mm E=25.7 mm Depth=10.91 mm
RW6.871.20	Rat 300-600 g, Sagittal	Brain matrix, rat, 300-600 g, sagittal, stainless steel. Dimensions: A=4.76 mm B=19.8 mm C=14.7 mm D=36.6 mm E=25.7 mm Depth=10.91 mm
RW6.870.70	Adult Mouse, Coronal	Brain matrix, adult mouse 40-75 g, coronal, stainless steel. Dimensions: A=3.18 mm B=11.1 mm C=8.73 mm D=19.1 mm E=12.5 mm Depth=7.4 mm
RW6.870.80	Adult Mouse, Sagittal	Brain matrix, adult mouse 40-75 g, sagittal, stainless steel. Dimensions: A=3.18 mm B=11.1 mm C=8.73 mm D=19.1 mm E=12.5 mm Depth=7.4 mm

Drill Bits

Used with Microdrill for opening the skull in stereotaxic surgery to implant electrodes, cannulae, and microdialysis probes.



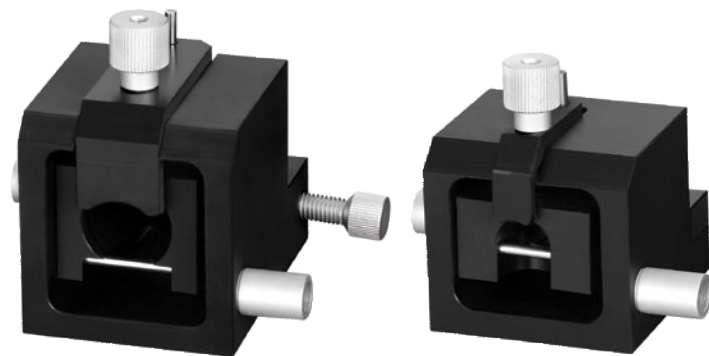
Drill Bits			
RW7.800.20	Drill bits 0.6 mm HM1006 Round Tip	RW7.801.20	Drill bits 0.5 mm HM1005 Round Tip
RW7.800.30	Drill bits 0.8 mm HM1008 Round Tip	RW7.802.10	Drill bits 0.8 mm HM31008 Flat Tip
RW7.800.40	Drill bits 1.0 mm HM1010 Round Tip	RW7.802.20	Drill bits 1.0 mm HM31010 Flat Tip
RW7.800.50	Drill bits 1.2 mm HM1012 Round Tip	RW7.802.30	Drill bits 1.2 mm HM31012 Flat Tip
RW7.800.60	Drill bits 1.4 mm HM1014 Round Tip	RW7.802.40	Drill bits 1.4 mm HM31014 Flat Tip
RW7.800.70	Drill bits 1.6 mm HM1016 Round Tip	RW7.802.50	Drill bits 1.6 mm HM31016 Flat Tip
RW7.800.80	Drill bits 1.8 mm HM1018 Round Tip	RW7.802.60	Drill bits 1.8 mm HM31018 Flat Tip
RW7.800.90	Drill bits 2.1 mm HM1021 Round Tip	RW7.802.70	Drill bits 2.1 mm HM31021 Flat Tip
RW7.801.00	Drill bits 2.3 mm HM1023 Round Tip	RW7.802.80	Drill bits 2.3 mm HM31023 Flat Tip

Anesthesia Masks

Rat/Mouse Anesthesia/ Gas Removal Mask

Gas supply inlet and gas scavenging outlet are offset for more efficient delivery of gas to the animal. The mask has an incisor bit and nose clamp to keep the animal stable. Compatible with stereotaxic frames from other major manufactures and can be fixed with mouse adaptor on stereotaxic.

RW6.862.30 Rat - RW6.862.10 Mouse



Rat/Mouse Anesthesia Masks

The gas anesthesia rat and mouse masks fit over the rat/mouse adaptors respectively and provides secure positioning to deliver anesthesia during stereotaxic surgery.

RW6.860.20 Rat - RW6.860.10 Mouse



Clear Cone Masks

Clear cone mask for full visualization. Highly flexible, replaceable rubber diaphragm for leak-free fit. Rat mask-dia 15 mm, mouse mask-dia 10 mm

RW6.861.60 Rat - RW6.861.50 Mouse



Small Animal Anesthesia Operation Platform

Platform size 300 x 210 x 75 mm. Mask not included.

RW6.862.00



Temperature Controller

This temperature controller is designed to maintain animal's body temperature at a pre-set target value during anesthesia. A thermistor probe provides feedback to the controller with the animal's body temperature.

The controller adjusts current to the heating pad as needed to maintain the desired body temperature. The circuit is well designed without electrical noise and for long term electrophysiology studies.

RW6.900.10 Rat - RW6.900.20 Mouse



MiniHub Anesthesia

The MiniHub Anesthesia System was developed to minimize the exposure of the researchers to anesthesia gas and comply with tighter regulations. The two main advantages of the MiniHub are time and isoflurane savings thanks to automatic flow and detection.



Safety Features

- Maintains less than 2 ppm isoflurane in the lab
- No gas released before scavenging system starts
- Sensors detect absence of animal from the chamber or mask and automatically shuts off anesthesia flow
- Visual alarm for saturation of built in filter canisters

Productivity Features

- Intuitive touch screen controller
- Independently set gas and scavenging flow rates to two induction chambers and two masks
- Transfer protocols between units with a USB drive
- Clean system design
- Autoclavable induction chambers and masks
- Works with oxygen or air supply gases

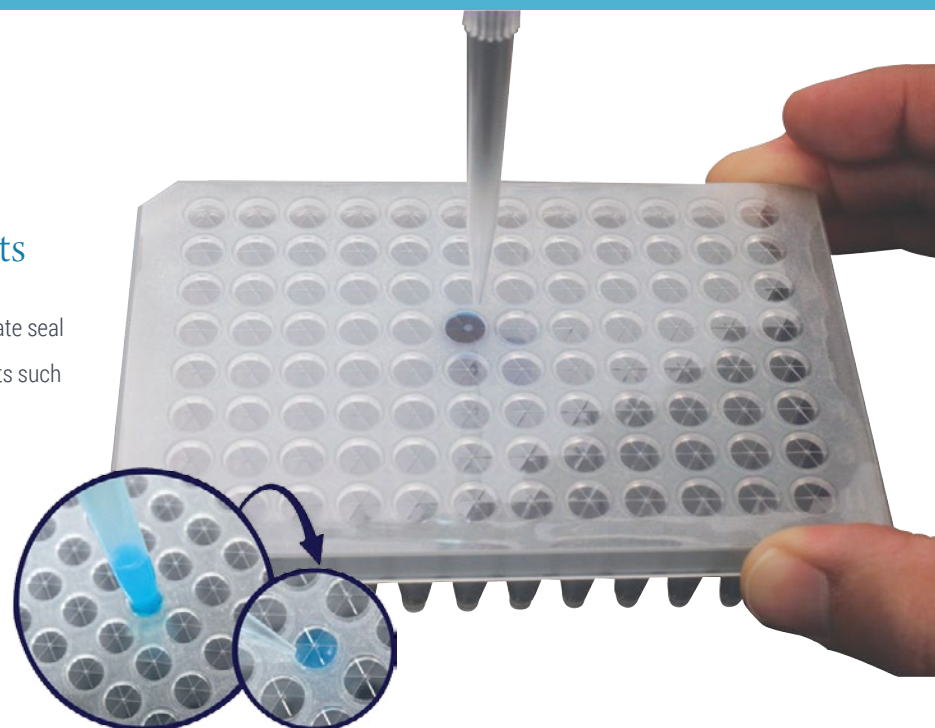


TS1.021.00	Anesthesia System Base
TS2.030.00	Autoclavable Induction Chamber
TS2.221.00	Complete Rat Mask
TS2.121.00	Complete Mouse Mask
TS2.021.00	Base Unit for Induction Chamber
TS2.300.00	Heater for Chamber
TS4.240.00	Charcoal Filter
TS3.300.00	Vaporizer Isotec 3

Slit Seal: Instant Self Closing with no Adhesive on Well Spots

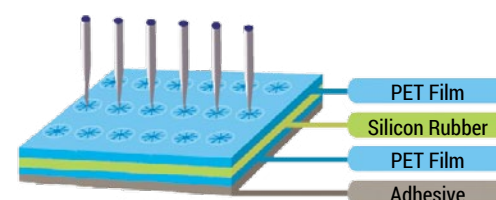
The Slit Seal is a 96-well instant self-closing plate seal that has excellent resistance to organic solvents such as DMSO, Methanol and Acetonitrile. Triple-layer structure designed for easy penetration and recovery, and immediately self-closes allowing next day analysis.

R80.120.00

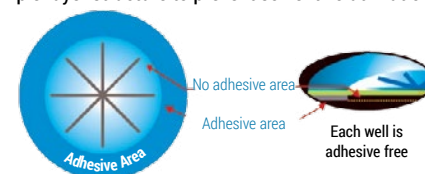


Applications:

- Automation
- ADME
- SPE
- Organic synthesis
- HPLC AMD LC/MC

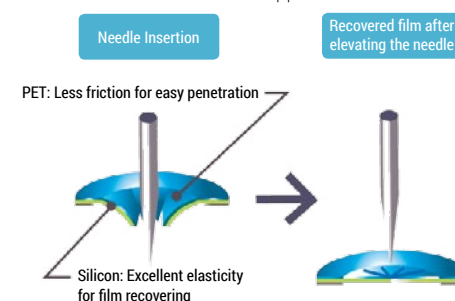


Triple-layer structure to prevent solvent volatilization.



Easy penetration and recovery

While pipetting/dispensing, the triple layer structure removes residues around pipette and needles



SLIT SEAL SPECIFICATIONS	
Size	80 x 122 mm (96-well format)
Material	PET, Silicone
Operating Temperature	-80 to +37°C

CRS: Clear Resistant Seal

- Minimal auto fluorescence for fluorescent assays
- High optical transparency for measuring absorbance
- High resistance to organic solvents, such as DMSO
- No contamination of adhesive into samples
- Human DNA, DNase, and RNase free
- Works for 96, 384 and 1536 well
- 100 Sheets/pack

R80.200.00



CRS SPECIFICATIONS	
Size	80 x 122 mm (96-well format)
Material	Polypropylene
Operating Temperature	-80 to +100°C

Microresico® Low-Binding Labware from Richell

Microresico® features low level of peptide or protein absorption to the container wall without coating and a high resistance to organic solvents to prevent additives from leaching into your sample.

Low-protein binding 96-well Plate

- Low protein binding
- High fluid recovery
- 350 µL capacity per well
- V-shaped bottom
- Autoclavable (121°C for 20 min.)
- Dimensions: 86 x 128 x 14.4 Mm
- 40 Plates/pack



RC9.201.80



Low-protein binding 0.5 mL and 1.5 mL Tubes

- Low protein binding
- High fluid recovery
- Frosted flat cap for easy writing
- Autoclavable (121°C for 20 min.)
- 100 Tubes/pack

RC9.201.60 for 0.5 mL or RC9.201.70 for 1.5 mL

Microscope Stage Top Incubator for Live Cell Imaging

Our Tokai Hit Stage Top Incubator offers precision temperature and CO₂ control for ideal incubation and observation environment in a compact body placed on your microscope stage. No need to place the entire microscope in a bulky incubator box anymore.

Large clear glass top heater provides uniform temperature distribution without condensation and prevents objective interference. Feedback sensor enables real-time and precise sample temperature feedback regulation. Bath heater embedded underneath the water bath maintains chamber humidity (~99 %) at all times.

TH0.100.00

- Unique top heating method
- Stable despite environment changes
- Built in water bath
- Can be used with Microwell plates and Petri dishes
- System includes lens heater and Neco software



Choose between three controllers:



INUBG2ATFP
Temp controller with built-in digital gas mixer.
Fixed 5% CO₂
(for 100% CO₂ cylinder use)
TH1.000.01



INUBTFP-F1
Temp controller with a flowmeter for premixed gas.
(for premixed cylinder gas)
TH1.000.02



INUBTFP
Temp controller only.
No gas supply function
(temperature regulation only)
TH1.000.03

Tokai Hit Stage Top Incubator INU Series Culture Results

Attribute of the cell	Name	Details	*Period
Cultured Cell	STO	Embryo; fibroblast, mouse	5 days
Cultured Cell	PC12	Pheocromocytoma; adrenal gland, rat (male)	5 days
Cultured Cell	HeLa	Adenocarcinoma; cervix human (female, 31 years)	5 days
Primary	Human Embryo	Human embryo in vitro; from fertilization to hatching blastocyst	7 days
Primary	Neurons	Development of rat neural stem cells to neurons and glial cells	4 days
Primary	Neural Stem Cells	Proliferation of neural stem cells of 14-day-old rat embryo	7 days
Primary	Neural Stem Cells	Differentiation of rat neural stem cells to neurons and glial cells	7 days
Primary	Hippocampal Neuron	E18 rat hippocampal neurons, cultured in CO ₂ incubator for the first day, followed by observation in INU up to 5 days.	5 days
Primary	Cardiac Myocyte	Neonatal rat heart, fetal mouse (13 days embryo) heart, observation of heart beat synchronization.	3 days

* Number of days cells were kept alive

Web: www.eicom-usa.com Email: info@eicom-usa.com

Technical Support

Excellent Products + Superior Support = Your Success

At Eicom, your success is our top priority. Our products are easy to use and designed to prevent misuse. We still believe technical support is as important as our products. Please feel free to contact your salesperson with technical questions.

Ordering Information

We accept orders by FAX at any time and by phone during Mon-Fri, 8:00-4:30 pm Pacific Time, excluding holidays. For current customers, emailing orders to your account representative is also acceptable. We accept credit cards, American Express, MasterCard or Visa. We also accept purchase orders with net 30 days after credit evaluation and opening an account.

Shipping

We have inventory for most products in San Diego, California. If we receive your order by 2 pm (Pacific Time) and have those items in stock, we will ship on the same day by 3-day or ground service at our discretion. A standard \$25 shipping and handling fee per shipment will be applied for all small parts and supplies. We can arrange overnight shipping as well. If you require expedited shipping, please call us. Additional charges will be applied for rush orders. Larger equipment ships Fedex Ground. Charges will be pre-paid and added to the invoice.

Warranty

If you discover upon receiving our products that anything is damaged, please notify us immediately. Large equipment shown in this catalog carries a standard 1 year warranty against manufacturing defects. Please refer to our warranty policy on the price quote before placing order for the equipment.

The stereotaxic frames are covered by 2 years limited warranty, and the stereotaxic accessories are covered by 1 year limited warranty.

Please email for more details, info@eicom-usa.com

Discounts

We provide 10% off on orders of plate seals. We also provide the same discount for CX-I-X-0Y and AZ-X-0Y probes as well as their associated parts ordered in quantities of 10 or more.

More Notes

We make custom products for microdialysis and stereotaxic, stagetop incubators. Please let us know your needs.

All Eicom products are for animal research purpose only. Don't apply for diagnosis or clinical use.

Specification information in this catalog is subject to change.

Eicom USA

7098 Miratech Drive, Suite 100, San Diego CA 92121
+1-888-680-7775 info@eicom-usa.com
www.eicom-usa.com

Eicom Europe
Dublin, Ireland
+353-1-902-2700
info@eicom-europe.com
www.eicom-europe.com

Eicom Japan
Kyoto, Japan
+81-75-622-2112
info@eicom.co.jp
www.eicom.co.jp





www.eicom-usa.com