

■ Universal Ku-band 2LO PLL LNB (Switchable Local) - External Reference -

MODEL No. **NJR2841E/42E/43E** series

< **Features** >

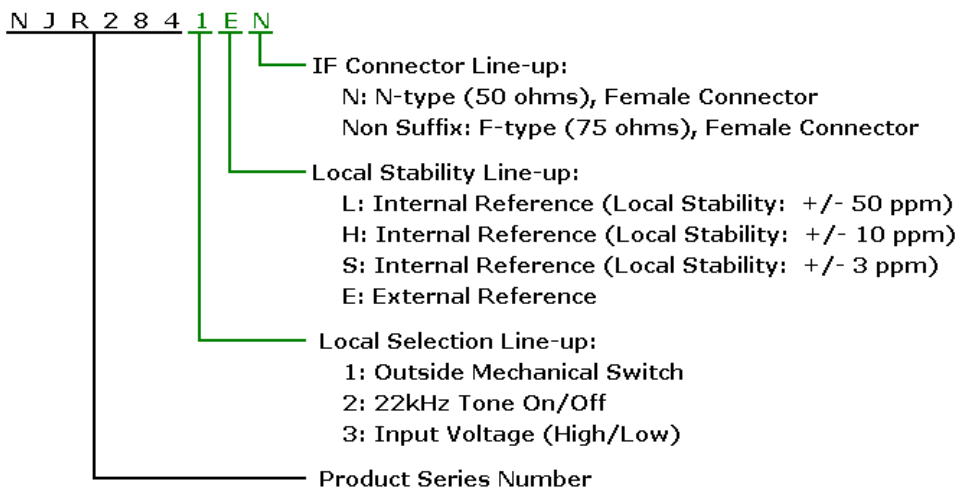
- \* **Switchable Local**
  - Local Frequency: 9.75 / 10.6 GHz
- \* **Full Ku-band Coverage**
  - RF Frequency: 10.70 – 12.75 GHz  
 (Low Band) 10.70 – 11.70 GHz  
 (High Band) 11.70 – 12.75 GHz
- \* **Local Switching Line-up**
  - Local Frequency Selected by
    - Mechanical Switch: NJR2841 series
    - 22kHz Tone On/Off: NJR2842 series
    - Input Voltage (High/Low): NJR2843 series
- \* **Small Size & Light Weight**
  - Weight: 240 g (N-type Connector Model)
  - Weight: 210 g (F-type Connector Model)
- \* **RoHS Compliance**



< **Line-Up** >

Model No.	RF Frequency	Local Frequency	IF Connector	Local Stability	Local Frequency Selected by	IF Connector
NJR2841E	10.70 to 11.70 GHz / 11.70 to 12.75 GHz	9.75 GHz / 10.6 GHz	950 to 1,950 MHz / 1,100 to 2,150 MHz	Depends on External Reference	Mechanical Switch	F-type
NJR2841EN						N-type
NJR2842E					22kHz Tone On/Off	F-type
NJR2842EN						N-type
NJR2843E					Input Voltage (High/Low)	F-type
NJR2843EN						N-type

**Model Numbering**


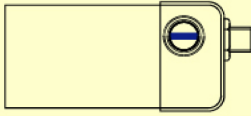


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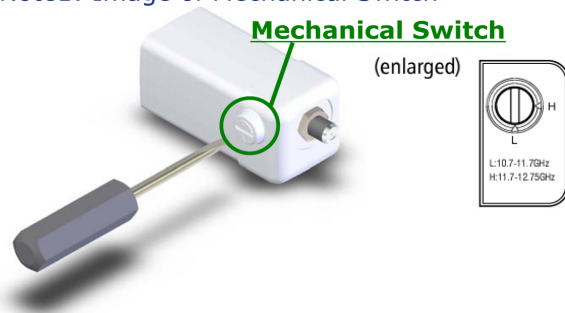
## < Specifications >

Item	Specifications
Input Interface	Waveguide, WR75 (with Groove)
Output Interface	N-type, female (50 ohm) [Model No.: NJR2841EN/42EN/43EN] F-type, female (75 ohm) [Model No.: NJR2841E/42E/43E]
Noise Figure at +25 C	0.8 dB typ., 1.0 dB max.
Linear Gain (Ta.: +25 C)	48 dB min., 62 dB max.
L.O. Phase Noise (SSB)	-50 dBc/Hz typ. @ 100 Hz, -70 dBc/Hz typ. @ 1 kHz -75 dBc/Hz typ. @ 10 kHz, -85 dBc/Hz typ. @ 100 kHz Depends on phase noise of external reference
L.O. Leakage Level	-40 dBm max. at the IF Output Connector -60 dBm max. at the RF Input Flange
Spurious	a) -120 dBm max. at input, fixed frequency spur, unrelated to test CW signal (Measured at specified IF band). b) -40 dBc typ. with test CW signal -10 dBm IF output (Measured at specified IF band).
Input V.S.W.R.	2.5 : 1 typ.
Output V.S.W.R.	2.3 : 1 max.
Power Requirement	+24 VDC (+10 to +24 VDC)
Current Drain	200 mA max.
Temperature Range (ambient)	-40 to +60 C (operating), -40 to +80 C (storage)
Dimension & Housing ( without Interface Connectors / Switch)	83.4 mm (L) x 42 mm (W) x 42 mm (H) [Model No.: NJR2841E/41EN] [3.28" (L) x 1.65" (W) x 1.65" (H)] 82.2 mm (L) x 40 mm (W) x 40 mm (H) [Model No.: NJR2842E/42EN/43E/43EN] [3.24" (L) x 1.57" (W) x 1.57" (H)]
Weight	240 g [0.53 lbs] [Model No.: NJR2841EN/42EN/43EN] 210 g [0.46 lbs] [Model No.: NJR2841E/42E/43E]

### Specifications of Local Switch

	RF Frequency	
	Low Band (10.7 to 11.7 GHz)	High Band (11.7 to 12.75 GHz)
Mechanical Switch	Initial Set 	
22kHz Tone On/Off	Tone Level: 0 to 0.2 Vp-p	Tone Level: 0.4 to 0.8 Vp-p
Input Voltage High/Low	Voltage: +10 to +14 VDC	Voltage: +15.5 to +24 VDC

Note1: Image of Mechanical Switch

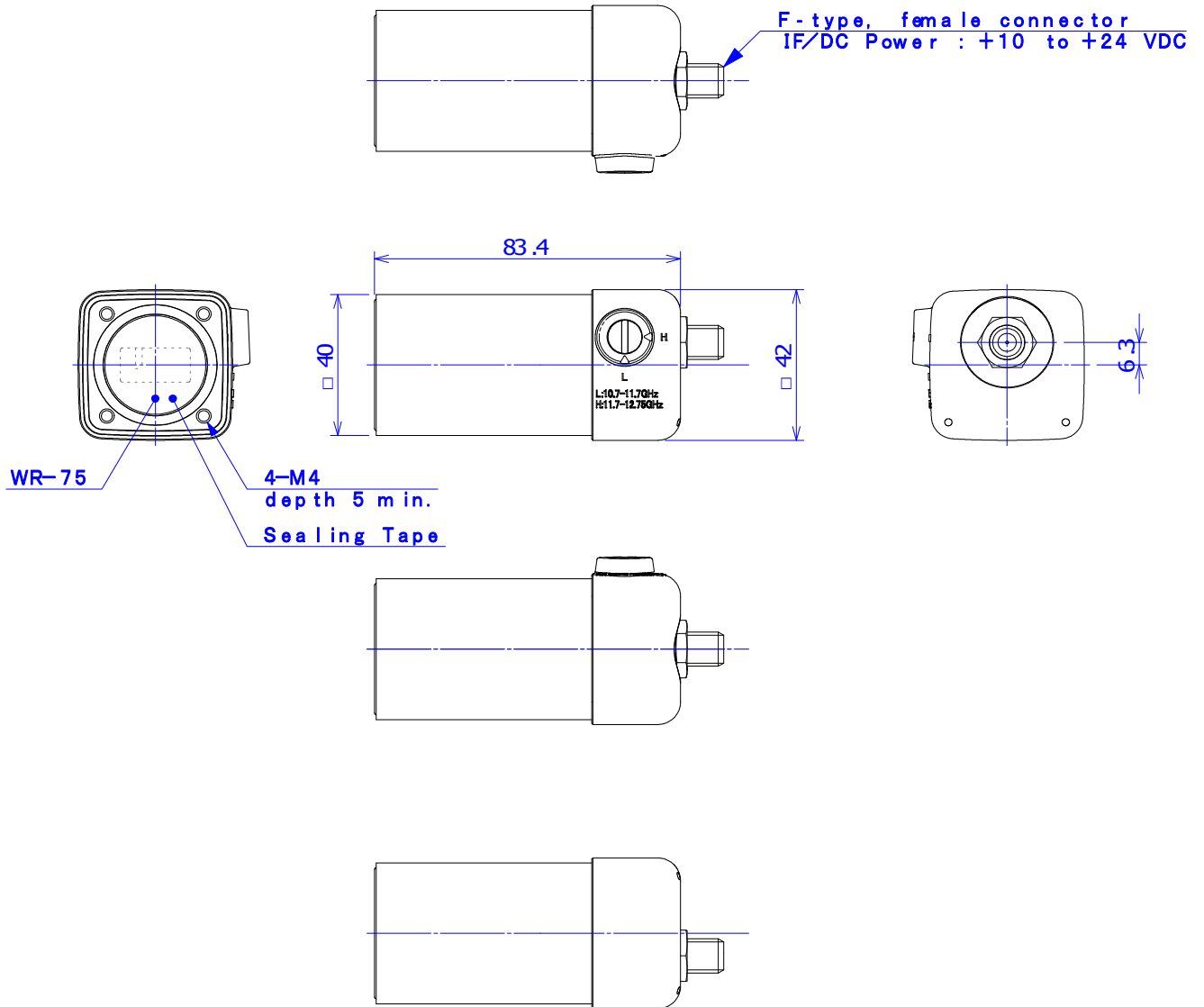


Note2: Specification of 22 kHz Tone

Input Port: IF Output Connector  
 (Combine DC Supply with IF Signal)  
 Wave Form: Square-wave  
 Frequency: 22 +/- 4 kHz  
 Duty Cycle: 30 to 70 %

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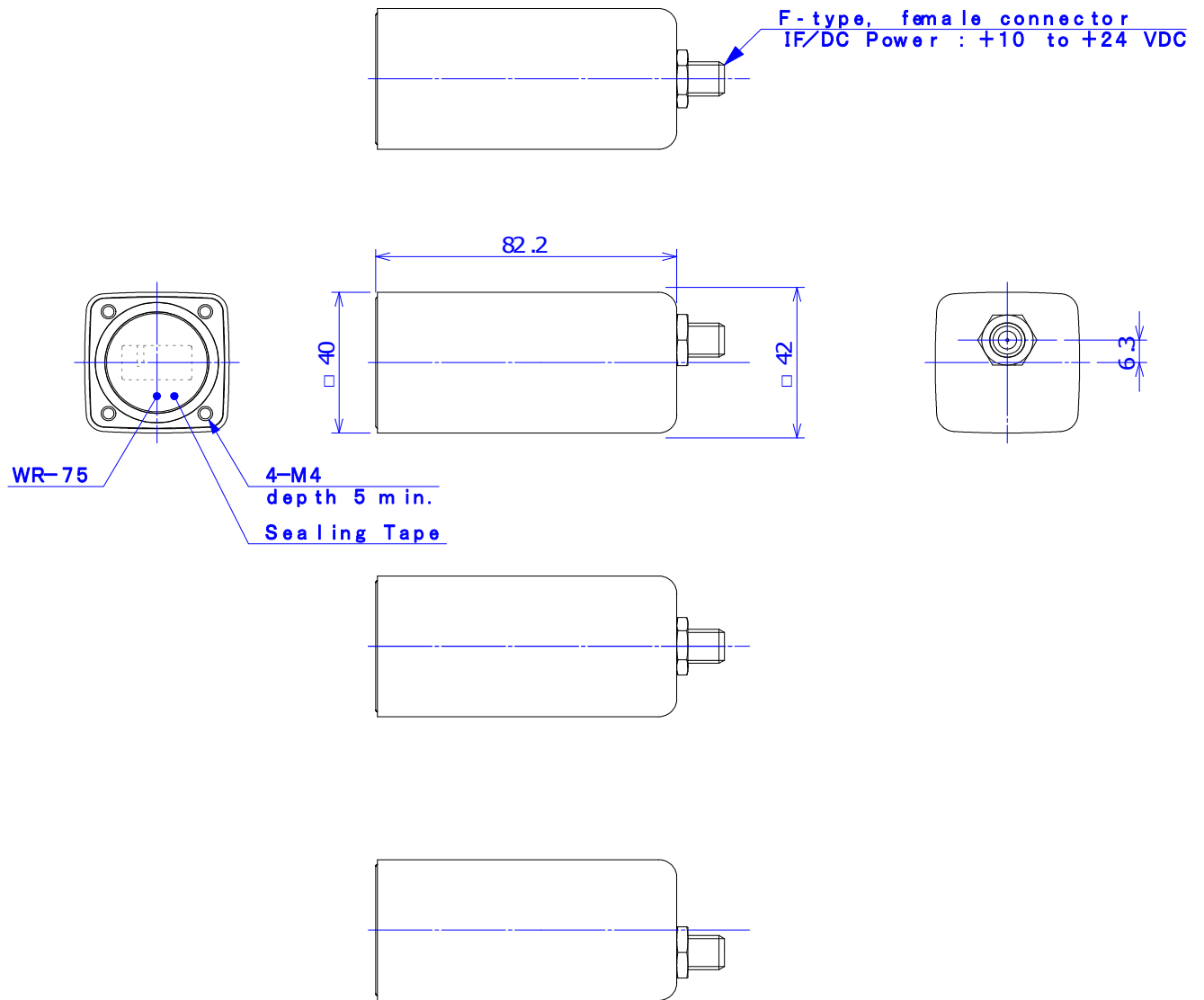
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**NJR2841E**



Unit: mm

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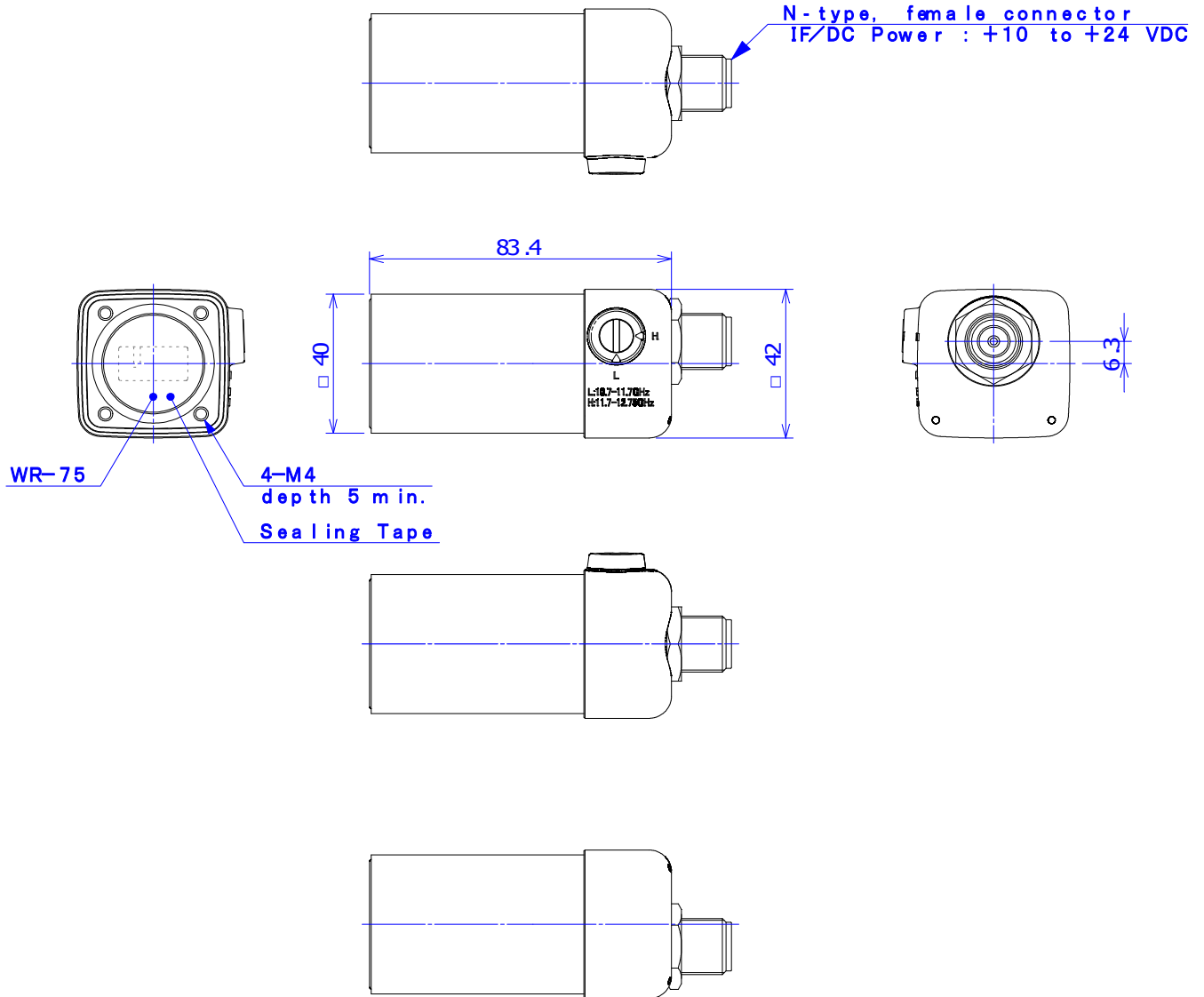
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**NJR2842E/43E**



Unit: mm

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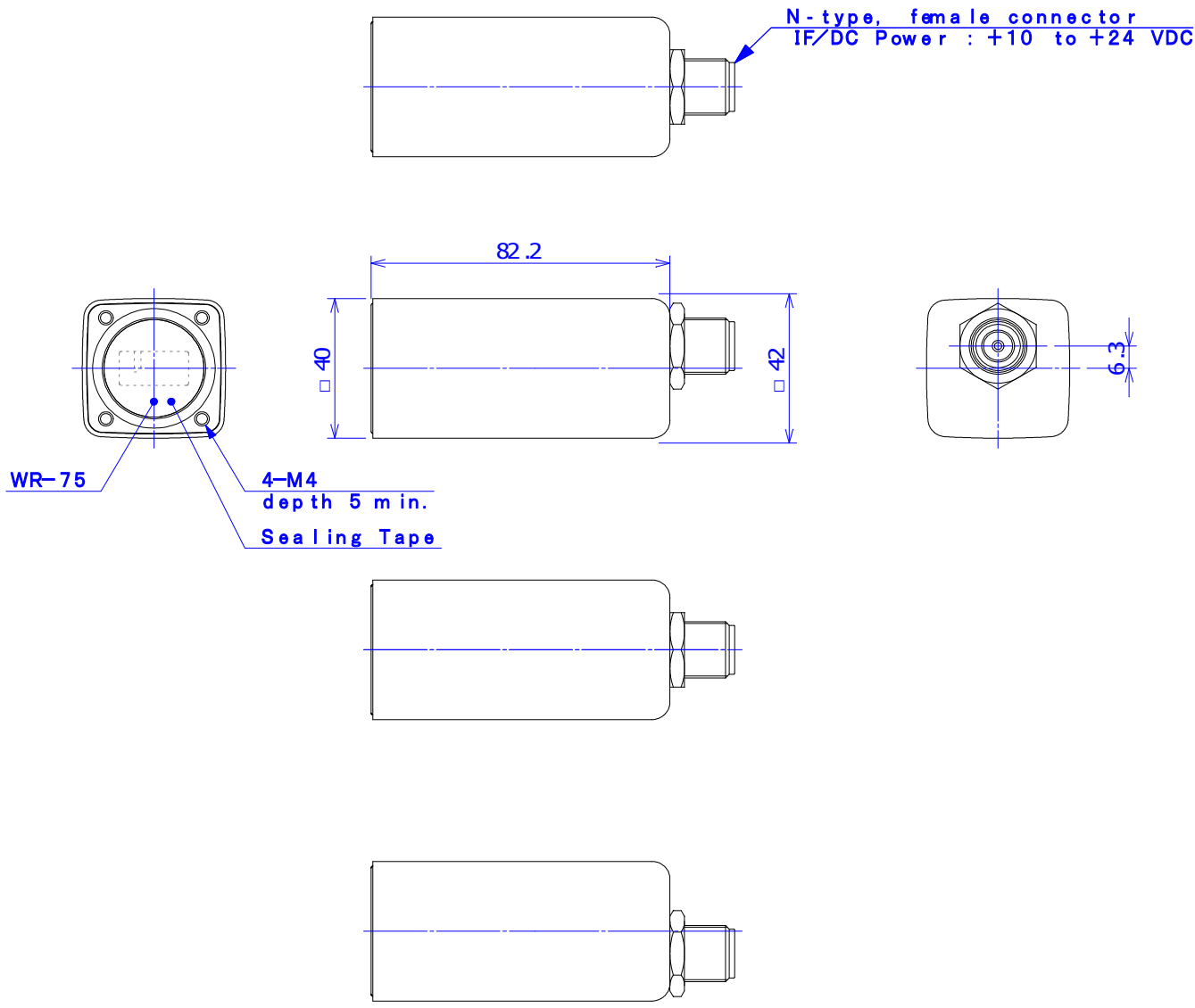
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**NJR2841EN**



Unit: mm

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**< Outline Drawing >**  
**NJR2842EN/43EN**



Unit: mm