

# Integrated Probe Assembly

Standard / Threaded / Resin Sleeve

**Integrated Probe Assembly – Standard**

RoHS10

**GNP6  
GNP8  
GNP12**

Tip Shape Selection

Applicable Terminal P.1980

Part Number	d	d <sub>1</sub>	d <sub>2</sub>	d <sub>3</sub>	d <sub>4</sub>
GNP6	0.6	0.65	0.5	(0.45)	0.3
GNP8	0.8	0.8	0.6	(0.55)	0.4
GNP12	1.2	1.25	1.05	(0.95)	0.8

No.	Part	Material	Surface Treatment
(1)	Plunger	W1-9 Tool Steel	Gold Plating on Nickel Undercoat
(2)	Spring	SWP	Gold Plating
(3)	Sleeve	Brass*	Gold Plating on Nickel Undercoat
(4)	Collar	Brass	Nickel Plating

\*The material of GNP6 is Phosphor Bronze.

Ⓢ The matching end also strokes according to the stroke of the contact component.

**GNP6 / GNP8 / GNP12 Tip Shapes**

**A**

**B**

**C**

**G**

**H**

**Integrated Probe Assembly – Threaded**

RoHS10

**FNP10  
FNP10N With Nut  
FNP10HDN With Nut**

Tip Shape Selection

Applicable Terminal P.1980

No.	Part	Material	Surface Treatment
(1)	Plunger	W1-9 Tool Steel	Gold Plating on Nickel Undercoat
(2)	Spring	SWP	Gold Plating
(3)	Sleeve	W1-9 Tool Steel	Nickel Plating
(4)	Collar	Brass	Gold Plating on Nickel Undercoat

Part	Material	B	(e)	T
Nut (FNP10N)	304 SS Equivalent	4	4.6	1.6
Nut (FNP13N)	304 SS Equivalent	5	5.8	2

Ⓢ The matching end also strokes according to the stroke of the contact component.

**FNP10 / FNP10N / FNP10HDN Tip Shapes**

**A15**

**D15**

**E15**

**A18**

**D18**

**E18**

**FNP13 / FNP13N / FNP13HDN Tip Shapes**

**A**

**D**

**E**

**Integrated Probe Assembly – Resin Sleeve**

RoHS10

**FNP22SF  
FNP22**

Tip Shape Selection

Applicable Terminal P.1980

No.	Part	Material	Surface Treatment
(1)	Plunger	W1-9 Tool Steel	Nickel Plating
(2)	Sleeve	Polyacetal	—
(3)	Spring	Stainless	—

\*For TH shape, this dimension is 34.0.

Ⓢ The matching end also strokes according to the stroke of the contact component.

**FNP22SF / FNP22 Tip Shapes**

**A**

**C**

**H (Quartered)**

**TH**

Ⓢ For Shape A, the material of head and shaft is brass and W1-9 Tool Steel respectively.

Ⓢ For Shape TH, the material of holder is BS and that of needle is SWRH.

**FNP40SF / FNP40 Tip Shapes**

**A**

**C**

**H (Quartered)**

**TH**

Ⓢ For Shape A, the material of head and shaft is W1-9 Tool Steel and SWRH respectively.

Ⓢ For Tip Shape C, the material of plunger is SWRH.

Ⓢ For Shape TH, the material of holder is BS and that of needle is SWRH.

# Integrated Probe Assembly

Spring Built-In / Threaded

**Integrated Probe Assembly – Built-In Spring**

RoHS10

**FNPS22**

Tip Shape Selection

Applicable Terminal P.1980

No.	Part	Material	Surface Treatment
(1)	Head	Brass	Electroless Nickel Plating
(2)	Plunger	SWRH	Nickel Plating
(3)	Bearing	Brass	Electroless Nickel Plating
(4)	Collar	Stainless Steel	—
(5)	Spring	SWP	Gold Plating
(6)	Sleeve	German Silver	Electroless Nickel Plating

Ⓢ The matching end also strokes according to the stroke of the contact component.

**FNPS22 Tip Shapes**

**A**

**B**

**C**

**H**

**TH**

Ⓢ For Shape TH, the material of holder is BS and that of needle is SWRH.

**FNPS35 Tip Shapes**

**A**

**B**

**C**

**H**

**Integrated Probe Assembly – Threaded**

RoHS10

**MNP50**

Tip Shape Selection

Accessories: Nut (2 pcs.)

No.	Part	Material	Surface Treatment
(1)	Plunger	W1-9 Tool Steel	Gold Plating on Nickel Undercoat
(2)	Spring	SWP	Gold Plating
(3)	Sleeve	Brass	Gold Plating on Nickel Undercoat
(4)	Collar	Brass	Nickel Plating
(5)	Nut	Stainless Steel	—

Ⓢ The matching end also strokes according to the stroke of the contact component.

**MNP50 Tip Shapes**

**A**

**B**

**C**

**G**

**G8**

**J**

Part Number	Mounting Pitch (min.)	Full Stroke	Spring Pressure		Allowable Current	Resistance	Replacement Cycle (Reference)	Mounting Hole for Press-Fitting Dimension (Reference)
			Initial	2/3 Stroke				
GNP6	0.8 mm	3.4	26 fg	80 fg	0.5A	50 mΩ	100,000 times	0.48–0.5 mm
GNP8	1.0 mm	3.4	23 fg	80 fg	1A			0.58–0.6 mm
GNP12	1.5 mm	4.0	32 fg	95 fg	3A			1.03–1.05 mm
FNP10	3.0 mm (6.0 mm)	4.5	60 fg	105 fg	3A	80 mΩ	300,000 times	M2 x 0.25
FNP10N (with Nut)			56 fg	175 fg				
FNP10HDN (with Nut)	5.0 mm (7.0 mm)	4.0	60 fg	100 fg	3A	80 mΩ	300,000 times	M2.5 x 0.35
FNP13 (with Nut)			58 fg	175 fg				
FNP13HDN (with Nut)	3.0 mm	7.0	0 fg	100 fg	3A	80 mΩ	300,000 times	1.98–2.00 mm
FNP22SF			150 fg	220 fg				
FNP22	5.0 mm	17.0*	0 fg	300 fg	3A	80 mΩ	300,000 times	3.48–3.50 mm
FNP40SF			180 fg	200 fg				
FNP40	3.0 mm	8.0	51 fg	180 fg	3A	80 mΩ	300,000 times	1.98–2.00 mm
FNPS22	4.0 mm	8.0	66 fg	200 fg				
FNPS35	7.0 mm < 9.0 mm >	7.6	228 fg	455 fg	5A	35 mΩ	300,000 times	4.18–4.2 mm

Ⓢ Mounting Pitches in ( ) are applicable to the contact probes with nut.

Ⓢ MNP50 mounting pitches in < > are applied to G8 tip shape.

\*Tip shape A is 14.0 mm and TH is 9.5 mm.

**Part Number Example**

Part Number	Tip Shape
GNP12	G
FNP10N	E15
FNP13	A
MNP50	G8

