

Specifications of DF800S Series

Specifications		
Model	DF805SR, DF805SFR	DF805SLR, DF805SFLR
Measuring range	5 mm	
Resolution	0.1 μm	
Accuracy (at 20 °C)	1 μm p-p	
Measuring force (at 20 °C)	Upward : 0.35 \pm 0.25 N	
	Horizontal : 0.40 \pm 0.25 N	
	Downward : 0.45 \pm 0.25 N	
Maximum response speed	80 m/min	
Reference point	at 1 mm \pm 0.5 mm position of spindle movement	
Reference point response speed	80 m/min	
Output	Dedicated serial communication protocol	
Spindle driving	Spring push	Spring push / Vacuum suction
Protection grade *1	Straight type: IP67 / Right angle type: IP64 (IP67 *2)	
Vibration resistance	100 m/s ² (20 to 2,000 Hz)	
Impact resistance	1,000 m/s ² (11 ms)	
Operating temperature	0 to +50 °C (no condensation)	
Storage temperature	-20 to +60 °C (90 %RH or less)	
Power supply voltage	+10 to +30 V DC	
Power consumption	1.2 W or less	
Mass *3	Approx. 30 g (not including cable parts and interpolation box)	
Probe part cable length	2 m	
Output cable length	Max. 20 m (Use the optional CE34.)	
Feeler	Carbide ball tip, Mount screw M2.5	
Accessories	Instruction manual, wrench, hose elbow (only DF8**S*L**) tightening nut, clamp wrench, wave washer, stop pin (1 each) (only DF8**S*F**)	

*1 Excluding the interpolation box and connector

*2 When Φ 4 mm tube is used in the right angle type

*3 Excluding interpolation box and connector

Magnescape reserves the right to change product specifications without prior notice.

Specifications

Model	DF812SR, DF812SFR	DF812SLR, DF812SFLR	DF812SVR
Measuring range	12 mm		
Resolution	0.1 μ m		
Accuracy (at 20 °C)	1 μ m p-p		
Measuring force (at 20 °C)	Upward : 0.4 \pm 0.3 N 0.6 \pm 0.5 N (Pneumatic push type) Horizontal : 0.5 \pm 0.3 N 0.7 \pm 0.5 N (Pneumatic push type) Downward : 0.6 \pm 0.3 N 0.8 \pm 0.5 N (Pneumatic push type) Air pressure : 0.055 MPa		
Maximum response speed	80 m/min		
Reference point	at 1 mm \pm 0.5 mm position of spindle movement		
Reference point response speed	80 m/min		
Output	Dedicated serial communication protocol		
Spindle driving	Spring push	Spring push / Vacuum suction	Pneumatic push
Protection grade *1	Straight type: IP67, right angle type: IP64 (IP67 *2)		
Vibration resistance	100 m/s ² (20 to 2,000 Hz)		
Impact resistance	1,000 m/s ² (11 ms)		
Operating temperature	0 to +50 °C (no condensation)		
Storage temperature	-20 to +60 °C (90 %RH or less)		
Power supply voltage	+10 to +30 V DC		
Power consumption	1.2 W or less		
Mass *3	Approx. 30 g (not including cable parts and interpolation box)		
Probe part cable length	2 m		
Output cable length	Max. 20 m (Use the optional CE34)		
Feeler	Provided with a carbide ball tip Mount screw M2.5		
Accessories	Instruction Mmanual, wrench, hose elbow (only DF8**S*L**)		
	tightening nut, clamp wrench, wave washer, stop pin (1 each) (only DF8**S*F**)		

*1 Excluding interpolation box and connector

*2 When Φ 4 mm tube is connected for right angle type

*3 Excluding cable section and interpolation box

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Specifications * Made to Order

Model	DF830SLR	DF830SVR
Measuring range	30 mm	
Resolution	0.1 μm	
Accuracy (at 20 °C)	1.3 μm p-p	1.7 μm p-p
Measuring force (at 20 °C)	Upward : 0.5 \pm 0.35 N Horizontal : 0.6 \pm 0.35 N Downward : 0.7 \pm 0.35 N	Air presser 0.07 Mpa 1.9 N or less for all direction Air presser 0.09 Mpa 2.6 N or less for all direction
Maximum response speed	80 m/min	
Reference point	at 1 mm \pm 0.5 mm position of spindle movement	
Reference point response speed	80 m/min	
Output	Dedicated serial communication protocol	
Protection grade *1	IP53 When using DZ830BL : IP67	IP53 When using DZ830BV : IP67
Vibration resistance	100 m/s ² (20 to 2,000 Hz)	
Impact resistance	1,000 m/s ² (11 ms)	
Operating temperature	0 to +50 °C (no condensation)	
Storage temperature	-20 to +60 °C (90 %RH or less)	
Power supply voltage	DC +10 to +30 V	
Power consumption	1.2 W or less	
Mass *2	Approx. 80 g (not including cable parts and interpolation box)	
Probe part cable length	2 m	
Output cable length	Max. 20 m (Use the optional CE34)	
Feeler	Carbide ball tip, Mount screw M2.5	
Accessories	Instruction manual, wrench	

*1 Excluding interpolation box and connector

*2 Excluding cable section and interpolation box

* For the output cable, use CE34 (sold separately). (Cable length: Max. 20 m)

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