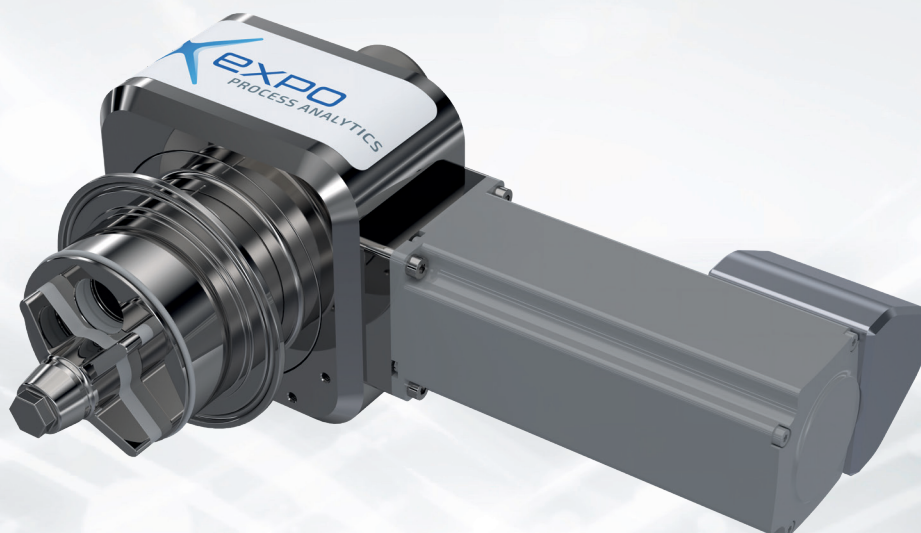


# μSolis™ Data Sheet



Heterogeneous solids are found in a variety of products from pharmaceutical pills or tablets, cereals, or polymer blends. A key challenge in manufacturing heterogeneous solids is the ability to collect a representative sample while it is being produced for quality control or process monitoring purposes. The μSolis™ interface from Expo Process Analytics addresses the challenge of representative sampling for dense heterogeneous solids and enables automated PAT for unit operations such as blending, granulation, or tablet pressing.



The μSolis™ is an inline probe interface. It uses a rotating wheel that captures a representative volume of powder stream for PAT analysis. If used in process development, its ability to vary the rotation speed enables a QbD approach and streamlines analytical development. If used in manufacturing, the variable rotation speed can be changed via a controller to accommodate a variety of powder or granule types, or flow rates without needing to change process hardware. The controlled and quantified sample flow rate results in a defined unit mass that is presented to a PAT probe, resulting in increased process robustness and hands-free operations.



Concept of μSolis in chute – cutaway

## Product Highlights

- ▶ Interface for automated PAT to achieve consistent and representative sampling in dense solid streams
- ▶ Rotating wheel mechanism to collect solids for presentation to PAT probe
- ▶ Flexibility to accommodate a variety of powder or granule types and flow rates
- ▶ ATEX and IP certified
- ▶ Compliant with cGMP requirements for product contact materials
- ▶ Wiping mechanism reduces effects of sample accumulation on probe window

## Technical Specifications

Specifications	$\mu$ Solis™	Control Panel
Dimensions (LxWxH)	255x105x189mm (envelope, without probe)	400x210x500mm
Mass	6.5kg	24kg
Environmental temperature limits	0°C - 40°C	0°C - 45°C
External & Internal working atmosphere	Standard atmospheric conditions	
Supply voltage & frequency	110 – 240 VAC, 50-60 Hz	
External Control/Communication	OPC-UA	
IP Rating	IP65	
ATEX Certification	ATEX Zone 20 Internal ATEX Zone 22 External	
Cable between device & control panel	10 meters, hard-wired	
Pressure rating	10 Barg	
Process vessel connection	DIN32676 DN65 Tri Clamp hygienic connector	
Probe diameter	¾ " / 19.05 mm as standard (Smaller sizes available upon request)	
Minimum probe length	170mm (minimum 200mm recommended for ease of insertion)	
Rotational Speed Range	1rpm – 50rpm (0.5rpm increments)	
Heater available	No	
Motor type	24V Stepper Motor	
Standard wheel type	4 Finger Wheel Supplied as standard	
Torque Limit	0.3 Nm	
Soft product contact components	Food-grade with FDA certificates	
Hard product contact components	316L Stainless Steel with material certificates	
Hard material finish	0.4Ra product contact 0.8Ra non product contact	

Control Panel



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