

CABLINE®-UA II

The simulation of passing PLUG through hinge

Part No. Plug: 20496-#**T-#0

Technical Report

0	R21111	2021/02/25	S. Yamaguchi	T. Tanigawa	H. Ikari
Rev.	ECN	Date	Prepared by	Checked by	Approved by

CABLINE-UA II The simulation of passing PLUG through hinge

1. Purpose
- We report the simulation results of the minimum diameter of the hinge that can store the connector(CABLINE-UA II Plug) and cable.
2. Simulation conditions
- Connector : CABLINE-UA II PLUG CABLE ASS'Y (20496-#**T-#0)

✕The simulation was performed at 20496-#**T-40 have the same result as -30.

• Number of pins : 50P, 40P, 32P, 26P

• Cable : MICRO-COAX CABLE AWG#42,44,46 (See Table.1 for jacket diameter)

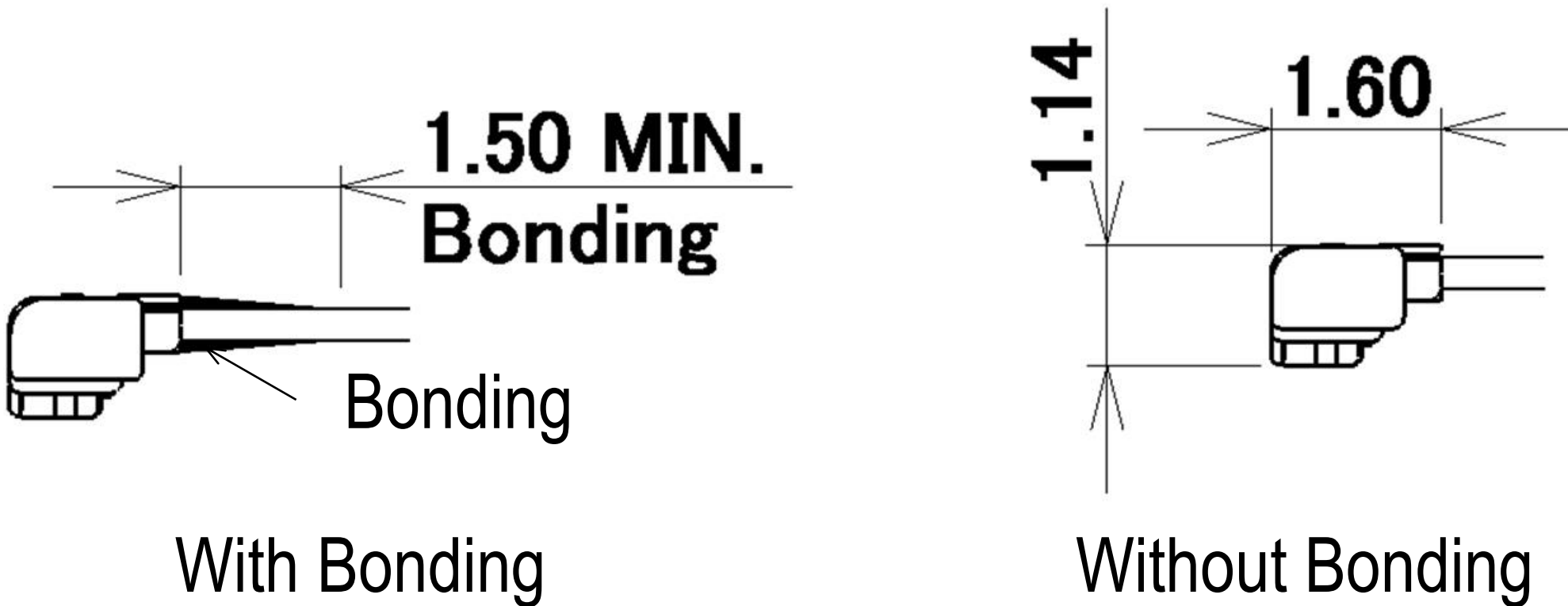
✕Each simulation is connected to all Pins.

• Bonding : CABLINE-UA II recommend bonding cable outlets.

When bonding, be sure to bend the cable from the end of the bonding.

Table.1 Cable jacket(outer) diameter (mm)

AWG#	Impedance matching	
	45ohm	50ohm
42	0.29	
44	0.24	
46	0.22	0.24



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3. Simulation result

The simulation results are shown in Table.2 and 3.

✕See the next page for details.

Table.2 Minimum hinge inner diameter with bonding (mm)

Cable	Size	AWG#42	AWG#44		AWG#46	
	Impedance matching	45ohm	45ohm	50ohm	45ohm	50ohm
	Jacket diameter	0.29	0.24	0.26	0.22	0.24
Minimum hinge inner diameter	Connector 26P	3.96	3.91	3.93	3.89	3.91
	Connector 32P					
	Connector 40P					
	Connector 50P					

Table.3 Minimum hinge inner diameter without bonding (mm)

Cable	Size	AWG#42	AWG#44		AWG#46	
	Impedance matching	45ohm	45ohm	50ohm	45ohm	50ohm
	Jacket diameter	0.29	0.24	0.26	0.22	0.24
Minimum hinge inner diameter	Connector 26P	2.65	2.50	2.55	2.46	2.50
	Connector 32P	2.76	2.55	2.64	2.49	2.55
	Connector 40P	2.93	2.64	2.75	2.55	2.64
	Connector 50P	3.11	2.77	2.91	2.67	2.77

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.1 With bonding

Simulation results with AWG #42 (45ohm).

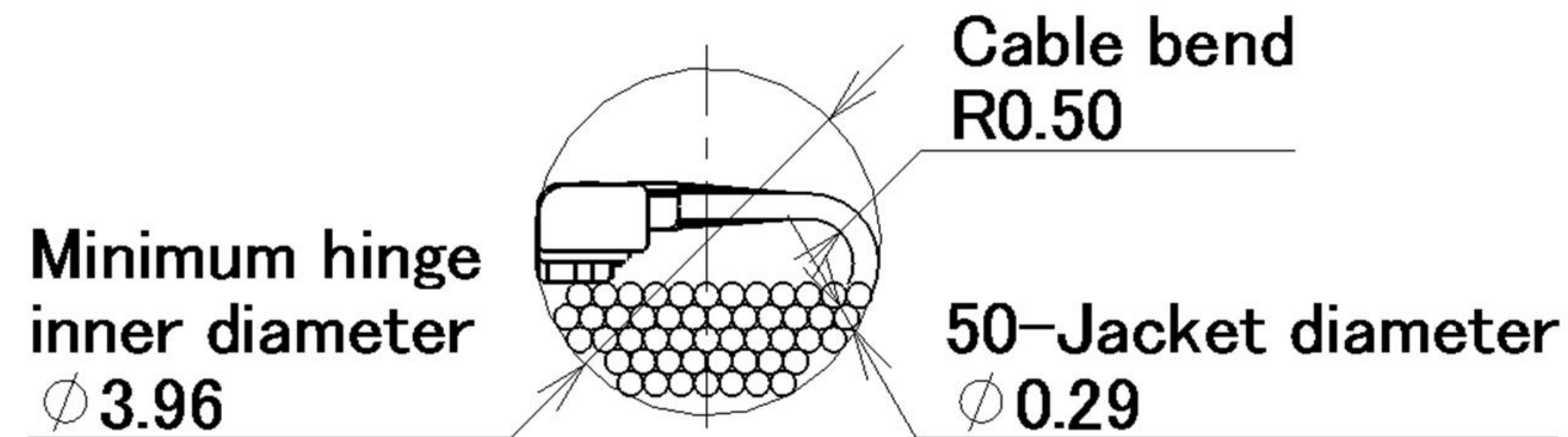


Fig.1 AWG#42 (45ohm) 50P

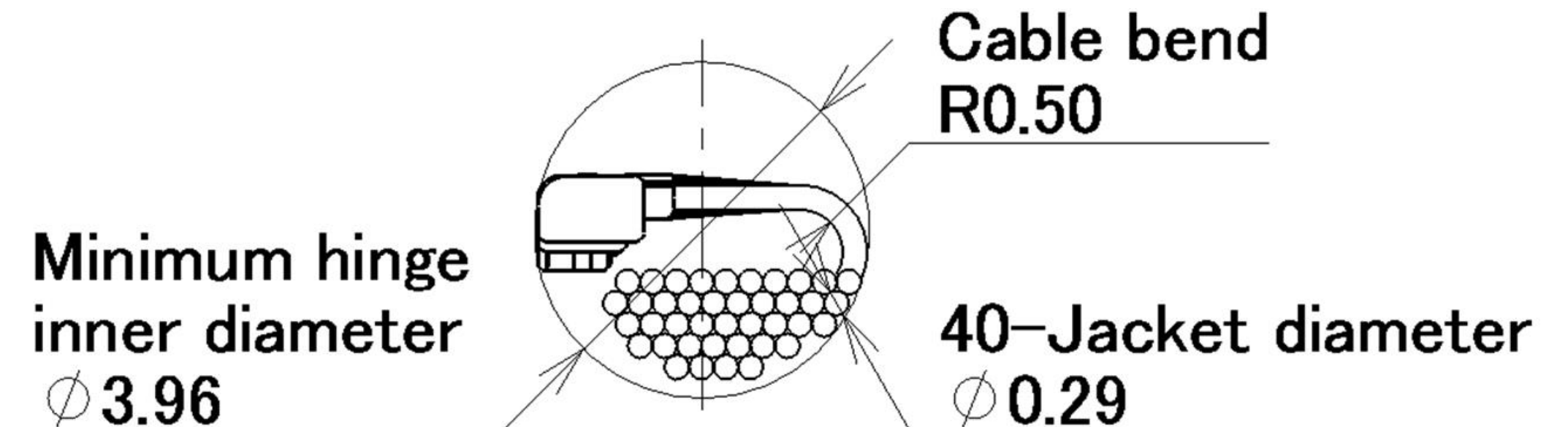


Fig.2 AWG#42 (45ohm) 40P

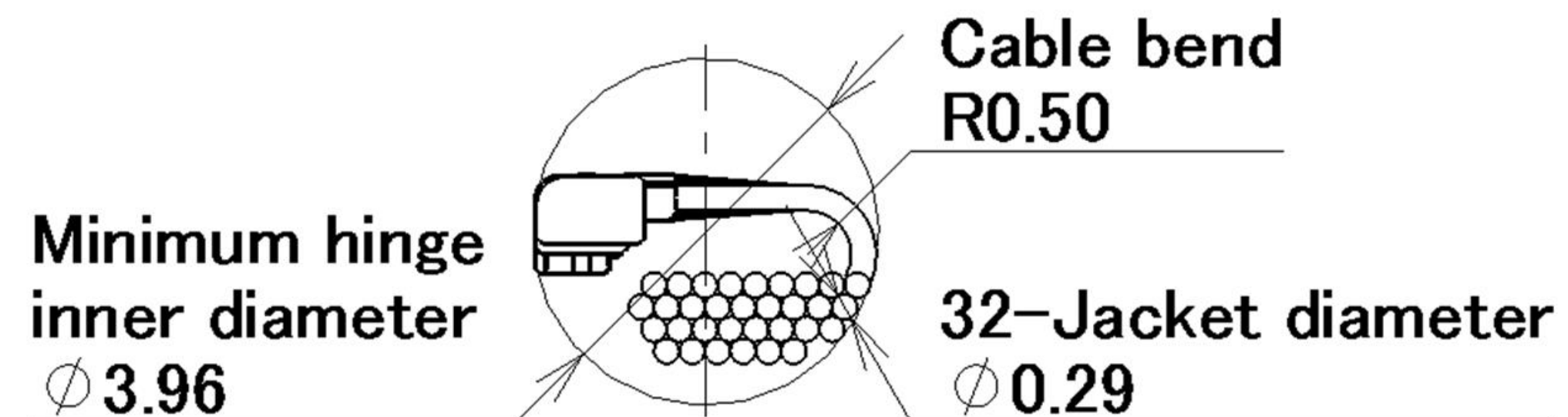


Fig.3 AWG#42 (45ohm) 32P

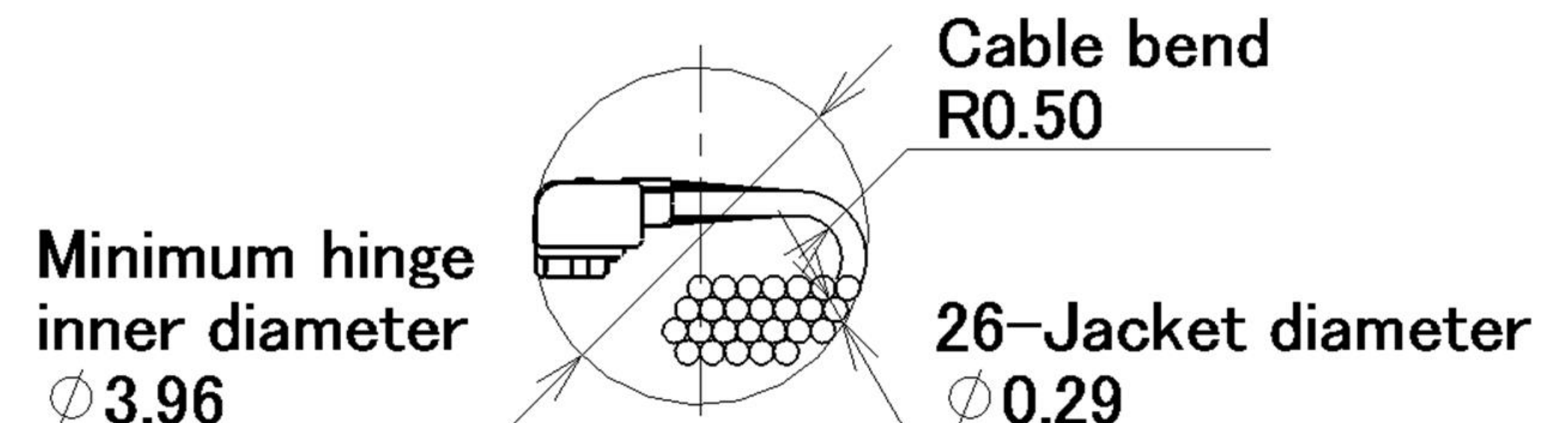


Fig.4 AWG#42 (45ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.1 With bonding

Simulation results with AWG #44 (45ohm).

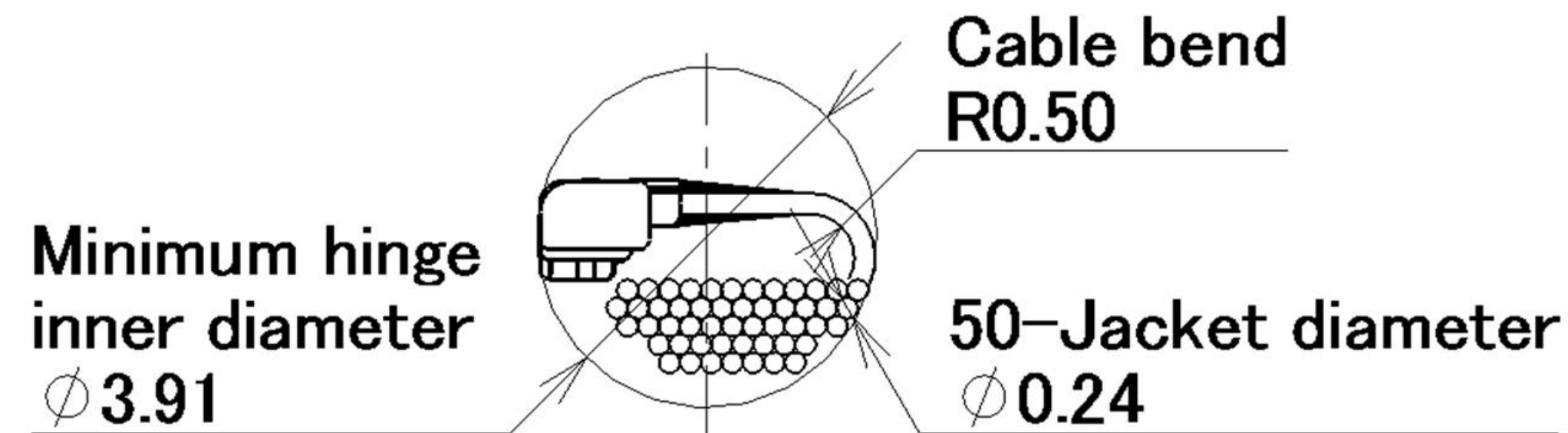


Fig.5 AWG#44 (45ohm) 50P

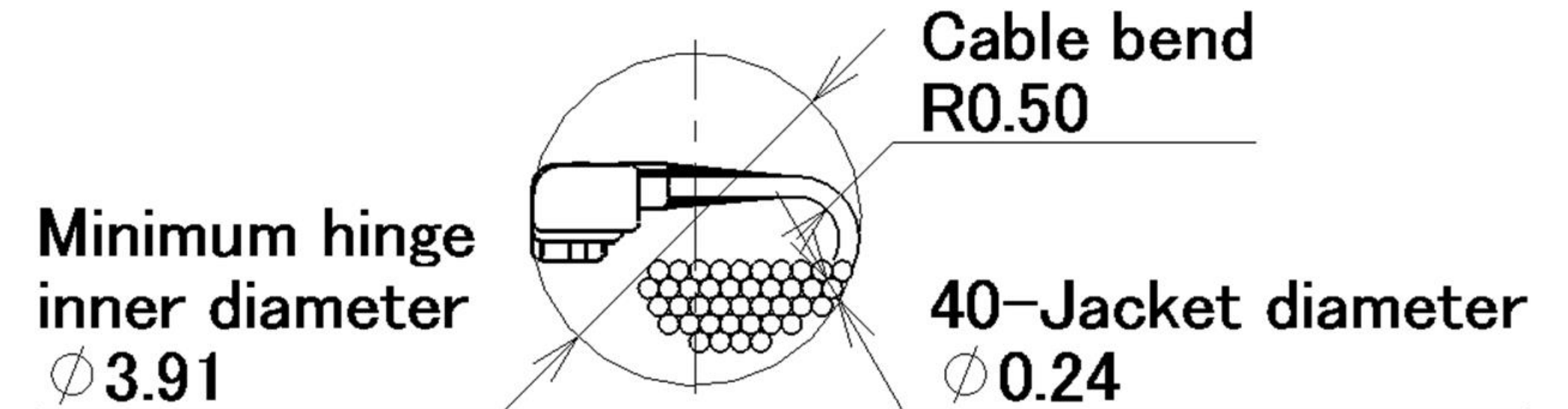


Fig.6 AWG#44 (45ohm) 40P

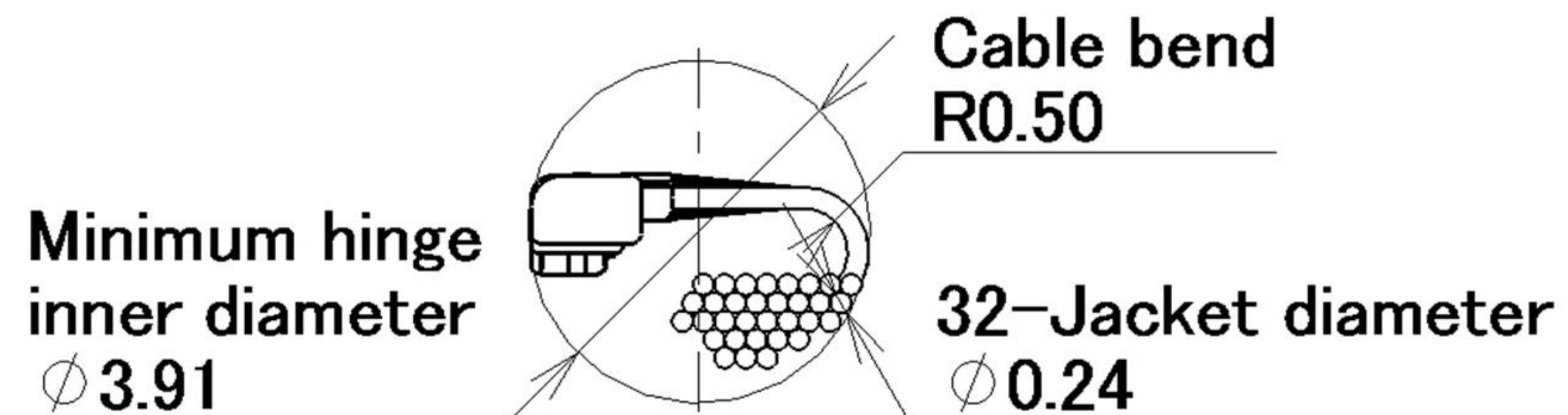


Fig.7 AWG#44 (45ohm) 32P

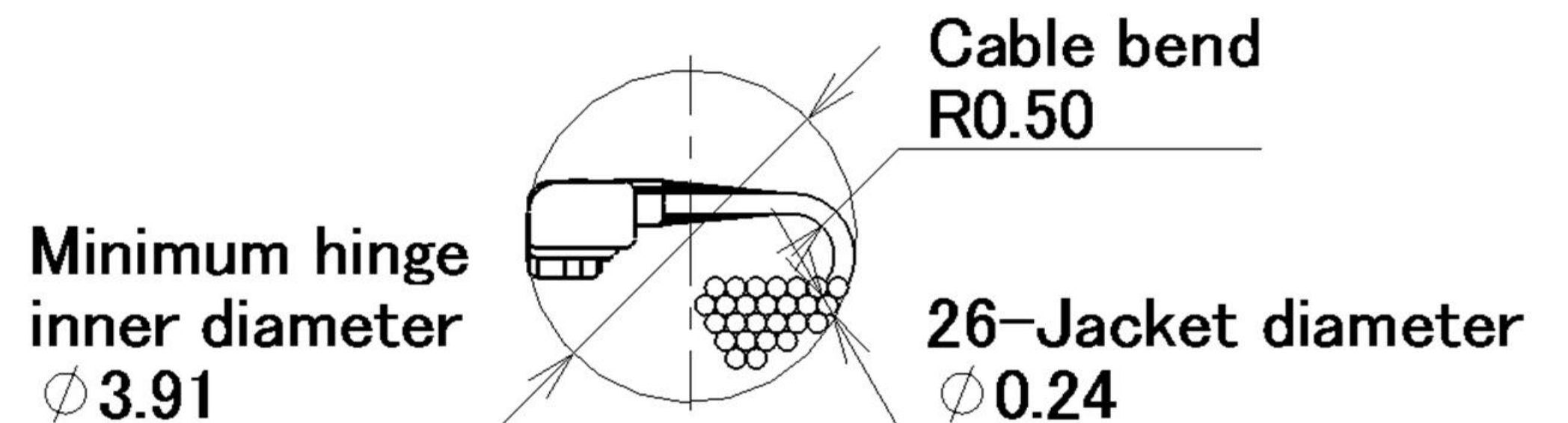


Fig.8 AWG#44 (45ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.1 With bonding

Simulation results with AWG #44 (50ohm).

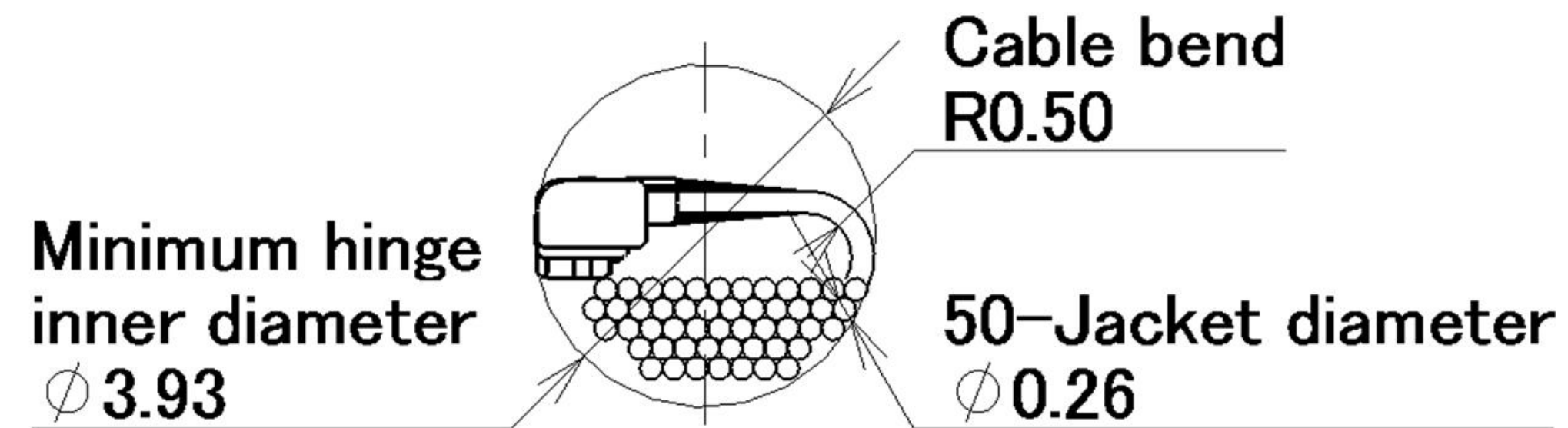


Fig.9 AWG#44 (50ohm) 50P

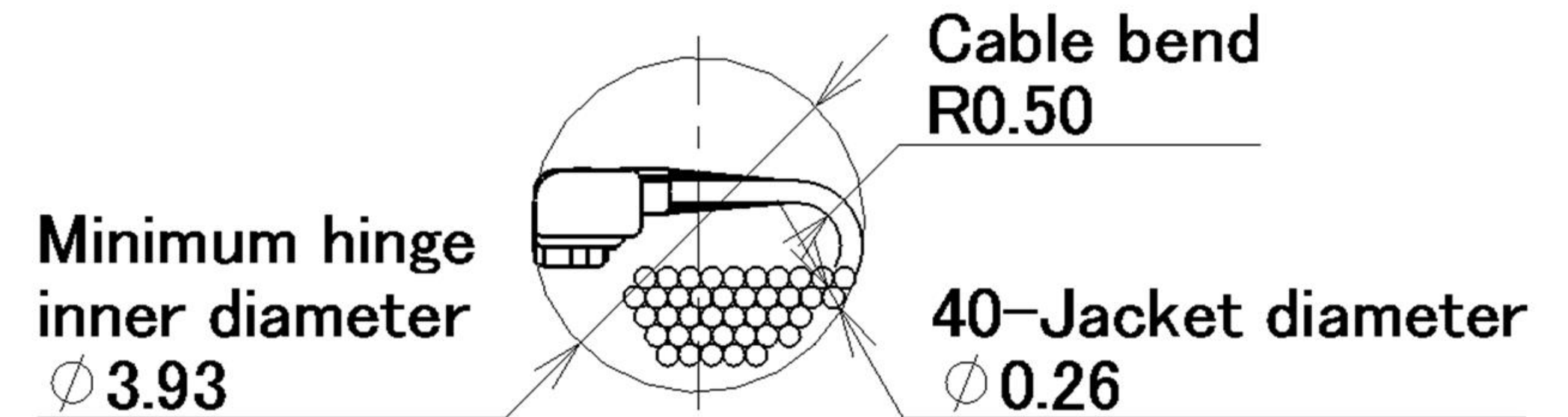


Fig.10 AWG#44 (50ohm) 40P

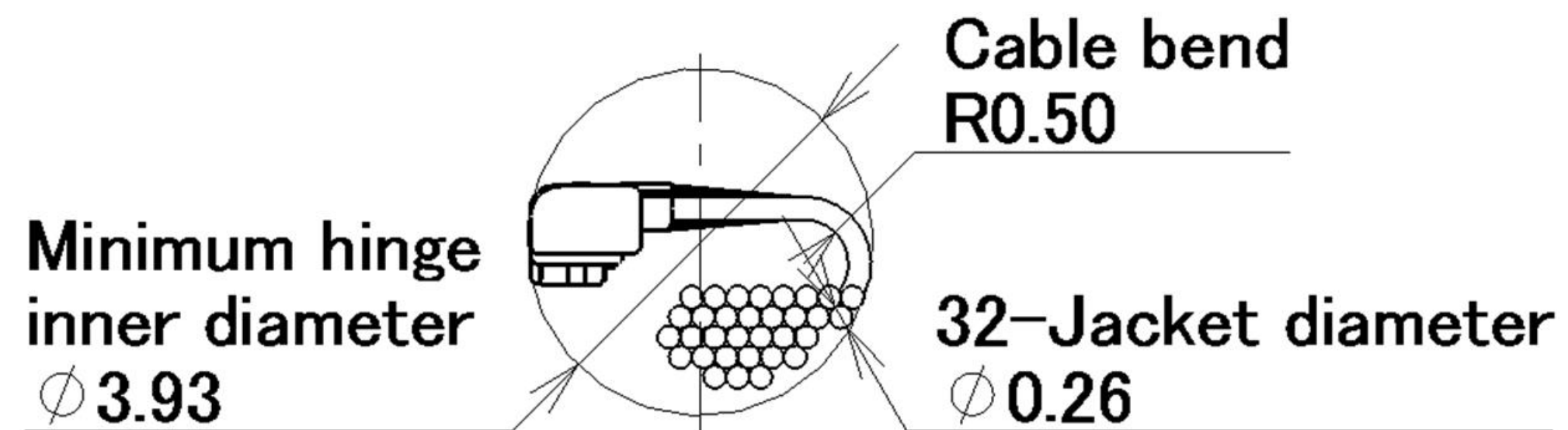


Fig.11 AWG#44 (50ohm) 32P

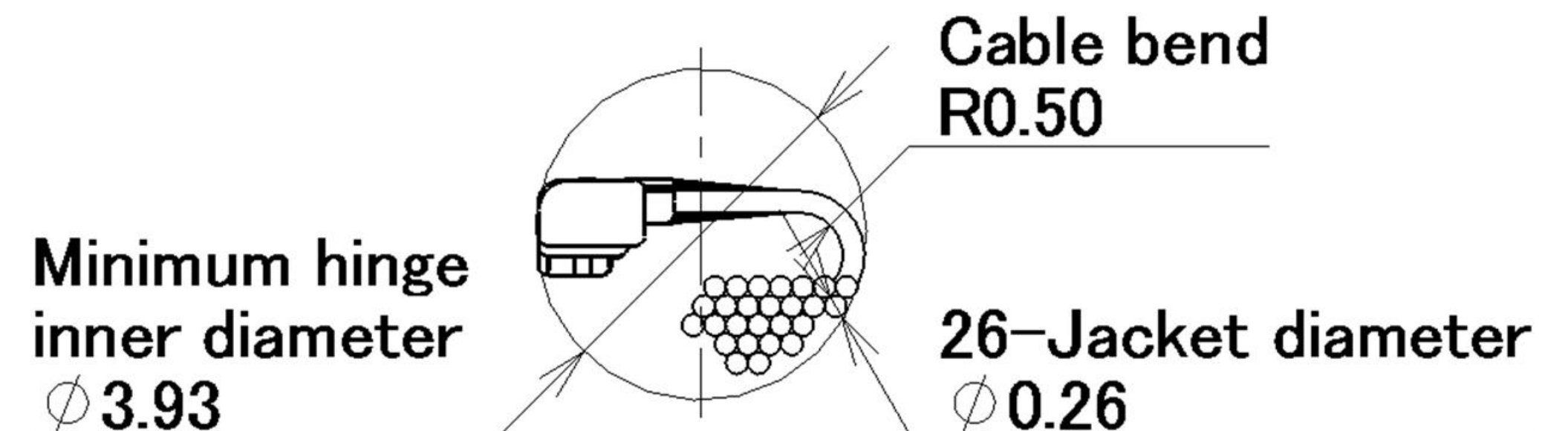


Fig12 AWG#44 (50ohm) 26P

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3. Simulation result

3.1 With bonding

Simulation results with AWG #46 (45ohm).

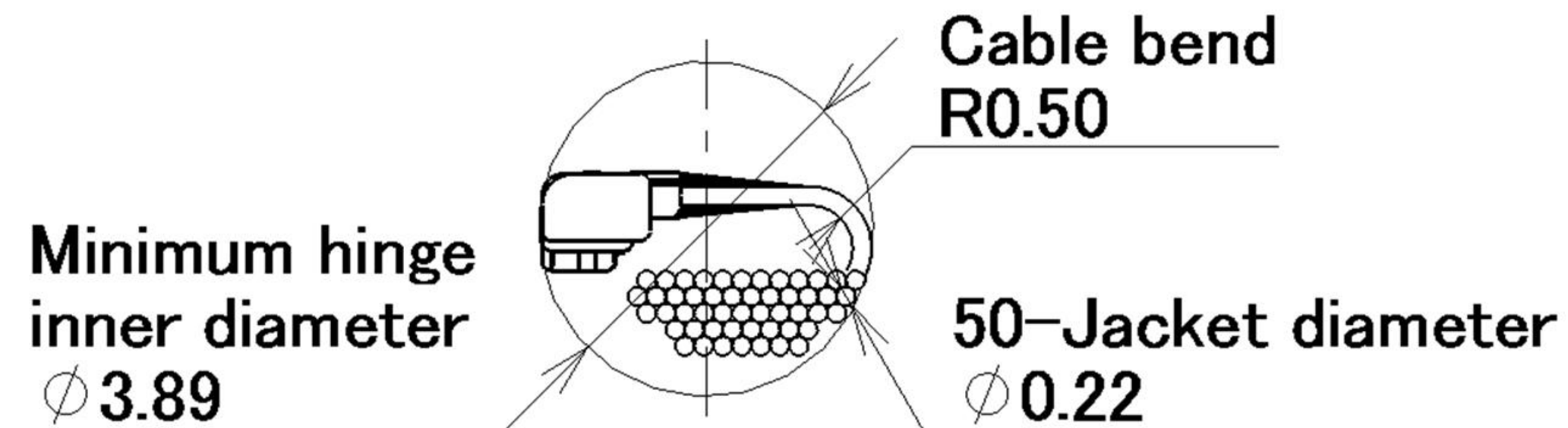


Fig.13 AWG#46 (45ohm) 50P

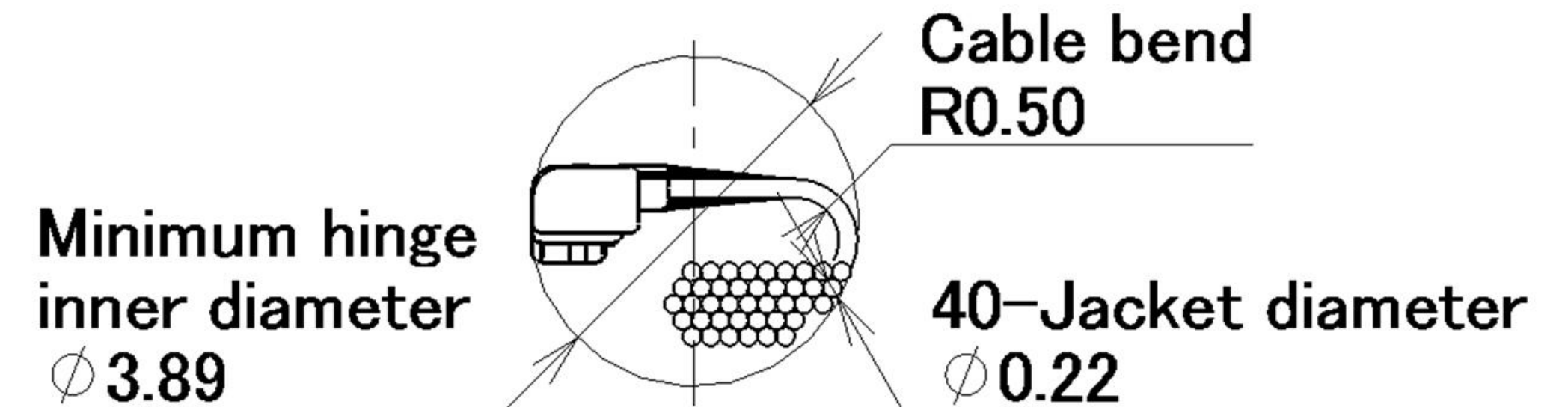


Fig.14 AWG#46 (45ohm) 40P

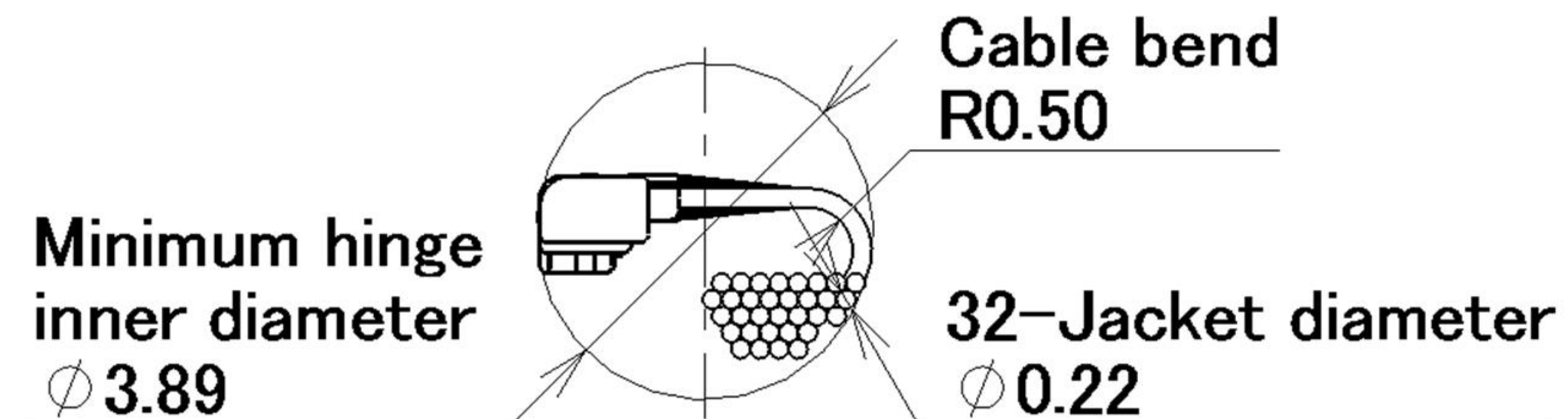


Fig.15 AWG#46 (45ohm) 32P

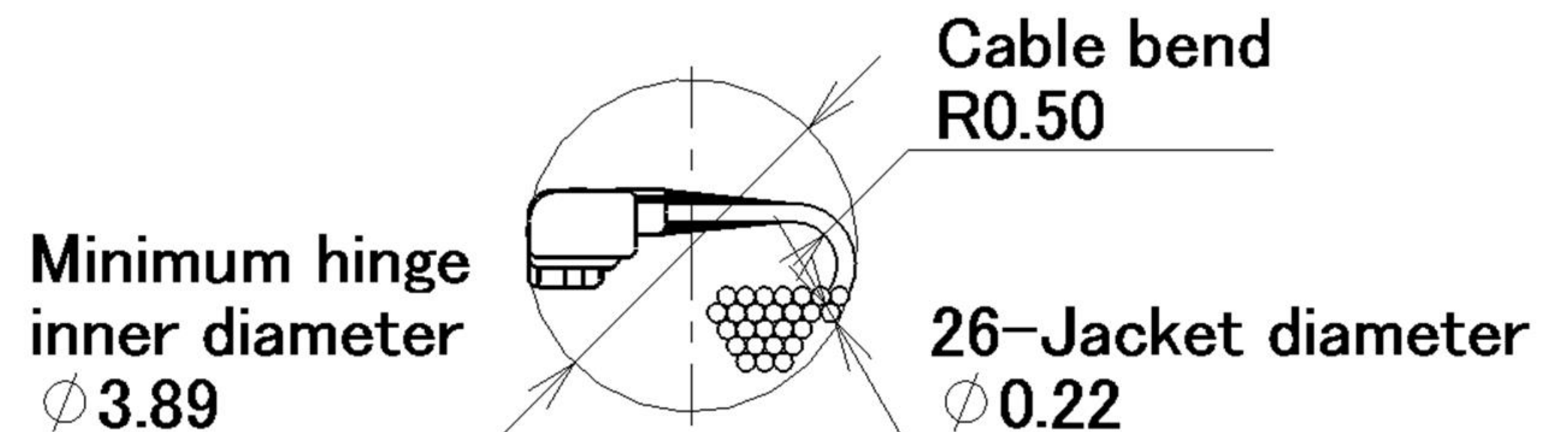


Fig.16 AWG#46 (45ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.1 With bonding

Simulation results with AWG #46 (50ohm).

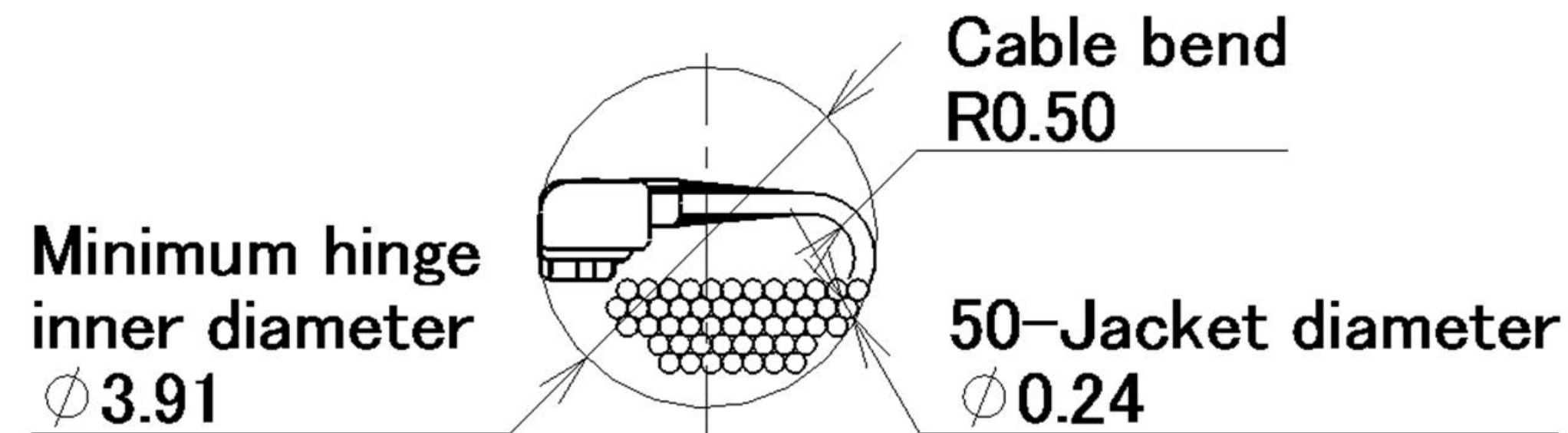


Fig.17 AWG#46 (50ohm) 50P

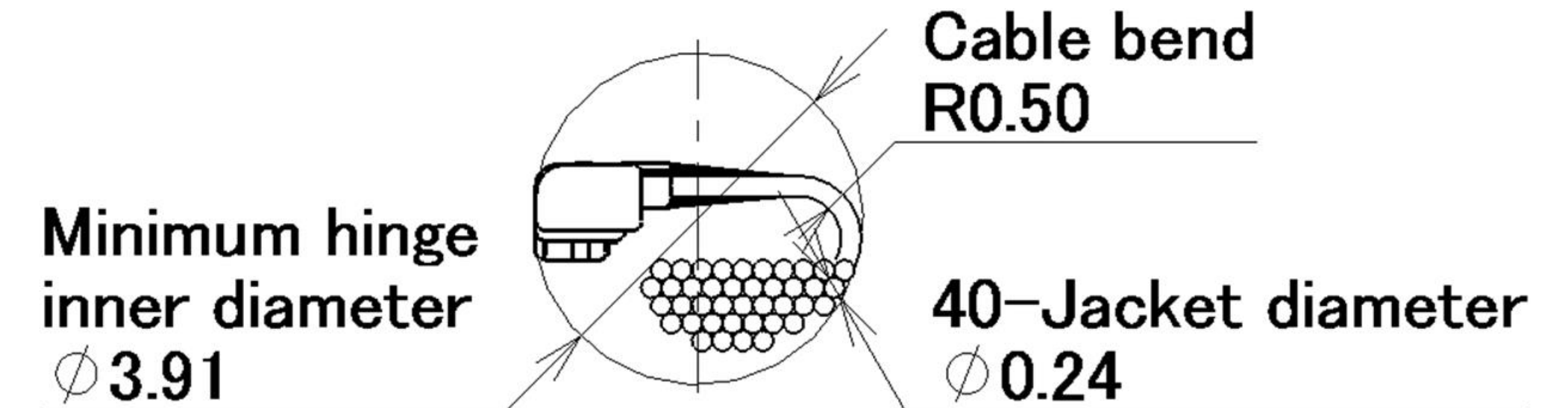


Fig.18 AWG#46 (50ohm) 40P

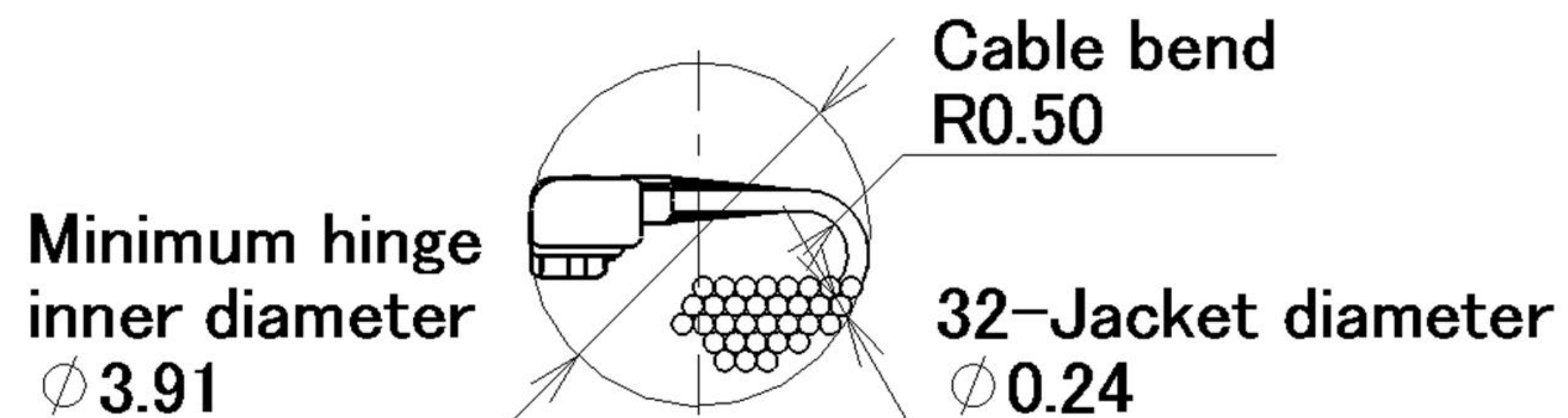


Fig.19 AWG#46 (50ohm) 32P

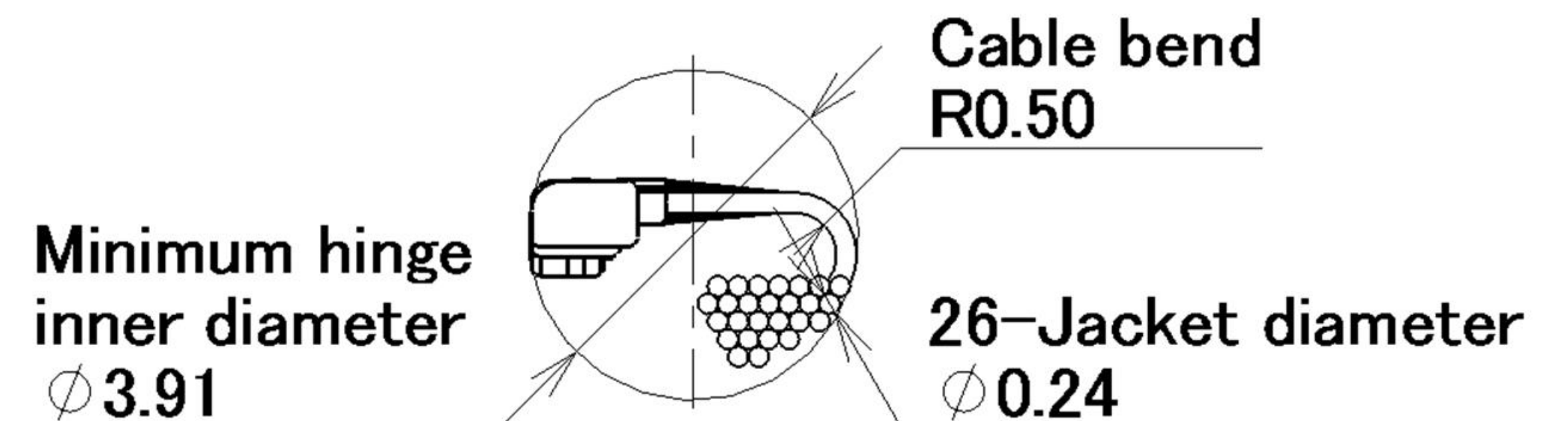


Fig.20 AWG#46 (50ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.2 Without bonding

Simulation results with AWG #42 (45ohm).

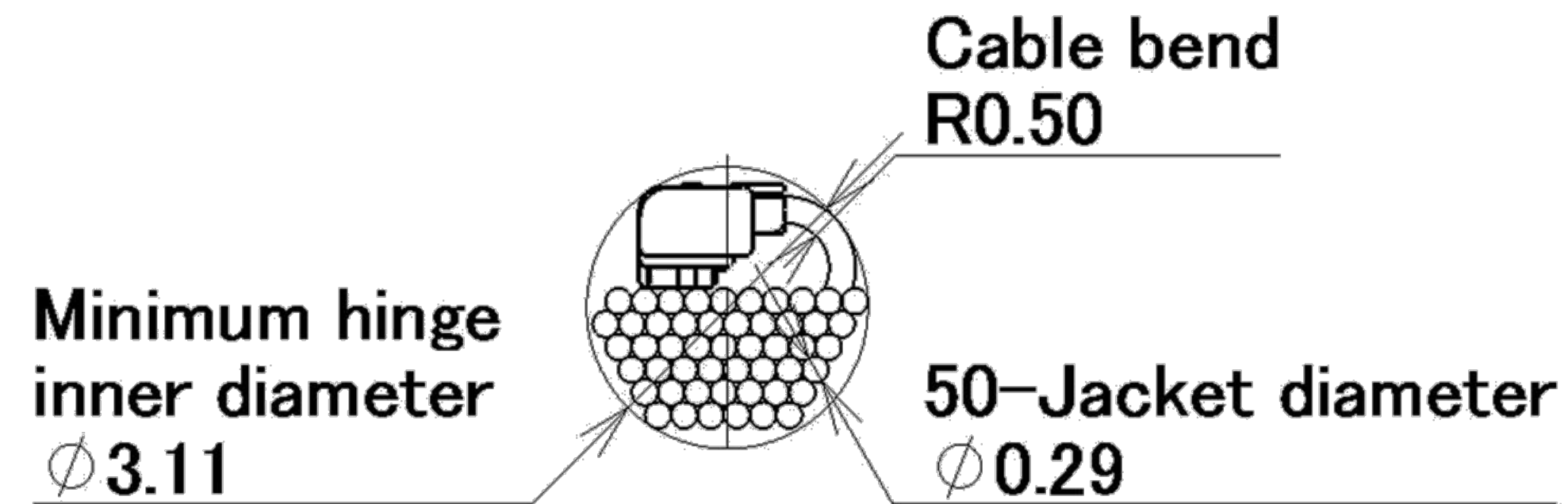


Fig.21 AWG#42 (45ohm) 50P

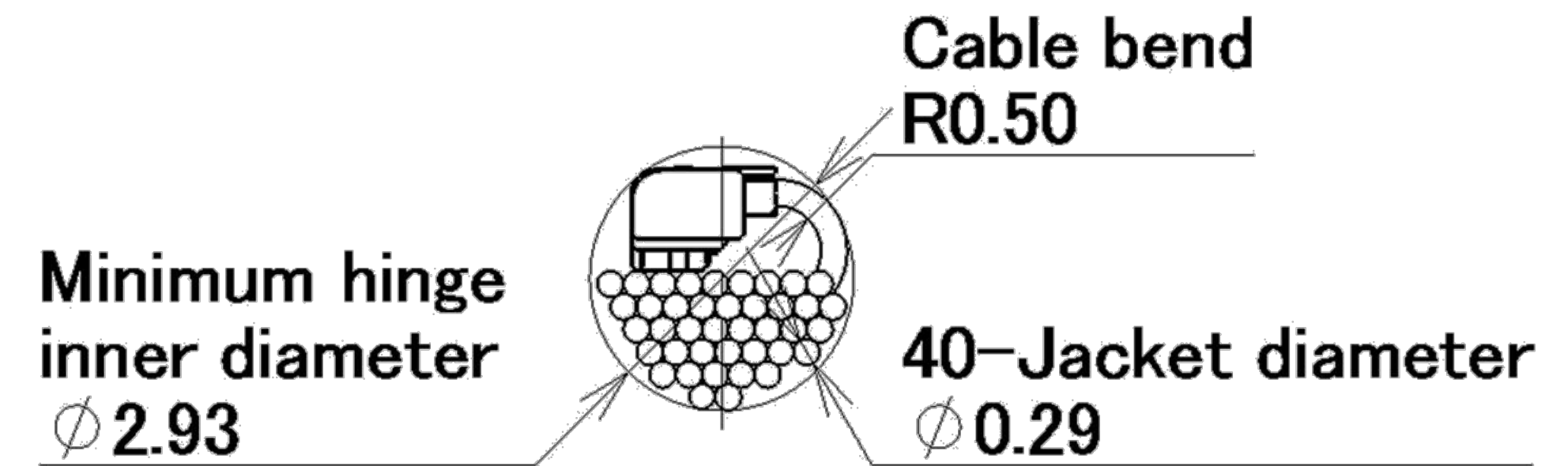


Fig.22 AWG#42 (45ohm) 40P

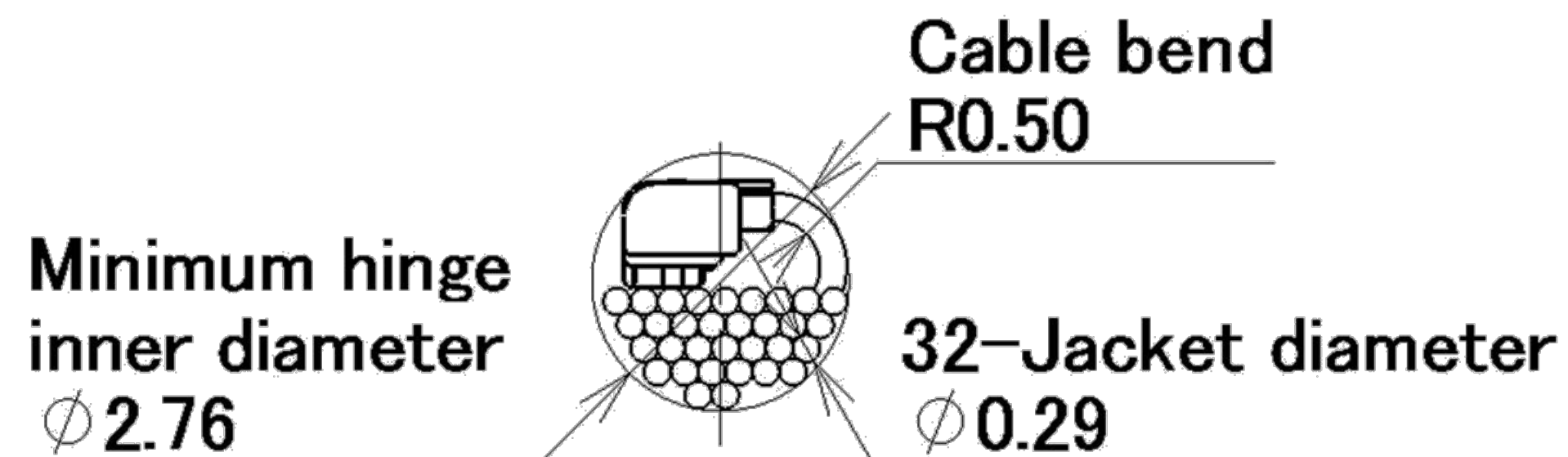


Fig.23 AWG#42 (45ohm) 32P

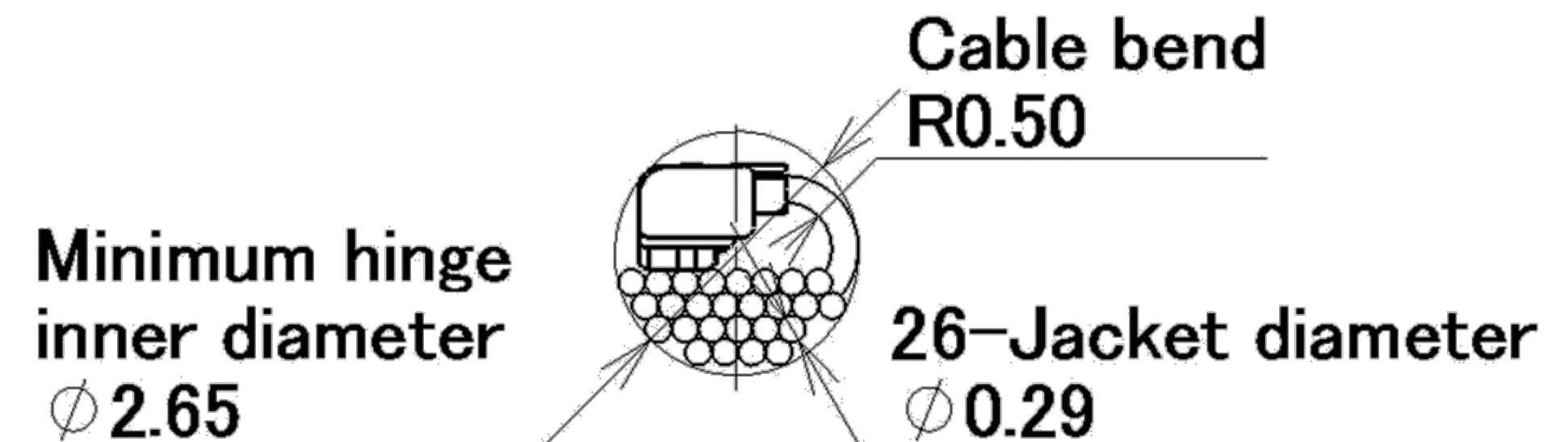


Fig.24 AWG#42 (45ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.2 Without bonding

Simulation results with AWG #44 (45ohm).

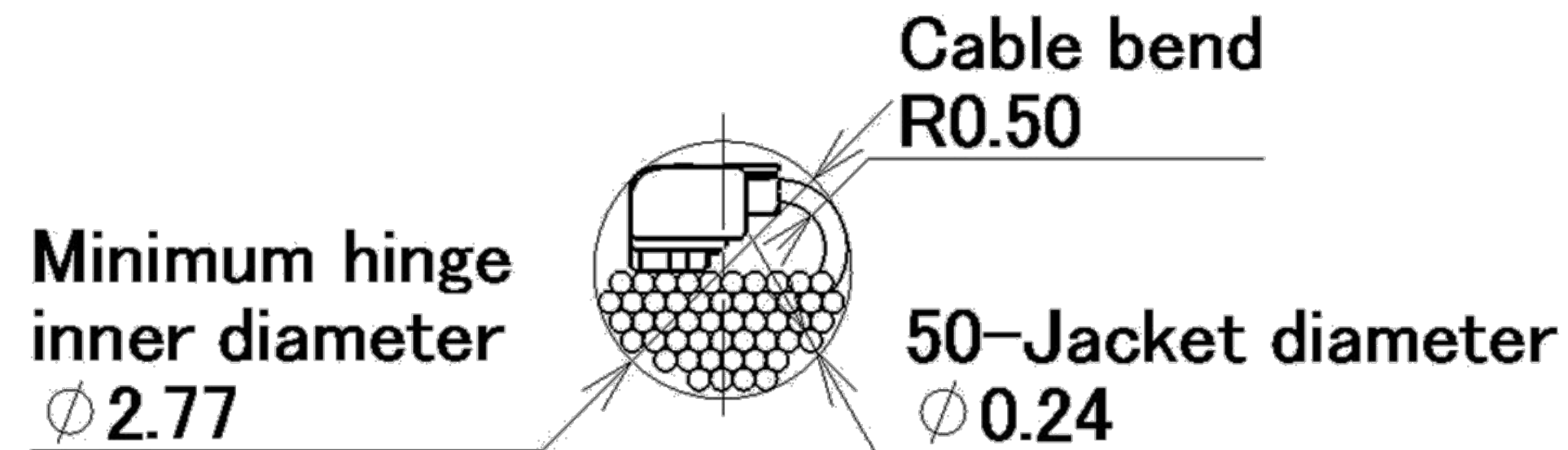


Fig.25 AWG#44 (45ohm) 50P

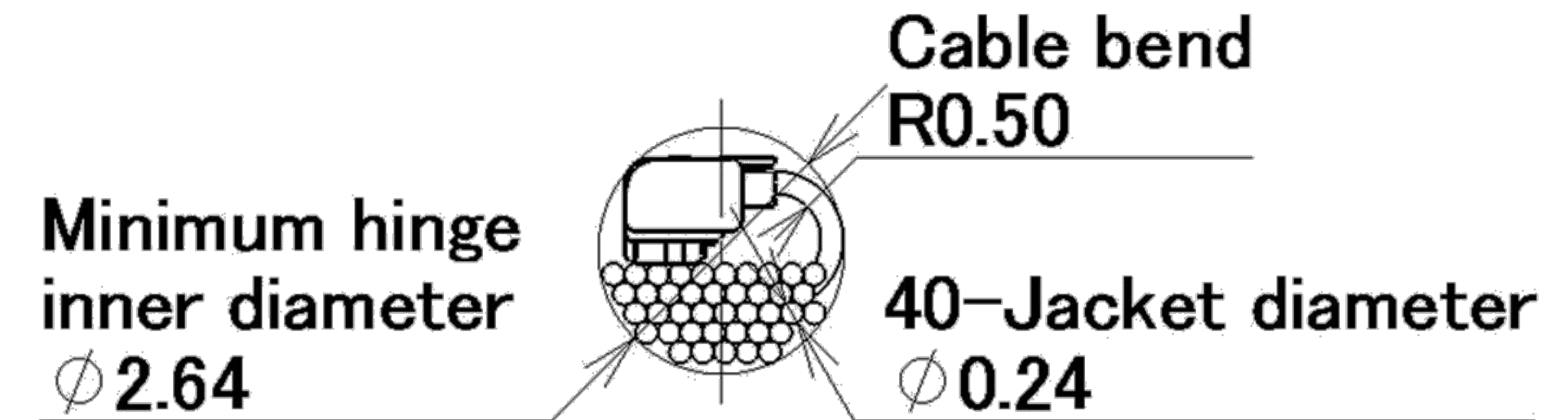


Fig.26 AWG#44 (45ohm) 40P

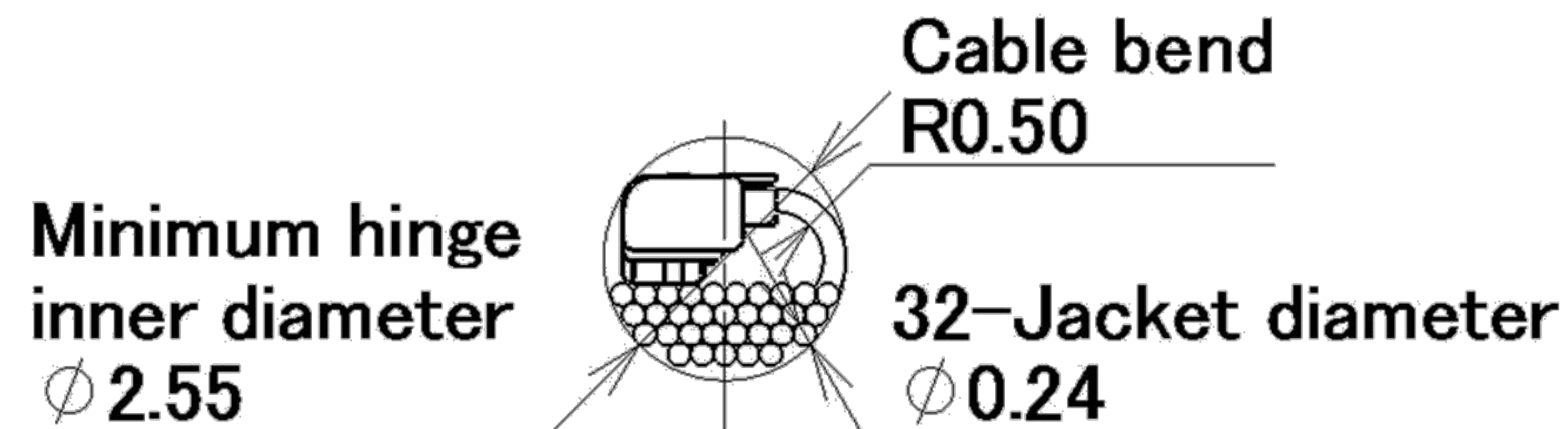


Fig.27 AWG#44 (45ohm) 32P

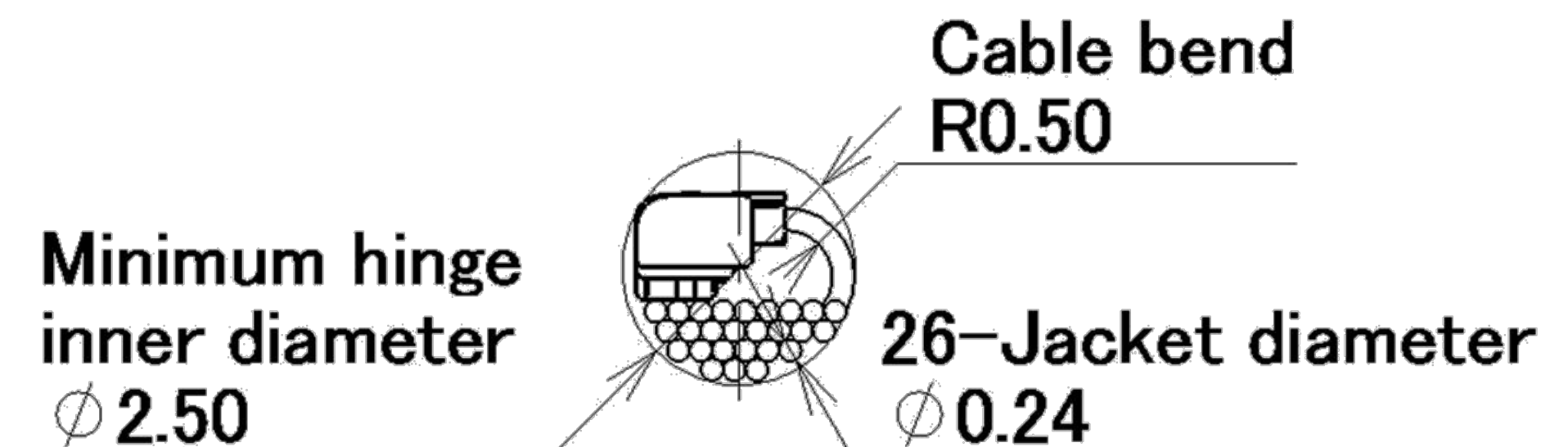


Fig.28 AWG#44 (45ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.2 Without bonding

Simulation results with AWG #44 (50ohm).

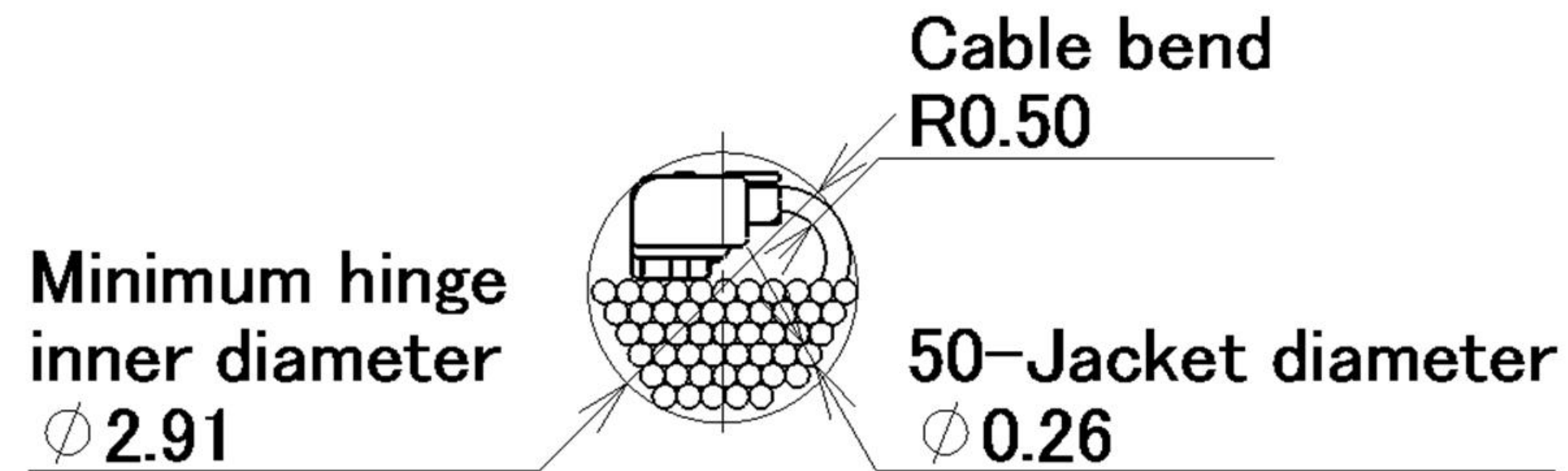


Fig.29 AWG#44 (50ohm) 50P

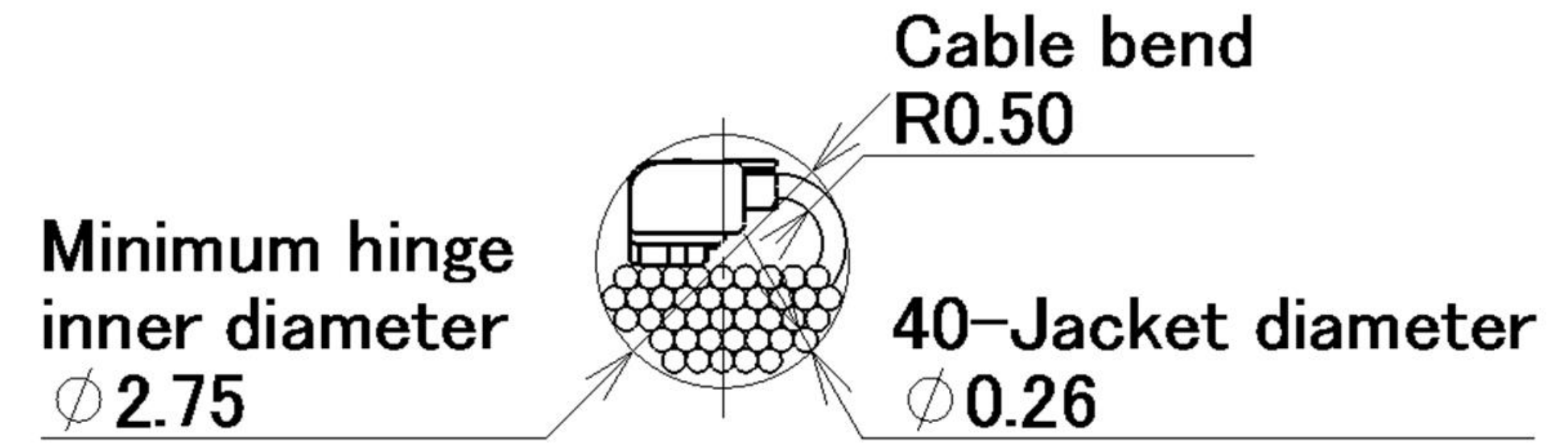


Fig.30 AWG#44 (50ohm) 40P

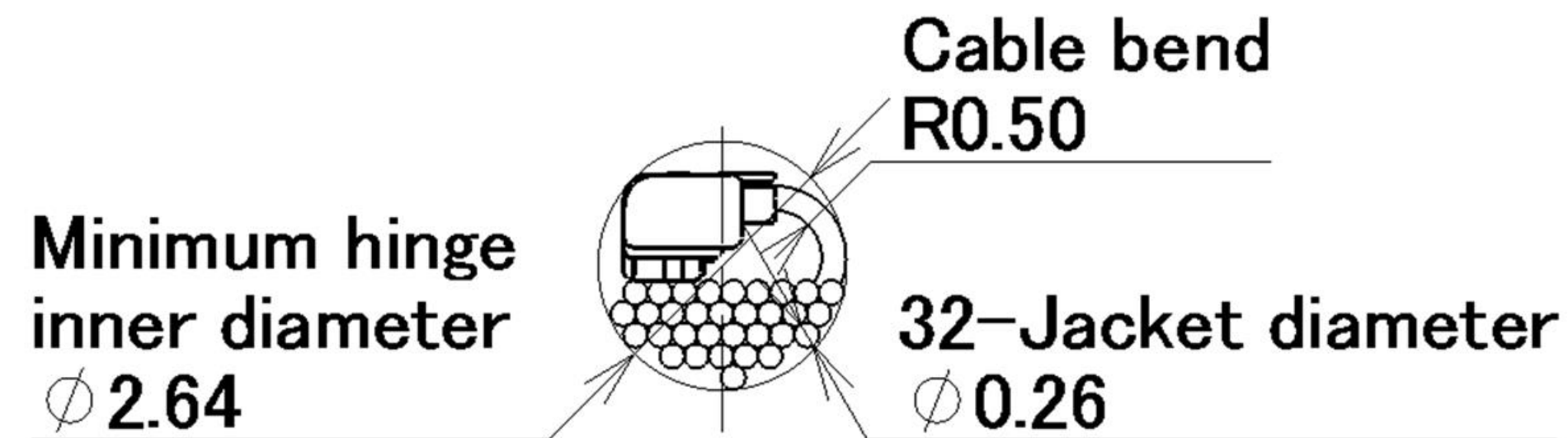


Fig.31 AWG#44 (50ohm) 32P

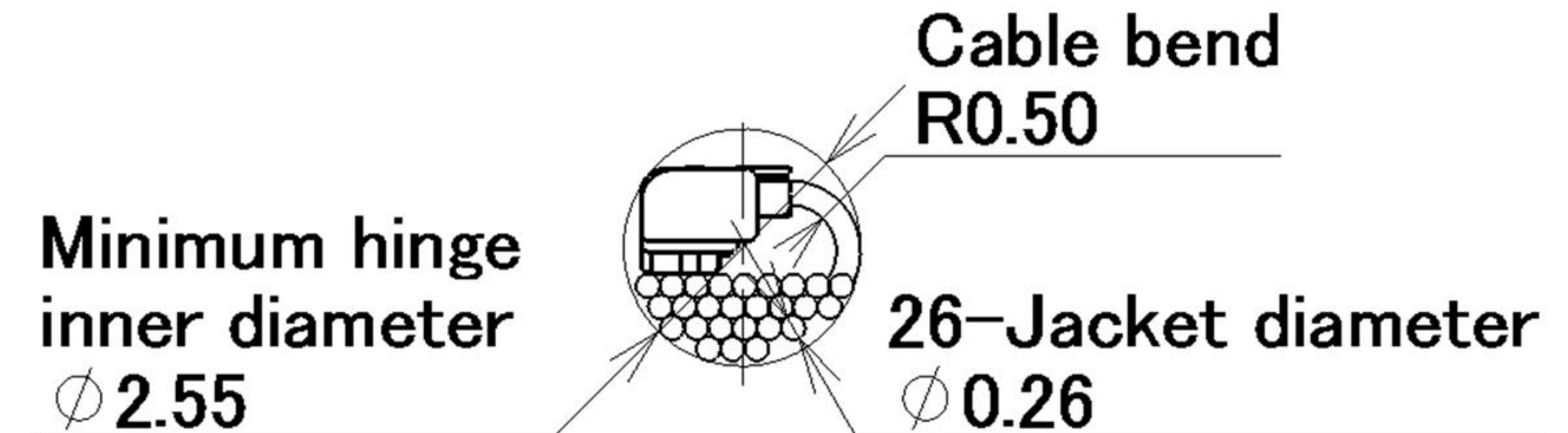


Fig.32 AWG#44 (50ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.2 Without bonding

Simulation results with AWG #46 (45ohm).

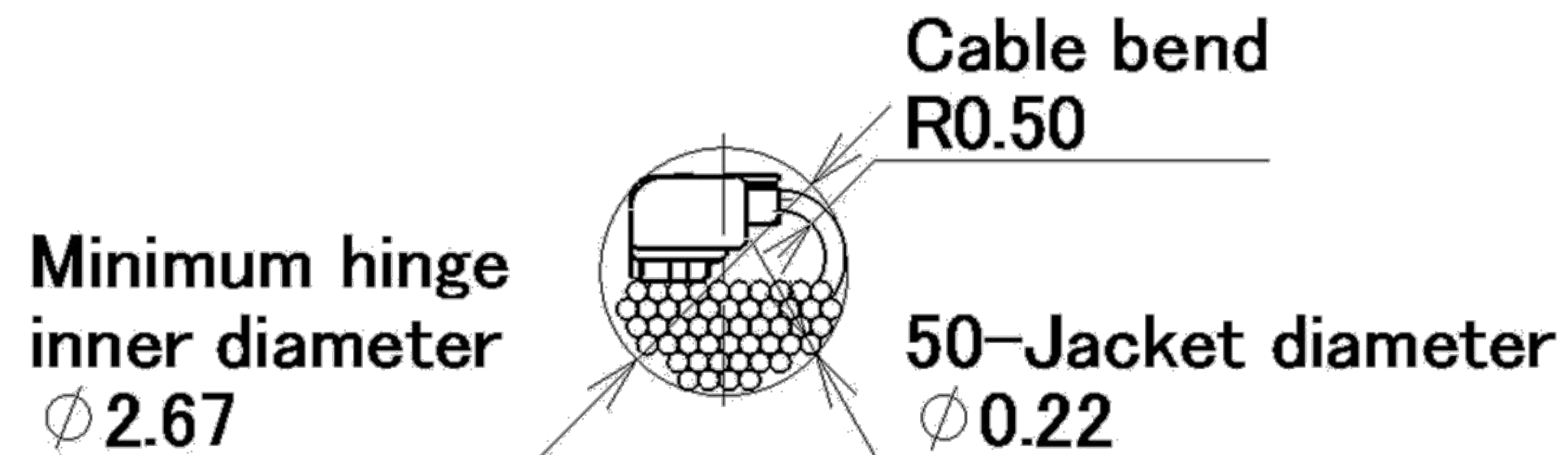


Fig.33 AWG#46 (45ohm) 50P

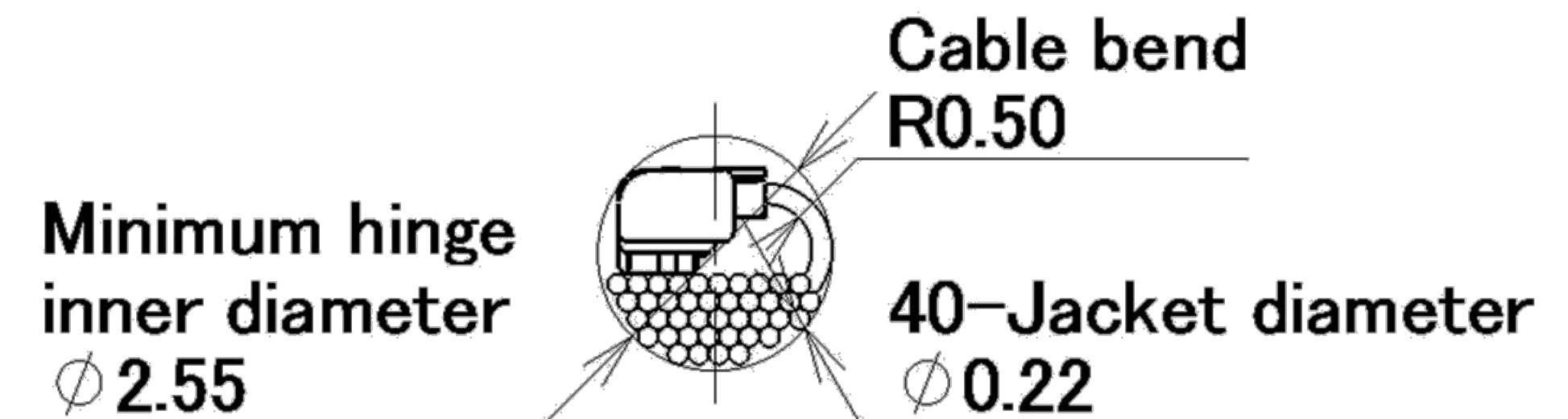


Fig.34 AWG#46 (45ohm) 40P

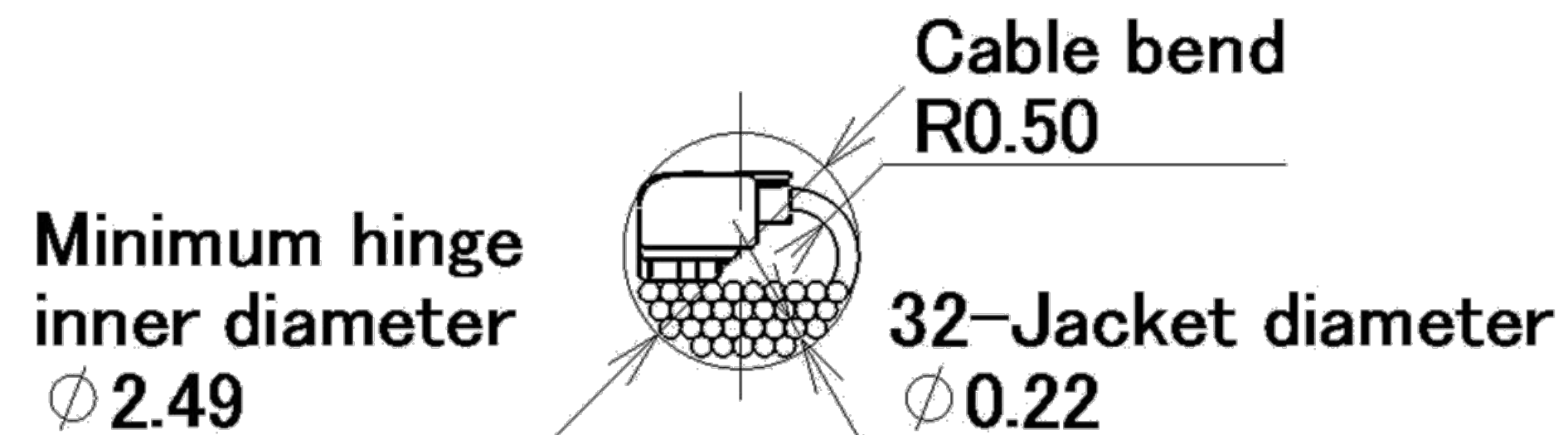


Fig.35 AWG#46 (45ohm) 32P

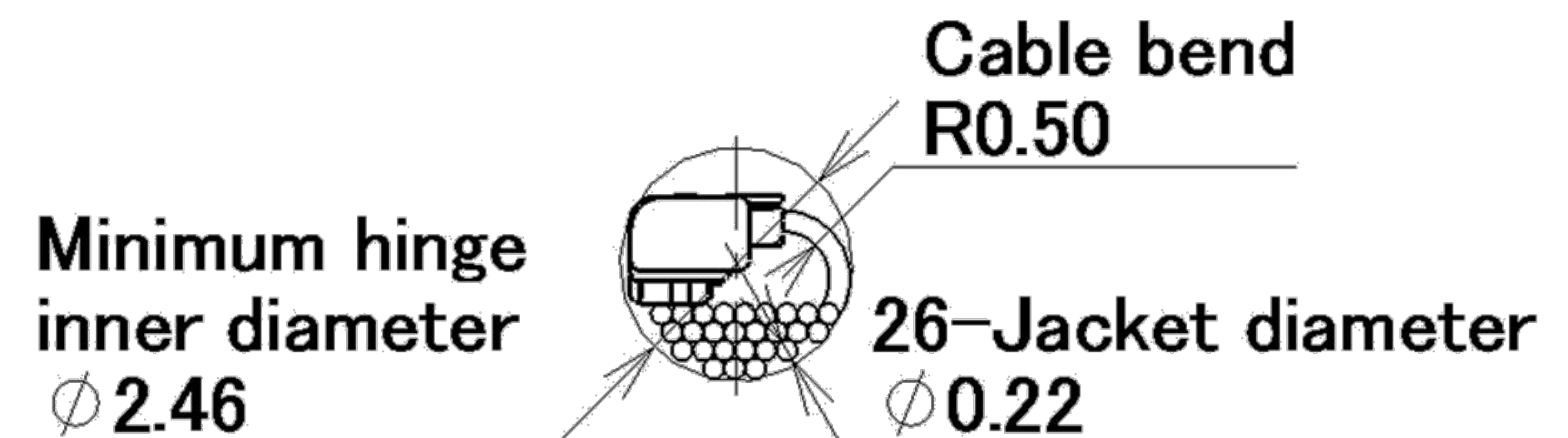


Fig.36 AWG#46 (45ohm) 26P

CABLINE-UA II The simulation of passing PLUG through hinge

3. Simulation result

3.2 Without bonding

Simulation results with AWG #46 (50ohm).

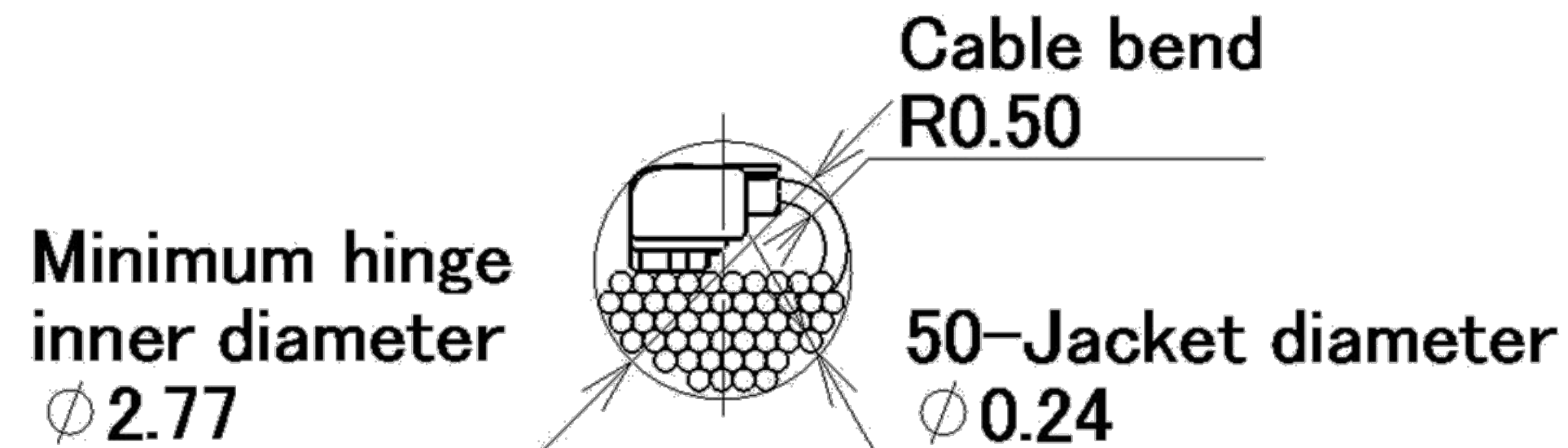


Fig.37 AWG#46 (50ohm) 50P

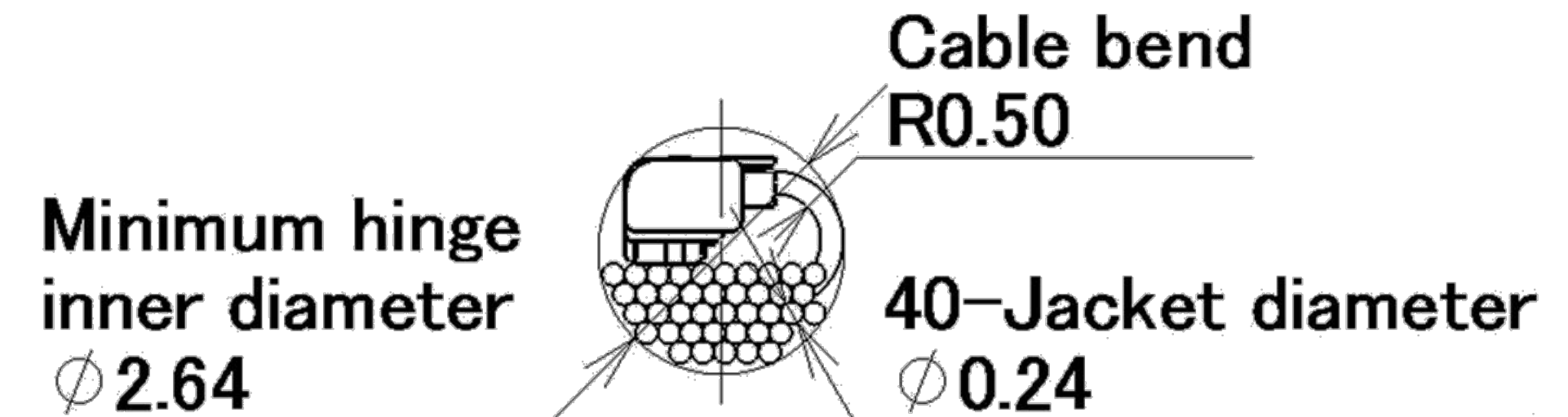


Fig.38 AWG#46 (50ohm) 40P

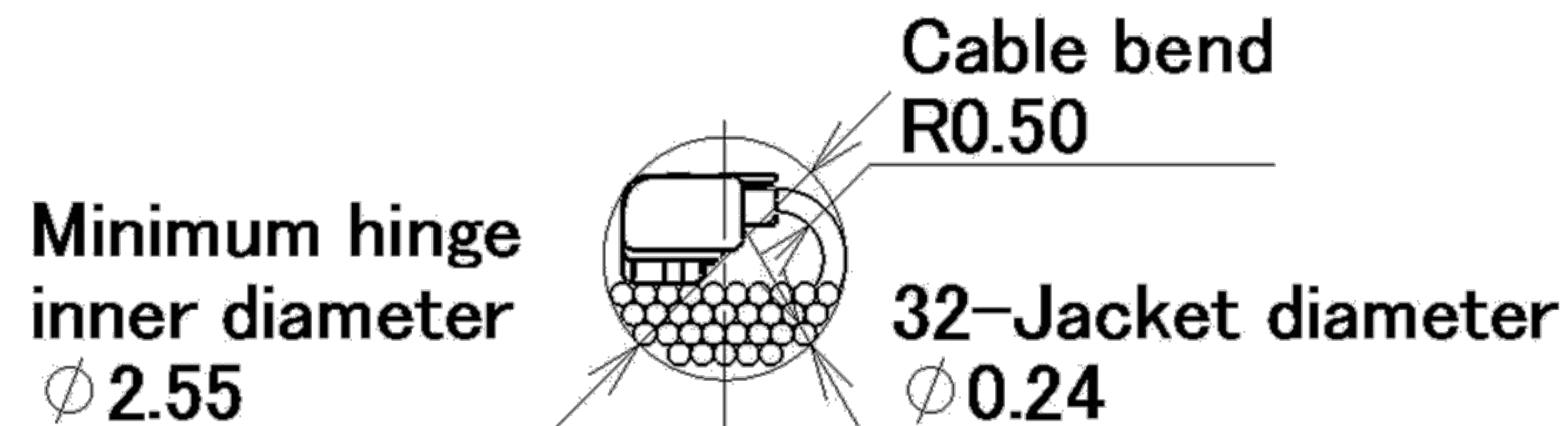


Fig.39 AWG#46 (50ohm) 32P

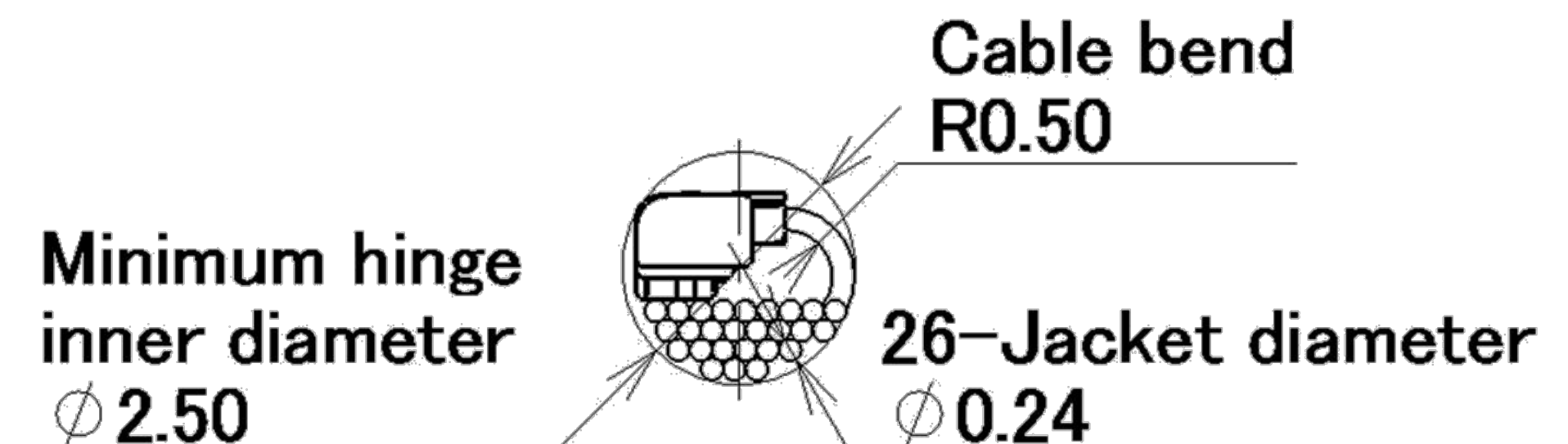


Fig.40 AWG#46 (50ohm) 26P

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