

M C P S E R V E R

N O C O D E

C L O U D H O S T E D

Fishing Line Length Calculator MCP

Stop running out of line mid-cast.

Fishing Line Length Calculator MCP helps you plan your fishing trips by calculating exactly how much line you need based on your planned cast count and expected line loss. It checks your current gear against your session goals so you never show up to the water underprepared.

A+ Quality Score 100/100

fishing

line-length

angler

calculation

equipment



The connectivity layer between AI and the world's software.

Vinkius sits between AI and every application. All communication passes through Vinkius Cloud via the Model Context Protocol (MCP) — with governance, observability, and security at every layer.

Your AI Connections Run Through Vinkius Cloud

The world's largest
managed MCP catalog

Vinkius is the connectivity layer where AI connects to the software your business already runs. We handle the hosting, the security, the credentials, the uptime — you get agents that actually do things.

We operate the world's largest managed MCP catalog. Major SaaS platforms, CRMs, databases, and cloud providers — running, monitored, production-ready. This MCP server is hosted and maintained by the Vinkius Cloud for AI Agents.

The agent doesn't manage credentials, doesn't manage uptime, doesn't manage security. Vinkius does.

— Architecture principle

Four Pillars of the Vinkius Runtime

01 — Security by design

Credentials stay encrypted at rest via AES-256. The AI agent never touches raw keys — they're injected into a sandboxed V8 isolate at runtime. Actions are logged, and connections have an emergency kill switch.

03 — Deterministic observability

Eight immutable metrics per endpoint: request volume, p95 latency, error rate, active connections, cost attribution. A live payload feed logs every tool call with mutation detection.

02 — Built on MCP Fusion

This MCP server was built with **MCP Fusion**, the open-source framework (Apache 2.0) that powers the entire Vinkius catalog. Schema-as-firewall strips undeclared fields, compiled PII redaction runs at zero overhead, and cryptographic lockfiles produce git-diffable audit trails.

04 — Autonomous operations

Servers are deployed, monitored, and patched autonomously. New capabilities and security patches ship weekly. Zero-downtime deployments ensure continuous availability across all managed MCP servers.

AES-256

Encryption at rest

Ed25519

PKI vault signatures

24h TTL

Ephemeral session keys

V8 Isolate

Sandboxed execution

One Token. Instant Access.

Every MCP server on Vinkius is accessed through a **Connection Token**. Tokens are generated in the cloud dashboard and produce a unique MCP endpoint URL. Paste this URL into any MCP-compatible client — no SDK required.

A single token can serve **multiple AI clients simultaneously**, or you can issue separate tokens per client for granular access control. Each token tracks its own request count, last activity timestamp, and can be individually enabled or revoked.

MCP ENDPOINT`https://edge.vinkius.com/{token}/mcp`

Claude



Cursor



VS Code



Windsurf



Grok



Gemini

Security Is the Architecture

Security in Vinkius is not a feature — it's the foundation of the runtime. The gateway enforces multiple independent protection layers between AI agents and third-party APIs.

01 — Ed25519 PKI Vault

Every workspace has an Ed25519 Master Key. Session keys are generated ephemerally (24h TTL) and signed by the Master Key. Credentials never leave the vault boundary.

02 — V8 Isolate Sandboxing

Tool code runs inside isolated-vm V8 isolates with 64 MB memory caps and per-request timeouts. No filesystem access, no network access except through the SSRF-guarded fetch bridge.

03 — SSRF Guard

All outbound HTTP requests are DNS-resolved and validated before execution. Private IP ranges (10.x, 172.16-31.x, 192.168.x, AWS metadata 169.254.x) are blocked at the network layer.

05 — Cryptographic Audit Trail

Every request is signed into a SHA-256 hash chain with Ed25519 signatures. Events form a tamper-proof, SIEM-exportable forensic record.

04 — DLP & PII Redaction

A ResponseGuard pipeline intercepts every tool response. Configurable redaction patterns strip sensitive fields (emails, SSNs, card numbers) before data reaches the AI agent.

06 — Honeypot Trap System

Phantom credentials are injected into isolated environments. If a honeypot is used outside Vinkius infrastructure, the server is quarantined instantly.

Emergency Kill Switch

EU AI Act Art. 14(1)
Compliant

The kill switch is an **emergency halt** mechanism — not a simple toggle. When triggered, it executes three actions atomically:

01 — Server deactivated

The MCP server is immediately taken offline across the entire cluster.

02 — All tokens revoked

Every connection token is invalidated. Total lockout — reconnection blocked until new tokens are issued.

03 — WebSocket connections killed

Active connections terminated via Redis pubsub broadcast. Propagates to every runtime node in the cluster.

Full Visibility. Zero Guesswork.

The Vinkius cloud dashboard includes a full MCP Governance suite — real-time analytics and security controls for production AI operations.

Control Plane

KPI dashboard with request volume, latency, success rate, token consumption, and AI-generated operational briefings.

FinOps

Cost tracking per tool, payload compression savings, budget optimization signals, and consumption trends.

Firewall & DLP

PII redaction activity, sensitive data protection counters, and security event timeline.

Agent Activity

Which AI clients are connecting, how often, and what they're doing — real-time session tracking.

Tool Health

Slowest and most error-prone tools, with actionable root-cause insights and performance baselines.

Incident Log

Error trends, failure rates, status-code breakdowns, and forensic audit trail access.

Get started at cloud.vinkius.com — connect your AI agent in under 60 seconds.

Fishing Line Length Calculator MCP

4 tools available

Cloud-hosted on Vinkius

Planning a fishing trip involves more than just picking a spot. You need to know if your current gear can actually handle the session you have in mind. This MCP handles the math for you. Instead of guessing how much line you'll lose to knots, bird's nests, or snapped leaders, you give your AI client the specifics of your planned session. It calculates the total length required and compares it against the capacity of the spool you're currently carrying. You can also test different safety buffers to see how much extra line you should carry to account for unexpected loss. It's a simple way to ensure your gear matches your expectations before you even leave the house.

Core Capabilities

01 — Session Planning

The AI calculates total line needs based on cast count and loss per cast.

02 — Spool Validation

Your agent checks if your current line supply covers your planned activity.

03 — Buffer Analysis

The AI determines how much extra line is needed to account for safety margins.

04 — Margin Comparison

You can compare different safety levels to see how they change your total requirements.

One Click on Vinkius — From Prompt to Execution

Available at vinkius.com/en/ai-agent-connect/fishing-line-length-calculator — connect your AI agent in three steps.

01 Connect the MCP to your preferred client like Claude or Cursor via Vinkius.

02 Provide your cast count and expected line loss per cast to your agent.

03 Ask the agent to validate your current spool or calculate a new requirement.

04 Receive precise length totals or capacity confirmations immediately.

Connect the MCP to your AI client and start asking about your gear.

Built For

Anglers who want to ensure their equipment is sufficient for long or high-intensity fishing sessions.

Recreational Anglers

Users who hand off their gear specs to the AI to verify trip readiness.

Fishing Guides

Professionals who use the AI to calculate equipment needs for clients.

Equipment Managers

People managing large inventories of fishing supplies and line spools.

What Changes When You Connect

01 Prevents running out of line during a session.

02 Calculates exact safety buffers for unexpected line loss.

03 Verifies spool capacity against planned cast counts.

04 Removes the guesswork from gear preparation.

Real-World Applications

Pre-Trip Gear Check

Verify if your current spool has enough length for a high-cast session before leaving.

Safety Margin Planning

Determine how much extra line to carry by testing different percentage buffers.

Inventory Management

Check if new line purchases will meet the requirements of specific fishing styles.

Session Estimation

Calculate total line needs based on expected meters lost per cast.

Patterns to Avoid

Ignoring line loss

❌ AVOID

You assume your spool capacity is exactly equal to your planned cast count without accounting for knots or snaps.

✓ INSTEAD

Use ``get_total_required_length`` to factor in expected meters lost per cast so you don't run out mid-session.

Underestimating safety margins

❌ AVOID

You plan a trip with zero extra line, thinking everything will go perfectly.

✓ INSTEAD

Run ``get_buffer_impact`` to see how much extra line a specific safety percentage adds to your total needs.

Blindly trusting spool labels

❌ AVOID

You assume a 200m spool is enough for a heavy day of casting without checking your specific gear requirements.

✓ INSTEAD

Run ``validate_fishing_supplies`` to confirm your current spool actually covers your planned number of casts.

The Right Fit

Anglers and guides who need to verify gear readiness should connect this MCP. People who don't care about line loss or spool capacity don't need it. The decision comes down to whether you want to rely on guesswork or math when preparing your gear.

Fishing Line Length Calculator 4 Tools

These tools handle the math for session planning, spool capacity checks, and safety buffer calculations.

#	TOOL	DESCRIPTION
01	calculate_session_estimates	This tool provides a range of required line lengths based on different safety buffer levels you choose.
02	get_buffer_impact	Use this to see exactly how much extra line a specific safety buffer adds to your total session requirement.
03	get_total_required_length	This tool calculates the total amount of line you need for a specific fishing session.
04	validate_fishing_supplies	This tool checks if the spool of line you currently have is enough for your planned number of casts.

See It in Action

Real prompts you can use once this MCP is connected to your AI agent through Vinkius Cloud.

U How much line do I need for 50 casts if I use 5 meters per cast with a 10% buffer?



You will need 275 meters of line in total.

U I have 100 meters of line. Is it enough for 20 casts at 4 meters per cast with a 5% buffer?



Yes, you have enough line. You will have a surplus of 16 meters.

U What is the impact of adding a 15% buffer to a base length of 200 meters?



Adding a 15% buffer to 200 meters adds 30 meters, resulting in a final length of 230 meters.

Frequently Asked Questions

01 How does this MCP calculate line needs?

It uses your planned number of casts and the amount of line lost per cast to determine the total length required.

02 Can I check if my current spool is enough?

Yes, you can use the validation tool to see if your current line supply covers your planned session.

03 What is a safety buffer in this context?

A safety buffer is an additional amount of line added to your total to account for unexpected loss during fishing.

04 Which AI clients can use this MCP?

You can use this with any MCP-compatible client, including Claude, Cursor, Windsurf, and VS Code.

05 Does this MCP require a subscription?

Vinkius hosts and manages the MCP, allowing you to connect and use it through your preferred client.

06 How do I know if my line is enough for a trip?

You can use the `validate\_fishing\_supplies` tool by providing your current line length and the number of planned casts to see if you have a surplus or a deficit.

07 Can I calculate different safety buffer options?

Yes, the `calculate\_session\_estimates` tool allows you to input multiple buffer percentages to compare the total line required for each scenario.

08 What is included in the line per cast calculation?

The line per cast value should account for the line deployed for distance and any line lost to tension or debris during the cast.

Go Live in 60 Seconds

Get your connection token from cloud.vinkius.com, then paste the endpoint URL into any MCP-compatible client.

YOUR MCP ENDPOINT

`https://edge.vinkius.com/[TOKEN]/mcp`

CLIENT	WHERE TO CONFIGURE
 Claude AI	Profile → Customize → Connectors → "+" → Add custom connector → Paste endpoint
 Cursor	Settings → Features → MCP Servers → "+ Add New MCP Server" → Type: SSE → Paste endpoint
 VS Code	Ctrl/Cmd+Shift+P → "MCP: Add Server" → add <code>"fishing-line-length-calculator": { "url": "..."} </code>
 Windsurf	MCP Settings → <code>mcp_settings.json</code> → Add endpoint URL
 ChatGPT	Settings → Tools & plugins → Add MCP server → Paste endpoint
 Gemini	Extensions → Add MCP Server → Paste endpoint URL

ASK AN AI ABOUT THIS

Let your preferred AI explain this MCP server

-  Ask ChatGPT 
-  Ask Claude 
-  Ask Perplexity 
-  Ask Gemini 
-  Ask Grok 

READY TO CONNECT

Fishing Line Length Calculator is live on Vinkius Cloud.

Get your connection token, paste it into your AI agent, and
start building. No SDK. No deployment. Just results.

Start at cloud.vinkius.com →

vinkius.com · support@vinkius.com

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DOCUMENT INFORMATION

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Endpoint	https://edge.vinkius.com/{token}/mcp

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