

Innovative Fiber Optics Solutions

Business Unit Fiber Optics



The Quality Connection

LEONI

Fiber Optics

Light switching · Light transportation · Light distribution

Innovative cable technology for the world of tomorrow

The LEONI name stands for first-class cable, system and development expertise. Our innovative solutions are used in the automotive industry and in key sectors of the economy such as telecommunications, IT, healthcare and energy. As an internationally active supplier of wires, optical fibers, cables and cable systems, we have kept up with changes in an increasingly networked world for decades.

This has turned us into an attractive partner and development supplier for many global industrial companies. With our ideas and developments, we contribute to the increased efficiency, safety and environmental performance of their innovations. With more than 70,000 highly qualified employees in more than 31 countries, we are focusing our business on the high-growth core markets Automotive & Commercial Vehicles, Industry & Healthcare, Communication & Infrastructure, Electrical Appliances, Wires & Strands.

Your system partner for the entire value chain

The Business Unit Fiber Optics of the LEONI Group is one of the leading suppliers of high-purity fused silica, preforms and rods, as well as optical waveguides for special applications in industry, optics, sensor technology and analytics, science, communications and in laser medicine.

From fused silica to preforms and the fiber drawn from it to fiber optic cables and complete fiber optics systems with self-developed optical components, we offer all the expertise of a global company. As such you benefit from our fiber optic products for an integrated system solution.

Our strengths – your advantage

- Unique value chain
- Client specific product and system solutions
- International development and system partner
- OEM service partner
- Worldwide presence



Product solutions

for a wide range of applications

Our areas of expertise at a glance

Communication (cabling systems for industry and buildings)

Energy (wind, solar, oil, utilities)

Mechanical & Plant Engineering (drag chain cables, fieldbus cables, optical probes, switches and splitters)

Automation & Robotics (Industrial Ethernet, bus systems, material-processing high-power lasers)

Transportation Engineering & Automotive (Rolling Stock, transport, traffic control, MOST, special optical components for automotive applications)

Industrial Laser Technology (active and passive fiber optic cables for laser welding / laser treatment)

Medical Devices & Life Science (laser probes, endoscopy components, diagnostics)

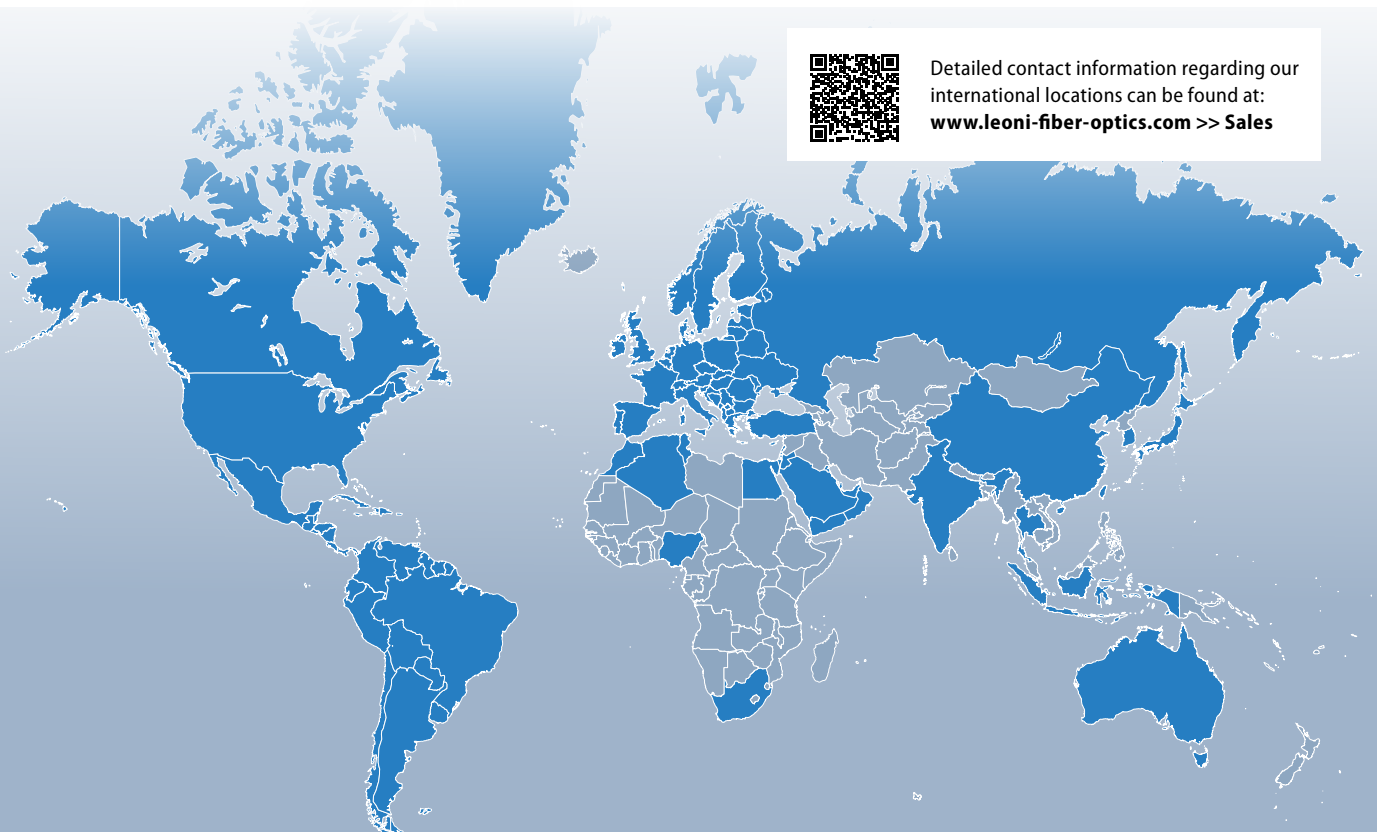
Sensor Technology, Analytics & Spectroscopy (colour, turbidity and gas sensor technology, environmental technology, chemical and food industries, astrophysics)

Naval & Maritime Engineering (control cable, marine universal & breakout cable, cable for ROV)

Optics (fused silica, preforms, rods, tubes, wafers, optical blocks)

Aerospace & Satellite Technology (optical fibers, fiber bundles, probes and control cables; special optical components, e.g. for the Pluto mission)

We are where you need us.

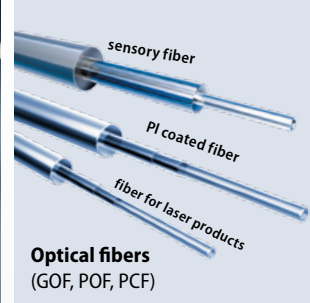


Fiber Optics

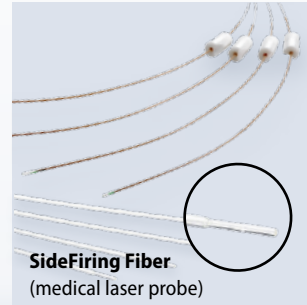
Products and Applications



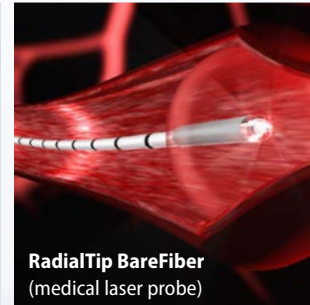
Raw materials (preforms, tubes, rods, light guiding rods)



Optical fibers (GOF, POF, PCF)



SideFiring Fiber (medical laser probe)



RadialTip BareFiber (medical laser probe)

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Communication

- Telecom / datacom optical fibers
- FiberUnit series (bundled high performance fibers)
- Cable for data center and urban infrastructure (indoor and outdoor cables and UL approved)
- Accessories (connectors and couplers, installation aid systems)
- Fiber optic switches and multiplexers
- Optical splitters

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Automation & Robotics

- Sensor fibers and bundles
- Assemblies for harsh industrial environments
- Drag chain cable and assembly
- Fiber optic probes
- Laser cable
- Fiber optic switches and multiplexers
- Optical splitters
- Accessories (e.g. field assembly kit)

2



Energy

- Sensor fibers and bundles
- Fiber Bragg Gratings (FBG)
- Wind and solar control cable
- Cable assembly for public utilities' control systems (urban infrastructure)
- Fiber optic probes
- Fiber optic switches and multiplexers
- Optical splitters
- Products for smart grids

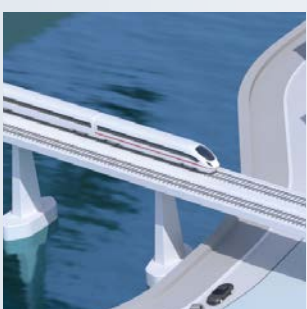
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Mechanical & Plant Engineering

- Sensor fibers and bundles
- Assemblies for harsh industrial environments
- Drag chain cable and assembly
- Control and fieldbus cable
- Fiber optic probes
 - Reflection, process, transmission and transfection probes
 - Special probe head designs
- Fiber optic switches and multiplexers
- Optical splitters

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Transportation Engineering & Automotive

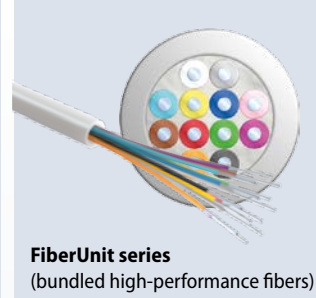
- Rolling Stock products
- Railway cables
- Cable for traffic control
- MOST
- Special optical components for automotive applications
- Fiber optic switches and multiplexers
- Optical splitters

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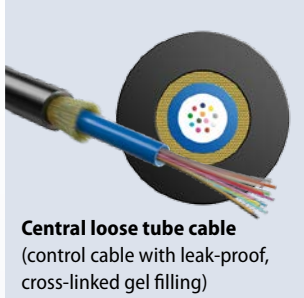


Industrial Laser Technology

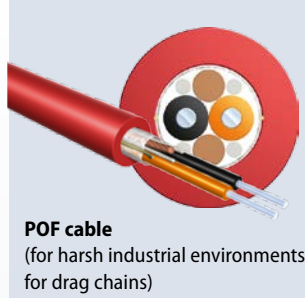
- Optical fibers for industrial laser products
- Assembled laser cables
- High power laser cables
- Connectors, couplers and adapters



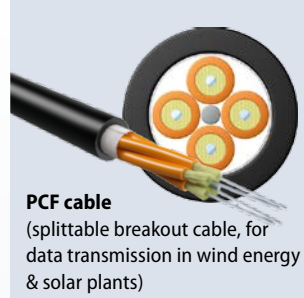
FiberUnit series
(bundled high-performance fibers)



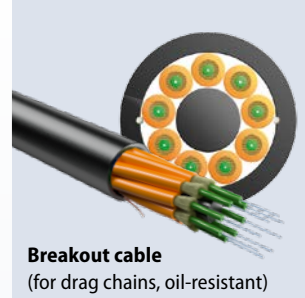
Central loose tube cable
(control cable with leak-proof, cross-linked gel filling)



POF cable
(for harsh industrial environments, for drag chains)



PCF cable
(splittable breakout cable, for data transmission in wind energy & solar plants)



Breakout cable
(for drag chains, oil-resistant)



BareFiber for holmium lasers
(medical laser probe)



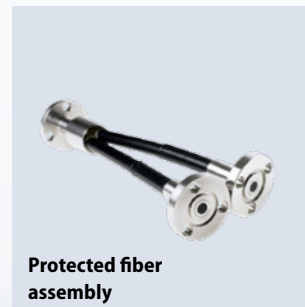
Ophthalmic EndoProbes
(medical laser probe)



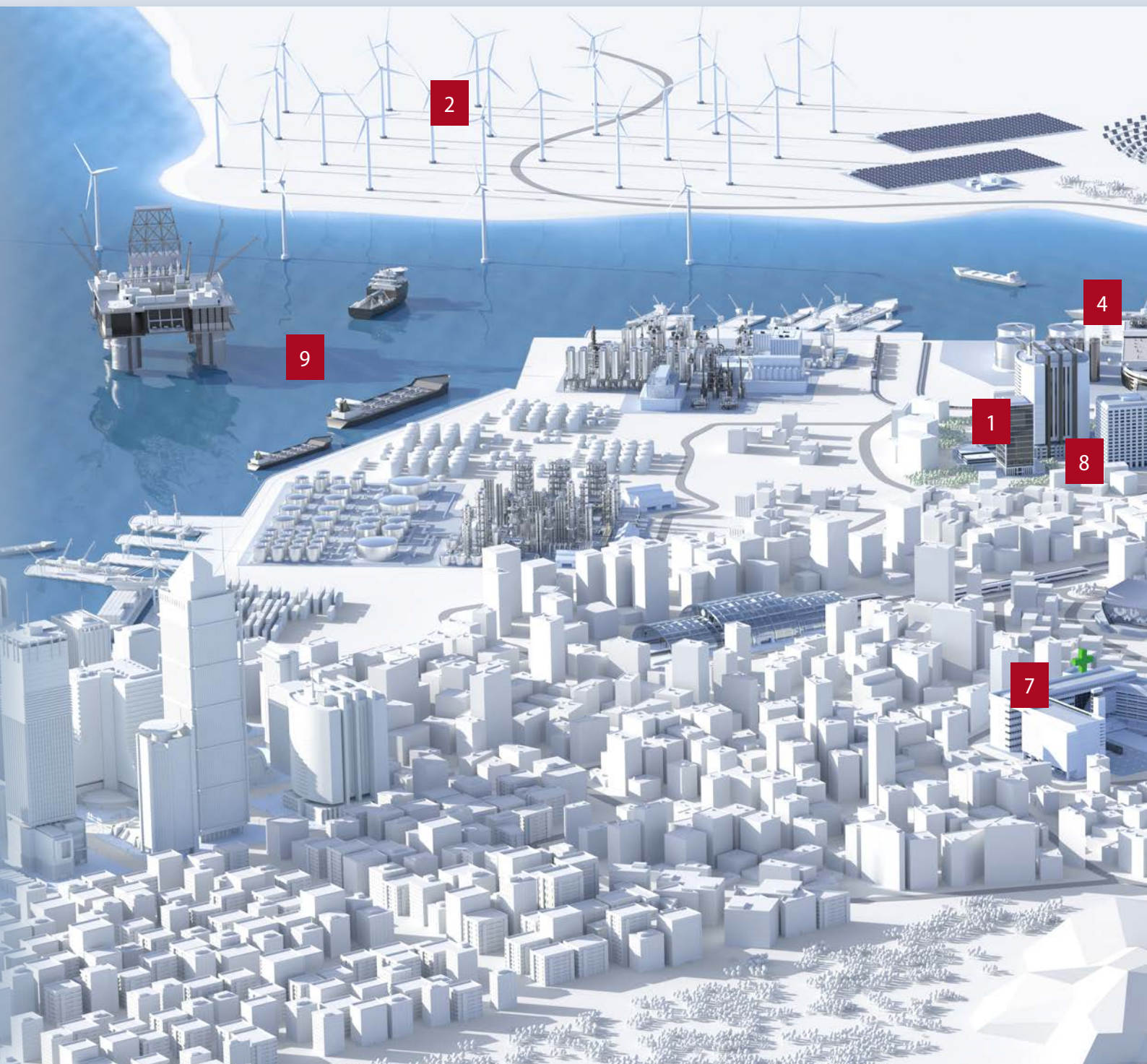
Fiber bundles with end-optics



Multi-branched fiber bundles



Protected fiber assembly



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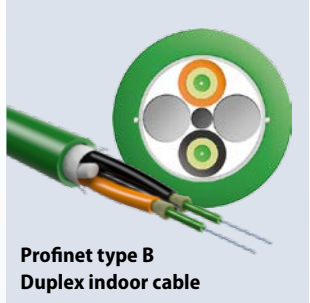
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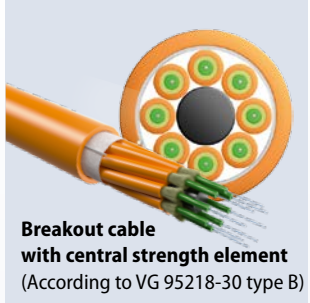
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**Profinet type B
Duplex indoor cable**



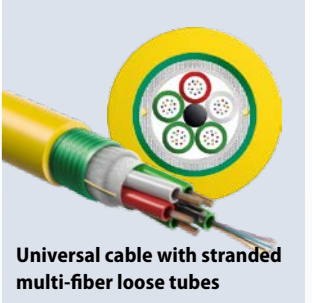
**Breakout cable
with central strength element
(According to VG 95218-30 type B)**



**Universal cable with 90
minutes of functional integrity**



**Breakout cable
(With DNV GL approval)**



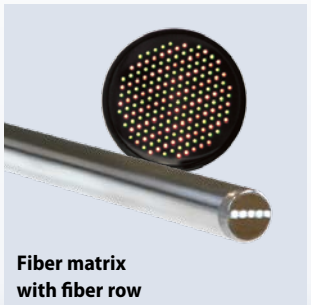
**Universal cable with stranded
multi-fiber loose tubes**



**Vacuum feed-through
assemblies**



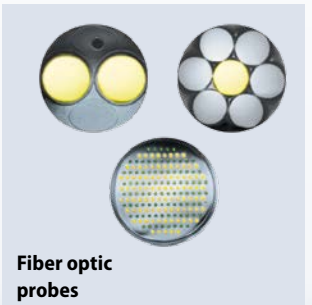
**Transmission &
transreflectance probes**



**Fiber matrix
with fiber row**



**Reflectance probe
with protective glass
and integrated air purge**



**Fiber optic
probes**



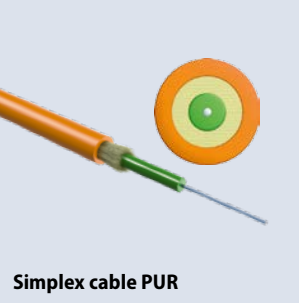
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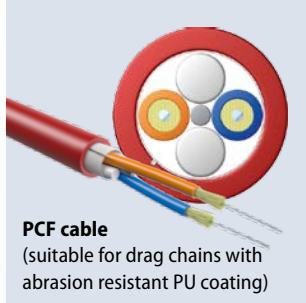
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Simplex cable PUR



PCF cable
(suitable for drag chains with abrasion resistant PU coating)



SMA500L ModeStrip laser cable



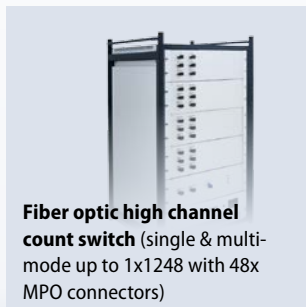
LD-80R robotic laser cable



Adapter for LD-80 (liquid cooled)



Fiber optic switch (compact housing)



Fiber optic high channel count switch (single & multi-mode up to 1x1248 with 48x MPO connectors)



Optical splitters (compact housing)



Optical splitter (19" rack)



Accessories (e.g. field assembly kit)

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Medical Devices & Life Science

- Medical (biocompatible) fibers
- Medical laser probes (Distal Tip Design)
- Ophthalmic Endoprobes
- Connectors for medical laser systems

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Optics

- Raw materials
- Preforms
- Rods
- Tubes
- Light guiding rods / light guiding fiber rods
- Wafer
- Optical blocks

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Sensor Technology, Analytics & Spectroscopy

- Optical fibers
- Optical fiber bundles
- Assembly options
- Fiber optical probes
 - Reflection, process, transmission and transmittance probes
 - Special probe head designs
- Fiber optic switches and multiplexers
- Optical splitters

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Aerospace & Satellite Technology

- Sensor fibers and bundles
- Special optical components
- Assemblies for harsh environmental conditions
- Fiber optic probes
- Fiber optic switches and multiplexers
- Optical splitters

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Naval & Maritime Engineering

- Marine universal cable
- Marine breakout cable with DNV GL approval
- Marine breakout cable with military approval
- Drive control cable
- ROV cable (Remote Operated Vehicles)



www.leoni-fiber-optics.com

Find out more:

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