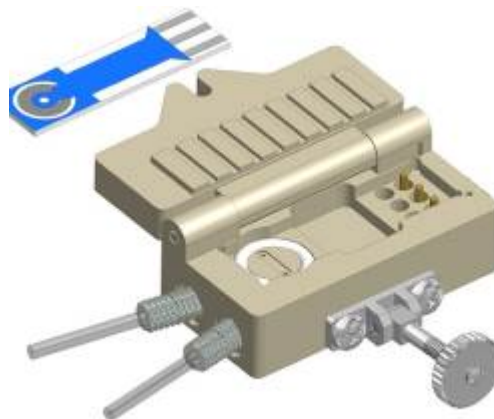


## PEEK FLOW CELL

Type: FC4.TL.\*

### Description

The FC4.TL flow cell is made of PEEK. It has teflon endings permitting a fully compatible connection to chromatography tubing. The flow cell enables the use of sensors in a flow through arrangement. The flow arrangement is **Thin layer cell "TL"** for AC1, AC2, CC1, CC2 and CC3 sensors. The sensor is inserted into the slit of cell and tightened by closing of the door. The cell ensures the wall-jet flow around the working electrode and it is optimised so that no air bubbles cumulate in the cell. The cell contains also the contact and output cable.



### Cell Materials

Polyether ether ketone (PEEK)

### Tube connection

Tube fittings: Ministac 062  
 Tube length: 90 cm  
 Tube I.D.: 0.012"  
 Tubing is included

### Physical Parameters

Dimensions:  
 Weight: 11 gms  
 Length: 42 mm  
 Width: 24 mm  
 Thickness: 16 mm

### Experimental Accessories

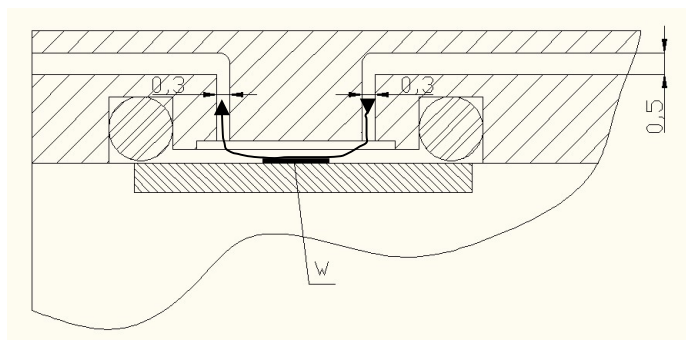
- Peristaltic Pump PP.M
- Linear Pump LP

### Cell Usage

- Flow measurement<sup>3</sup>
- Flow-injection analysis<sup>4</sup>

### Flow Arrangement - Thin layer cell „TL“

The dependence of current on flow is in Matsuda<sup>5</sup>



## References

1. J. Yamada, H. Matsuda, Limiting Diffusion currents in hydrodynamic voltammetry III. Wall jet electrodes, *Electroanalytical Chemistry and Interfacial Electrochemistry*, 44, 1973, 189-198
2. R. Dworak, H. Wendt, Hydrodynamics and Mass Transfer within the Cylindrical Capillary Gap Electrolysis Cell, *Berichte der Bunsen-Gesellschaft* 80 (1976) 77-82
3. J. Krejci, L. Jezova, R. Kucerova, R. Plicka, S. Broza, D. Krejci, The measurement of small flow, *Sensors and Actuators A* 266 (2017) 308-313
4. J. Krejci, R. Sejnohova, V. Hanak, H. Vranova, Screen Printed Electrodes with Improved Mass Transfer, *New perspectives in biosensors technology and applications* (2011) 291-311
5. Matsuda, H., *J. Electroanal. Chem.* 15, 325, (1967)

## Ordering Information

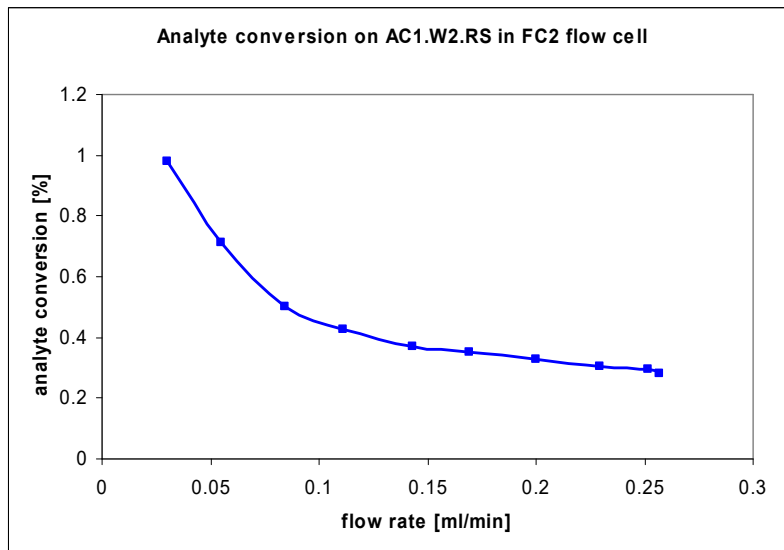
- The order is specified by whole product code
- Minimum order quantity - 1 flow cell
- Delivery time for standard FC4.TL cell is 4 weeks from receipt of order
- Delivery time for non-standard FC4.TL cell depends on final technical specification of order

## Flow cell ordering formula

FC4.TL.\* (Flow cell)

F - Flow	2 - 7 poles BVT connector
C - Cell	3 TRIAD - (Triad01 PalmInstruments)
4 - Cell reference number (PEEK)	3 LEMO4 - (4 pins PalmInstruments)
TL - Thin layer	3 LEMO5 - (5 pins PalmInstruments)
* - Termination	4 - BNC connectors
S - Single conductors	5 - Banana plugs (2 mm), 1.5 m cable
1 - Banana plugs	6 - Banana plugs (2 mm), 0.2 m cable

**Analyte conversion on AC1 electrochemical sensor using FC4.TL cell at different flow rates**



**Example of Order**

- 5 pieces - FC4.TL.1

**Types of Termination** (Three shielded core cable)

Model	Termination	Evaluating Units
FC4.TL.S	Single conductors	any device
FC4.TL.1	Banana plugs 4mm	any device
FC4.TL.2	7 poles BVT connector	any device
FC4.TL.3 TRIAD	Triad01 PalmInstruments	Palmsens, EmStat2
FC4.TL.3 LEMO4	LEMO 4 pins PalmInstruments	Palmsens3, EIS, EmStat3, 3+
FC4.TL.3 LEMO5	LEMO 5 pins PalmInstruments	Palmsens4
FC4.TL.4	BNC connectors	any device
FC4.TL.5	Small banana plugs 2mm	any device
FC4.TL.6	Small banana plugs 2 mm	Electrochemical workstation any device

Internal Wiring

FC4.TL.5



FC4.TL.1



FC4.TL.2



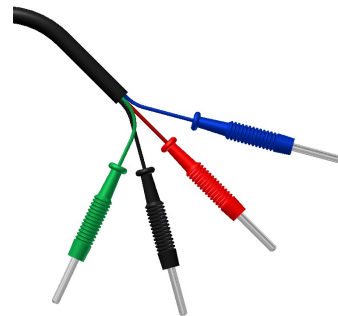
FC4.TL.3 TRIAD  
 FC4.TL.3 LEMO4, FC4.TL.3 LEMO5



FC4.TL.4



FC4.TL.5



FC4.TL.6

