

## Optional probes

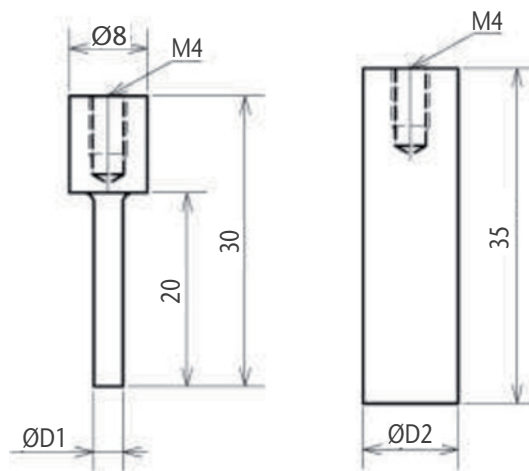
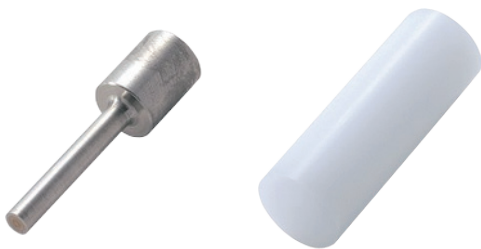
The following probes are suitable for the FCA-DSV-50N series.

We offer a wide range of probes for a variety of tests.

If necessary, you can obtain probes and measuring tables in other sizes.

### Cylindrical probe FR-EC

Stick shaped for testing the indentation force

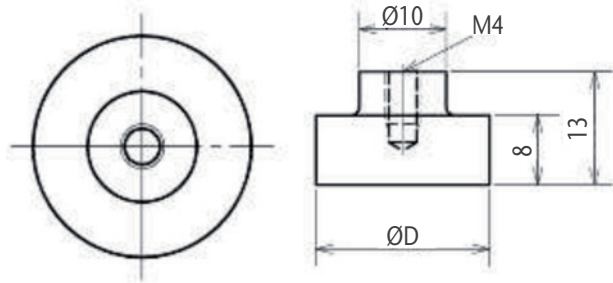


Model	FR-EC-3J	FR-EC-3S	FR-EC-5J	FR-EC-5S
Diameter (D1)	3 mm		5 mm	
Material	Polyacetal	Stainless steel	Polyacetal	Stainless steel
Weight	2 g	11 g	2 g	23 g
Capacity	50 N	100 N	50 N	100 N

Model	FR-EC-8J	FR-EC-10J	FR-EC-12.7J	FR-EC-15J
Diameter (D2)	8 mm	10 mm	12.7 mm	15 mm
Material	Polyacetal			
Weight	4 g		6 g	9 g
Capacity	50 N			

### Disc probe FR-HA

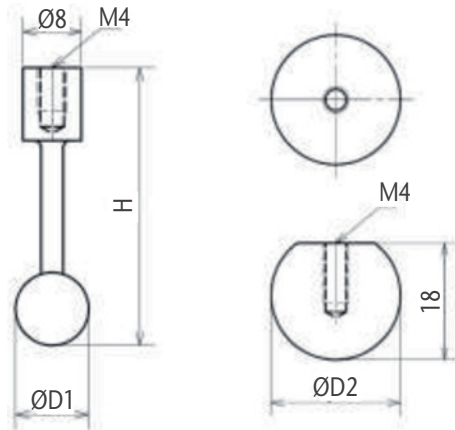
Disc probe for compression tests on a larger area of the sample



Model	FR-HA-20J (Standard accessories FCA-50N1 and FRTS)	FR-HA-20S	FR-HA-30J	FR-HA-50J
Diameter (D)	20 mm		30 mm	50 mm
Material	Polyacetal	Stainless steel	Polyacetal	
Weight	4 g	23 g	9 g	23 g
Capacity	50 N	100 N	50 N	

### Sphere probe FR-SR

Sphere shaped probe for crushing tests



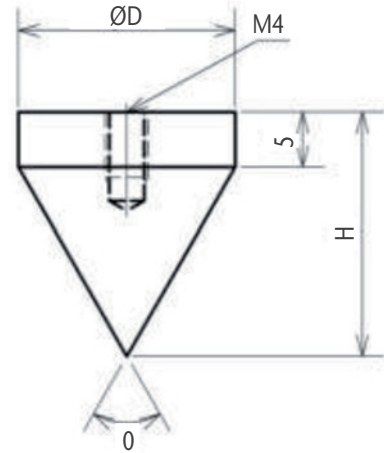
Design A

Design B

Model	FR-SR-5SJ	FR-SR-7SJ	FR-SR-10SJ	FR-SR-20SJ
Diameter (D)	5 mm	7 mm	10 mm	20 mm
Height (H)	35 mm	35 mm	38 mm	18 mm
Material	Stainless steel			
Weight	5 g	6 g	9 g	32 g
Capacity	100 N			
Design	A			B

### Conical probe FR-ES

Conical probe for testing the penetration force

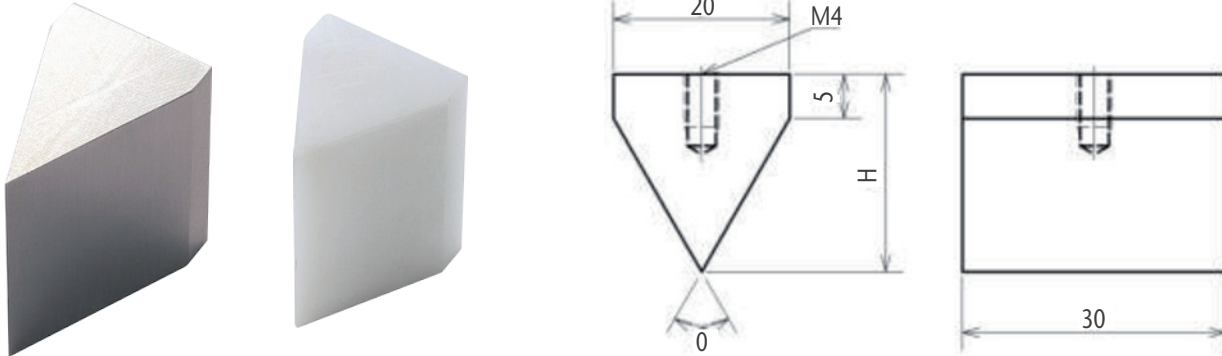


Model	FR-ES-45-20J	FR-ES-45-30J
Angle ( $0$ )	45°	
Diameter (D)	20 mm	30 mm
Height (H)	29.1 mm	41.2 mm
Material	Polyacetal	
Weight	4 g	13 g
Capacity	50 N	

Model	FR-ES-60-20J	FR-ES-60-20S	FR-ES-60-30J
Angle ( $0$ )	60°		
Diameter (D)	20 mm		30 mm
Height (H)	22.5		
Material	Polyacetal	Stainless steel	Polyacetal
Weight	3 g	19 g	10 g
Capacity	50 N	100 N	50 N

## Wedge probe KS

Suitable for stiffness measurement



Model	FR-KS45-2030J	FR-KS45-2030S	FR-KS60-2030J (Standard accessory FCA-DSV-50N-2)	FR-KS60-2030S
Angle ( $\theta$ )	45°		60°	
Height (H)	29 mm		22 mm	
Material	Polyacetal	Stainless steel	Polyacetal	Stainless steel
Weight	53 g	70 g	10 g	53 g
Capacity	50 N	100 N	50 N	100 N