



**DE<sup>TM</sup> DYNAMIC**  
Process Equipment

Retractable Housing Pneumatic  
SmartDip 420P

## SmartDip 420P: Pneumatically Retractable Electrode Housing

SmartDip 420P is a compact retractable electrode housing with pneumatically operated drive Unit. This plastic body model can be implemented in different chemical applications including fermenters and bio-reactors in Bio-pharmaceutical industries. Various type of process connections such as Flange, Triclover, Ingold Fitting and Dairy Fitting are available for mounting on reactor or vessels side nozzle for in-situ measurement or on a T connection in pipe line for in-line measurement. The drive unit inserts the measurement sensor into the reaction mass and retracts back to the flushing chamber for cleaning and storage in stand by condition.

### About Product:

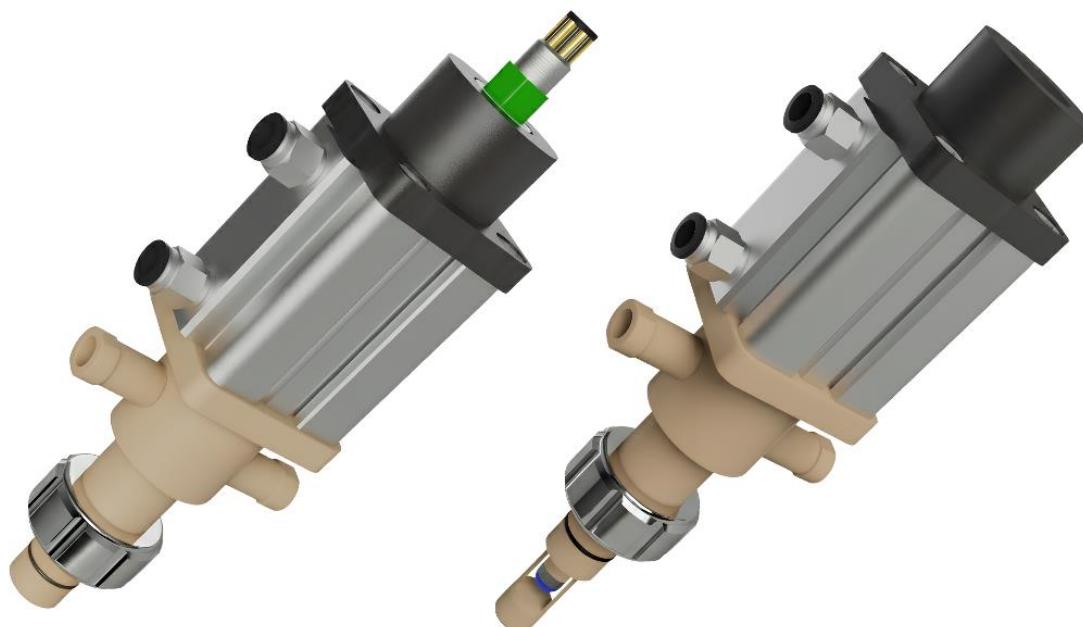
- Available in various material such as PEEK & PVDF for wetted parts.
- Available in various sealing material such as EPDM, VITON, KALREZ.
- Integrated position feedback (Optional)
- Various process connections: Flange size ANSI 1.5" and above, Triclover, G1-1/4" Ingold.
- Immersion length 40mm.
- Stroke length 40mm

### Unique Features:

- Compact design suitable for Bio-pharma, food and dairy industries.
- Fits 225mm long electrodes which are more readily available and durable.
- Longer cleaning path for improved CIP-SIP results.
- Short 40mm stroke length for less wear & tear.
- Scrap & Seal assembly for durability of the sealing material.

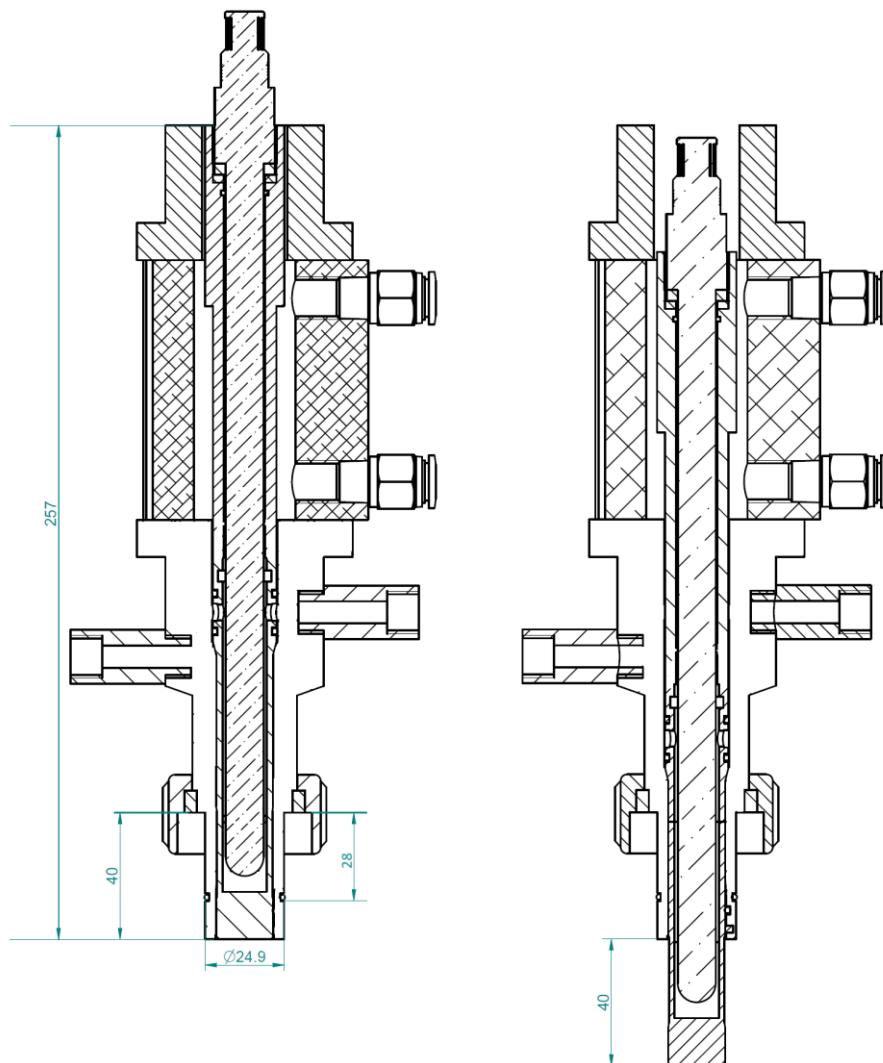
### Benefits:

- Quick and easy Sensor cleaning, calibration or maintenance without process interruption.
- Improved accuracy, reliability and life of process sensors such as pH Electrodes.
- Ease of operation and maintenance of measurement point.
- Plug & Use Modular design for ease of installation and maintenance.
- Usable in hazardous areas and awkward positions.
- Can be fully automated with SmartControl Auto control panel.



**Specification Sheet:**

Model	SmartDip 420P
Pressure	0 to 7 Bar
Process Temperature	up to 140 °C
Immersion Length	40 mm
O-ring position	28 mm
pH/DO Sensor Specs	225mm ø12 PG13.5
Wetted Material	PEEK, PVDF
Seals	EPDM, FPM (Viton), FFKM (Kalrez)
Process Connection	Flange ANSI 1.5" and Above, G11/4" Ingold, TriClover
Flushing Port	G1/4" Female
Operating Air Pressure	4 to 6 Bar
Limit Switch	Pneumatic/Reed Switch



**Application:**

- Bio-Pharma
- Food & Beverages
- Dairy Industry

**Ordering Code:**

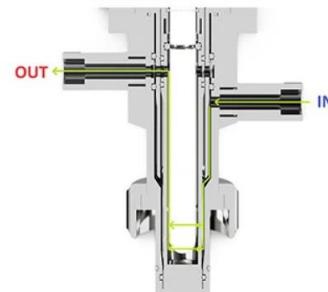
SmartDip 420P	_Code	MOC of Wetted Parts			
	6	PVDF			
	7	PEEK			
		_code	MOC of Seals		
		EP	EPDM		
		VI	VITON (FPM)		
		FK	FFKM (Kalrez)		
			_code	Process Connection	
			F1	Flange ANSI 1-1/2" #150	
			F2	Flange ANSI 2" #150	
			F3	Flange ANSI 3" #150	
			G	Ingold G1-1/4"	
				_code	Position Feedback
				RD	Magnetic Reed Switch
				PN	Pneumatic
				NA	Not Required

## Some unique features of SmartDip Retractable Housings:

### Stroke length

Unique 40mm short stroke length

1



### Scarp & Seal

Unique wiper ring with backup seal arrangement for harsh media.

2

### Flushing Chamber

Unique flushing chamber for optimum electrode cleaning



### INTERCHANGEABLE DRIVE UNIT



Manual  
Drive

Pneumatic  
Drive

3

### Modular Drive Unit

Manual drive unit with ergonomic rotary handle & position interlocks.

Pneumatic drive unit with electrode safety interlock and optional pneumatic or magnetic reed switch feedback.

4

Also check out our range of **Retractable Housings** for Liquid Analytics...



#### SmartDip 405M

SmartDip 405M is a retractable electrode housing with pneumatically operated drive Unit. This metal body model can be implemented in harsh chemical applications through flan...



#### SmartDip 220M

SmartDip 220M is a compact retractable electrode housing with manual drive Unit. This metal body model can be implemented in different chemical applications including ferment...



#### SmartDip 405P

SmartDip 405P is a retractable electrode housing with pneumatically operated drive Unit. This plastic body model can be implemented in harsh chemical applications through flan...



#### SmartDip 250M

SmartDip 250M is a manually operated Retractable electrode housing with long immersion lengths and ball valve for isolation. It can fit 120mm long Sensor.



#### SmartDip 420M

SmartDip 420M is a compact retractable electrode housing with pneumatically operated drive Unit. This metal body model can be implemented in different chemical applicatio...



#### SmartDip 240M

SmartDip 240M is a compact retractable electrode housing. This version can fit 120mm long sensor. It comes with 1" NPT, Triclover connection.



#### SmartDip 450M

SmartDip 450M is a pneumatically operated retractable electrode housing with long immersion length and isolation ball valve. This unique model can fit 120mm long sensor.

