

micrux

TECHNOLOGIES



Flow System Accessories

Fitting Systems

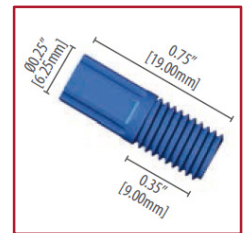


MicruX is able to provide different accessories, from several suppliers, usually required for using the standard thin-film (micro)electrodes in flowing liquids systems.

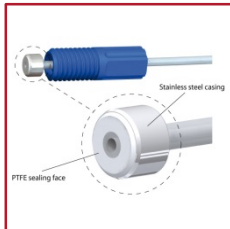
» Fitting nuts – Ref. 008NF16-2100 (5 units/pack)



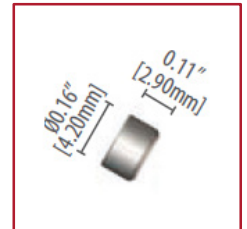
- ❖ Material: polypropylene (PP)
- ❖ Thread size: ¼" – 28 UNF
- ❖ Tubing size: 1/16" OD



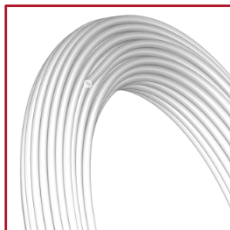
» Ferrules – Ref. 008FT16-2310 (5 units/pack)



- ❖ Material: stainless steel casing & PTFE sealing face
- ❖ Pressure rated up to 1000 psi (69 bar)
- ❖ For 1/16" OD semi-rigid tubing e.g. PTFE, ETFE, FEP
- ❖ For flat-bottom ¼" – 28 UNF ports



» Tubing – Ref. 008T16-0XX (1 m)



- ❖ Material: hardwall PTFE tubing (high chemical resistant)
- ❖ Outer diameter (OD): 1,6 mm (1/16")
- ❖ Inner diameter (ID): 0,8 mm (0,031") - Other options available upon request:
0,3 mm (0,012") – 0,5 mm (0,020") – 1,0 mm (0,039")

Fitting systems (nuts, ferrules, tubing) provided by MicruX are commercialized by Ommnifit® / Diba Industries, Inc. (part of Halma PLC) www.dibaind.com. Items/pictures shown on the sheet are subject to change without prior notice depending on availability.



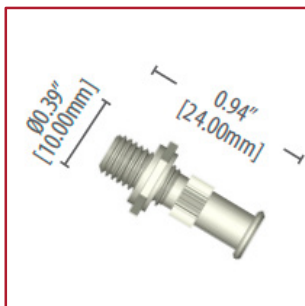
» Luer plastic syringes (5 units/pack)



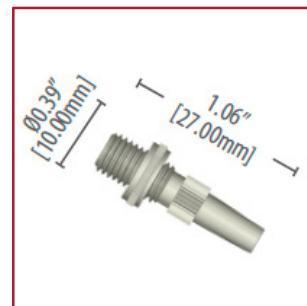
- ❖ Plastic syringes offer a suitable and inexpensive solution for using with syringe pumps.
- ❖ Plastic syringes are available in different sizes (2, 5, 10, 20, 50, 140 mL)
- ❖ Luer-lock and luer-slip plastic syringes are available.
- ❖ Luer syringes can be used with different adaptors, dispensing tips, etc, in flowing liquid systems.

» Adaptors

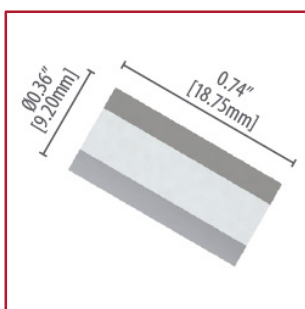
» Adaptor to 1/4" – 28 UNF



- ❖ Different adaptors to male and female Luer are available.
- ❖ The 1/4"-28 UNF adaptors will fit into 1/4"-28 UNF flat bottom ports



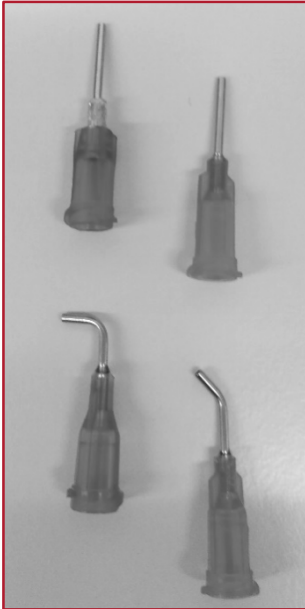
» PP coupling 1/4" – 28 UNF



- ❖ Material: Polypropylene (PP)
- ❖ Thread size: 1/4" – 28 UNF (both sides)
- ❖ Threaded adaptors and unions enable you to connect fitting lines and convert thread sizes quickly and easily.



» Luer-lock dispensing tips (5 units/pack)



- ❖ Dispensing tips consist of a stainless steel shaft with a female luer lock polypropylene (PP) hub. Dispensing tips offer a suitable solution for using with luer lock and luer slip syringe barrels, fittings, dosing valves and luer bottles.
- ❖ Tips are industrial grade safe for use to 100 psi fluid pressures with luer-lock secure attachment for leak free dispensing.
- ❖ Color coded tips (*see table*) are available in 1/2" (12.5 mm) and 1" (25 mm) lengths and gauge sizes from 14 gauge (1.6 mm ID) to 32 gauge (0.10 mm ID). 45 and 90 degree bend precision tips are also available.

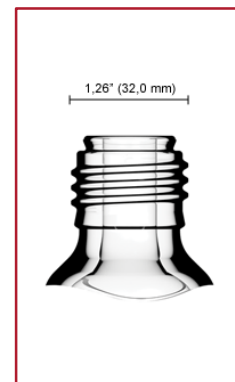
| Gauge | Color | ID (mm) | OD (mm) |
|-------|------------|---------|---------|
| 14 | Olive | 1.60 | 1.82 |
| 15 | Amber | 1.37 | 1.65 |
| 16 | Grey | 1.20 | 1.65 |
| 17 | White | 1.04 | 1.50 |
| 18 | Green | 0.84 | 1.27 |
| 19 | Black | 0.70 | 1.05 |
| 20 | Pink | 0.58 | 0.91 |
| 21 | Purple | 0.51 | 0.81 |
| 22 | Blue | 0.41 | 0.71 |
| 23 | Orange | 0.33 | 0.64 |
| 24 | Light blue | 0.30 | 0.56 |
| 25 | Red | 0.25 | 0.51 |
| 26 | Peach | 0.24 | 0.45 |
| 27 | Clear | 0.20 | 0.41 |
| 28 | White grey | 0.19 | 0.39 |
| 30 | Lavender | 0.15 | 0.30 |
| 32 | Yellow | 0.10 | 0.23 |



» Reservoirs – Ref. GL32



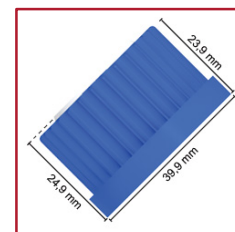
- ❖ Glass bottle
- ❖ Bottle thread: GL32
- ❖ Volume: 50 mL
- ❖ Standard PP cap (without ports)



» Bottle Caps – Ref. 0032T-2



- ❖ Outer cap material: glass-filled polypropylene (PP)
- ❖ Inner sealing face material: PTFE
- ❖ Bottle thread: GL32
- ❖ Ports: 2 x Luer (straight-through tubing – 1/8" OD)



» Other accessories

Other adaptors and connectors such as luer adaptors and plugs, manual valves, syringes, different glass bottles and caps, different fitting materials, nuts, ferrules, etc... as well as other accessories (tweezers, disposable scalpel...) might be supplied on demand.

Accessories, adaptors and connectors provided by MicruX are commercialized by Ommnifit® / Diba Industries, Inc. (part of Halma PLC) www.dibaind.com. Items/pictures shown on the sheet are subject to change without prior notice depending on availability.



» Sample Injection Valve – Ref. 7010



- ❖ Material: stainless steel and an inert polymer
- ❖ Six ports valve with two positions (Inject / Load)
- ❖ 10-32 threaded ports (for 1/16" OD tubing)
- ❖ High volume precision & low volume flow passages
- ❖ Flow passage diameters: 0,6 mm (0,024") and 0,5 mm (0,018")
- ❖ Max. operating pressure: 5000 psi (345 bar)
- ❖ Standard sample loop: 20 µL

Valve is supplied with fittings sets for all ports. Mounting bracket, loop filler port and other sample loops might be supplied on demand.

Sample injector Model 7010 provided by MicruX are commercialized by Rheodyne® (IDEX Health & Science).
www.idex-hs.com

» Multi-channel Peristaltic Tube Pumps – LP series

Peristaltic pumps for transferring micro flow with high precision (non-medical). Different pumps, with different features, are available.

- ❖ Single- & Multi-channel Peristaltic Pumps.



- ❖ Multi-channel pump head.
- ❖ Up to 24 channels.

- ❖ Easy to operate.



- ❖ RS485 communication.



- ❖ Speed: 0.01 – 100 rpm.
- ❖ Flow rate: 0.15 µL/min – 32 mL/min.

Peristaltic pump provided by MicruX are commercialized by Baoding Longer Precision Pump Co, Ltd (part of Halma PLC).
www.longerpump.com



» Syringe Pumps

Syringe pumps offer a suitable solution for high accuracy and small flow rate liquid transferring. Different syringe pumps, with different features, are available.

» Syringe Pumps – LP series

❖ Single- & Dual-channel Syringe Pumps.



- ❖ Infusion / withdrawal mode.
- ❖ Intelligent control of working progress and pump status in real time.

LP Syringe Pumps provided by MicruX are commercialized by Baoding Longer Precision Pump Co, Ltd (part of Halma PLC).
www.longerpump.com

» Syringe Pumps – NE series

❖ Single- & Multi-channel Syringe Pumps.



- ❖ Infusion / withdrawal mode.
- ❖ Operates stand-alone or from a computer.

NE Syringe Pumps provided by MicruX are commercialized by NEW ERA Pump Systems Inc.
www.syringepump.com

Accessory Packs



MicruX has available different packs of accessories for using MicruX' thin-film (micro)electrodes in flow system with the *electrochemical flow-cell* or *All-in-One platform*.

» Basic fitting pack (Ref. B-PACK)

| Part reference | Items | Amount |
|----------------|--|----------------|
| 008NF16-2100 | Fitting nuts (1/4" - 28 UNF - 1/16" OD tubing) | 1 pk (5 units) |
| 008FT16-2310 | Ferrules PTFE/55 (1/4" - 28 UNF - 1/16" OD tubing) | 1 pk (5 units) |
| 008T16-080-1 | PTFE tubing (OD: 1,6mm - 1/16" - ID: 0,8 mm) | 1 m |
| LSP510 | Luer-slip plastic syringes (10 mL) | 5 units |
| DS001 | Disposable scalpel | 1 unit |

» Basic-Plus pack (Ref. B-PACK+)

| Part reference | Items | Amount |
|----------------|---|----------------|
| 008NF16-2100 | Fitting nuts (1/4" - 28 UNF - 1/16" OD tubing) | 1 pk (5 units) |
| 008FT16-2310 | Ferrules PTFE/55 (1/4" - 28 UNF - 1/16" OD tubing) | 1 pk (5 units) |
| 008T16-080-1 | PTFE tubing (OD: 1,6mm - 1/16" - ID: 0,8 mm) | 1 m |
| GL32 | Glass reservoir (GL32 thread - 50 mL) with standard cap | 2 |
| 0032T-2 | Bottle cap (GL32 thread/ 2 x Luer ports) | 2 |
| LSP510 | Plastic syringes (10 mL) | 5 units |
| DS001 | Disposable scalpel | 1 unit |

Accessory Packs



MicruX has available different packs of accessories for using MicruX' thin-film (micro)electrodes in flow systems with the *electrochemical flow cell* or *All-in-One platform*.

» Full system pack (Ref. F-PACK)

| Part reference | Items | Amount |
|---------------------|---|----------------|
| ED-AIO-CELL-1x | AIO platform (Drop + Flow-cell add-on) | 1 unit |
| ED-TF-Electrodes | Standard thin-film microelectrodes | 25 units |
| LP-L100-1E/DG-2(10) | Peristaltic Tube Pump (two channels) | 1 unit |
| 38-OXXX | Standard peristaltic tubes (two different diameters) | 10 units |
| 7010 / 7012 | Injection valve (20 µL loop) with loop fill port | 1 unit |
| 008NF16-2100 | Fitting nuts (1/4" - 28 UNF - 1/16" OD tubing) | 1 pk (5 units) |
| 008FT16-2310 | Ferrules PTFE/SS (1/4" - 28 UNF - 1/16" OD tubing) | 1 pk (5 units) |
| 008T16-080-1 | PTFE tubing (OD: 1,6mm - 1/16" - ID: 0,8 mm) | 1 m |
| GL32 | Glass reservoir (GL32 thread - 50 mL) with standard cap | 2 |
| 0032T-2 | Bottle cap (GL32 thread/ 2 x Luer ports) | 2 |
| LSP510 | Plastic syringes (10 mL) | 5 units |
| D5001 | Disposable scalpel | 1 unit |
| TW001 | Tweezers | 1 unit |
| SP001 | Mounting brackets / panels | 1 set |

Other pack options; with different peristaltic or syringe pumps, accessories..., are also available on demand. Packs might be customized taking into account the specific requirements of customers.



» Electrochemical Platforms

Fitting Systems & related accessories are compatible with MicruX' brand of electrochemical platforms for using the standard thin-film (micro)electrodes and screen-printed electrodes developed by MicruX in dynamic conditions.

» All-in-One Platform

The innovative **All-in-One cell (Ref. ED-AIO-CELL)** provides an **unique multipurpose** interface with **movable add-ons** that can be easily **interchanged** for using the standard (10 x 6 mm) thin-film (micro)electrodes.

The **AIO-cell** enables the use of the thin-film (micro)electrodes in **static (Drop / Batch-cell)** or **dynamic (Flow-cell)** conditions, fulfilling the requirements of **multiple electroanalytical applications**.



» All-in-One Platform Add-ons

Different standard methacrylate (PMMA) **Flow-cell** and **Batch-cell add-ons** are available for using in combination with the AIO platform. Transparent PMMA is a suitable material for most of the analytical applications.

Flow-cell and **Batch-cell add-ons** are also available in PEEK (polyether ether ketone) on demand. PEEK offers advantages for applications where high mechanical and chemical resistance is required.



AIO platform is supplied with an universal cable compatible with any commercial potentiostat



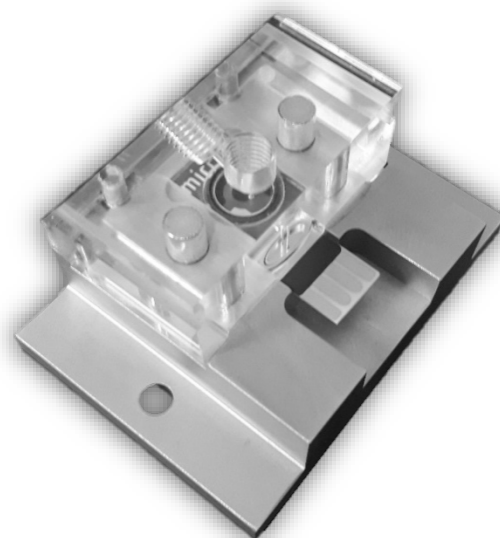
» Electrochemical Platforms

Fitting Systems & related accessories are compatible with MicruX' brand of electrochemical platforms for using the standard thin-film (micro)electrodes and screen-printed electrodes developed by MicruX in dynamic conditions.

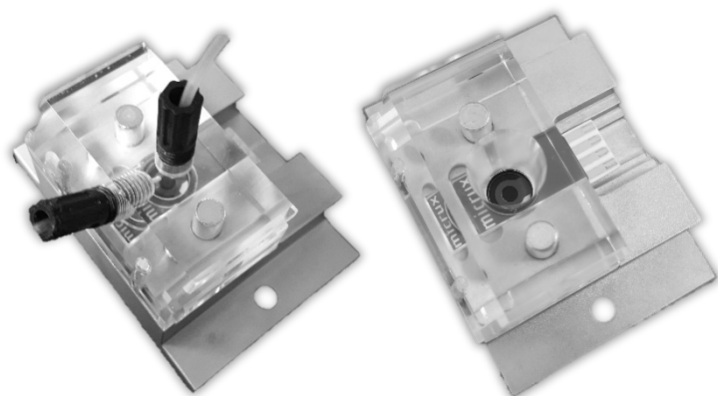
» All-in-One SPE Platform

The innovative **All-in-One SPE cell** (Ref. *ED-AIO-SPE-CELL*) provides an **unique multipurpose** interface with **movable add-ons** that can be easily **interchanged** for using the standard screen-printed electrodes.

The **AIO-cell** enables the use of the screen-printed electrodes in **static** (*Batch-cell*) or **dynamic** (*Flow-cell*) conditions, fulfilling the requirements of **multiple** electroanalytical applications.



» All-in-One SPE Platform Add-ons



Different standard **methacrylate (PMMA)** **Flow-cell** and **Batch-cell add-ons** are available for using in combination with the AIO-SPE platform. Transparent **PMMA** is a suitable material for most of the analytical applications.

AIO-SPE platform is supplied with an universal SPE cable compatible with any commercial potentiostat



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