

IPP 70-Se inline particle-measuring probe

When used as an intrinsically safe probe in combination with a measuring PC, the IPP 70-Se makes it possible to determine the particle size distribution (e.g. Q0, Q3) and the attributes of this distribution (x10, x50, x90, etc.) even in the dense particle streams of potentially explosive processes in zones "0"/"20".

Further technical details and the area of application or comparable with those of probe IPP 70-S. The same accessories for process adaptation can also be used.

The complete measuring system consists of the IPP 70-Se with accessories for process adaptation, the barrier box for Ex-zone separation and a measuring PC with measuring program. The measured results can be made available to a higher-level control system via optional interfaces.



➤ **Technical details**

Particle size measurement range	50...6000 µm
Particle velocity measurement range	0.01...50 m/s
Particle volume concentration	For particles <1 mm, up to approx. 12 vol.%, for larger particles, up to approx. 30 vol.%
Measuring rate	up to 20,000 particles/s
Products	Powder, pellets, granulates, sprays...
Process temperature/pressure	-20°C to +100°C / <4 bar
Material, in contact with product	stainless steel (L316), sapphire, epoxy resin
Probe tube dimensions (length/diameter)	280 x 25 mm
Electronics-housing dimensions (width/height/depth)	120 x 90 x 60 mm
Electronics-housing temperature	-10°C to 60°C
Housing protection class	IP65
Light source	Laser (laser class 1)
Power consumption	2 W (typ.)
Interfaces	Particle distributions and attributes as an ASCII file (Excel compatible), Optional: 4...20 mA, TCP/IP, OPC
ATEX certificate	IBExU02ATEX1009
Probe identification	II 1/2G Ex ia op is IIB T4 Ga/Gb II 1/2D Ex ia op is IIIC T125°C Da/Db
Barrier-box identification	II (1)G [Ex ia Ga] IIB II (1)D [Ex ia Da] IIIC

➤ **Accessories (process interface)**

D24 disperser	For high load/high fine content – particles up to <2000 µm, clearance 3.8 mm
D12 disperser	As for D24, but also for larger particles >2000 µm, clearance 7.5 mm
SZ11, SZ20-4 cleaning cells	With low load for cleaning the probe optics without diluting the flow of particles
Compressed-air unit	Compressed-air supply for the probe when using dispersers or cleaning cells
VS28 anti-wear guard	Tube sleeve with a reinforced hard-chrome coating with a hardness of 68–72 Rockwell

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