

Introduction of oil detector

– Apolarm C & M, No.1 Market Share in Japan –

<http://www.asahi-kasei.co.jp/ats/index.html>

https://youtu.be/_WKhlZxbXZ8

Asahi Kasei Technosystem Corporation

Technical Sales Dept.

Apolarm M(LMD-3000/LMD-3000EX)

Don't miss even a very small amount of oil !

It can detect micron-order oil film and alert in drainage channels, drainage pits, oil-water separation tanks, water purification facilities, etc. Use it for early detection of oil leaks that threaten the environment of rivers and the sea and prevention of oil spills to the outside.

Unaffected to
sunlight, water
ripples and
flows, without
false alarms

Easy
maintenance

The replacement cycle
of laser diode is 4
years.

Detectable
distance

4m

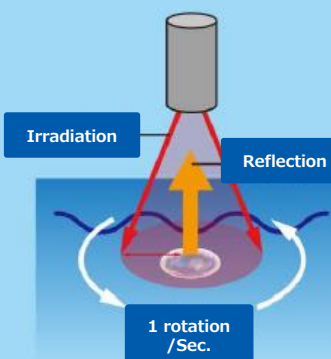
To static water
surface, 6m Max

Easy
installation
without any
adjustment of
optical axis

Installable
outdoors by
water
resistant
construction
(Equivalent to IP66)



Detection principle



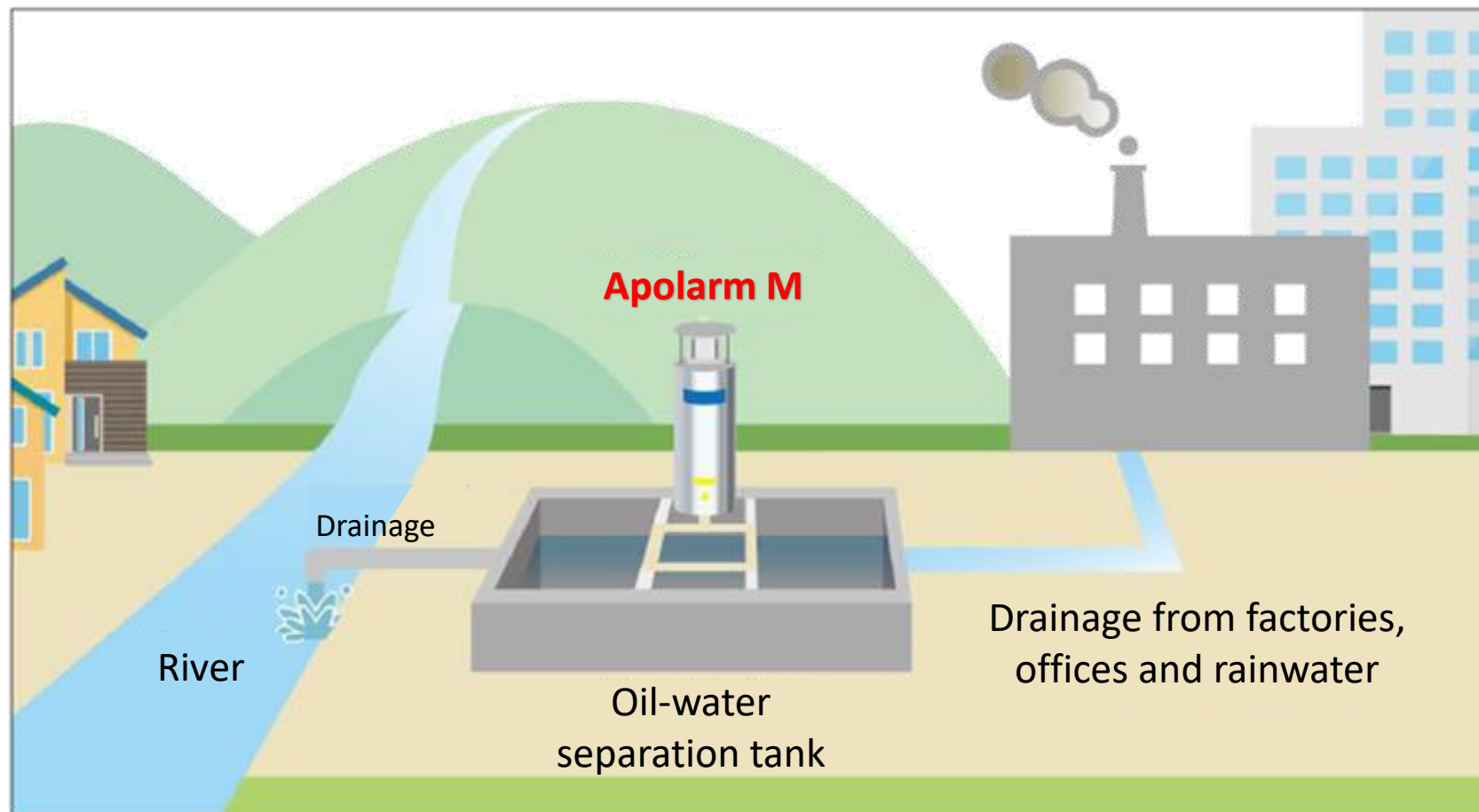
Irradiate the water surface with a laser and scan in a circular motion. At that time, it can detect an oil film with a few micron meter thickness by capturing the strength of reflecting laser light from water surface.

Refractive index

Water	1.33		
Gasoline	1.40	Glycerin	1.47
Kerosene	1.45	Olive oil	1.47
Light oil	1.45	Toluene	1.50
Heavy oil	1.45	Benzene	1.50

Apolarm M(LMD-3000/LMD-3000EX)

Installation examples and adoption results



Chemical plant

Oil-related facilities

Power generation plant

Cement manufacturing
plant

Paper manufacturing

Water purification
facility, beverage
factory, etc.

Apolarm C(CSR-3005E & AS-40E)

Prevent environmental destruction due to oil leaks !

Please use it to prevent oil spill accidents in tank yards where a large amount of oil and oils are stored.

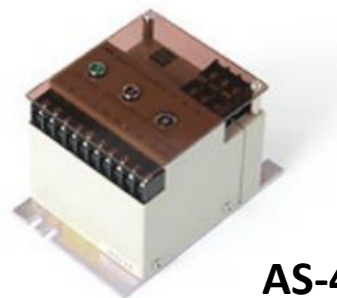
Completely sealed detector



CSR-3005E



Intrinsically safe explosion-proof signal converter



AS-40E

Pressure tight case type explosion-proof signal converter



AS-40EX(Optional)

Certified intrinsically safe explosion-proof product

Long life and reliable detection

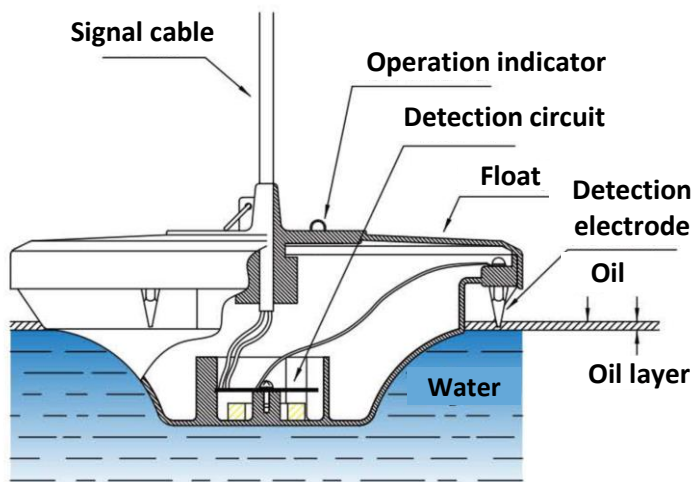
No special maintenance is required.

Sold over 30,000 units
The No.1 share in Japan

Detector diameter,
φ300mm

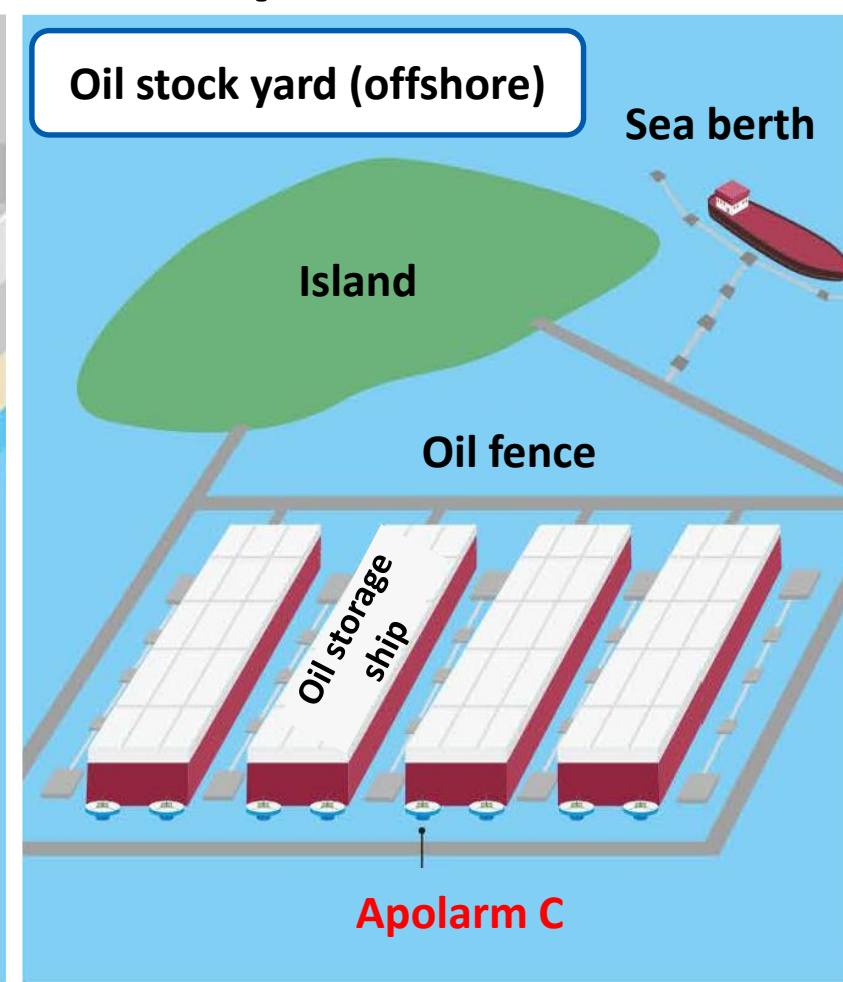
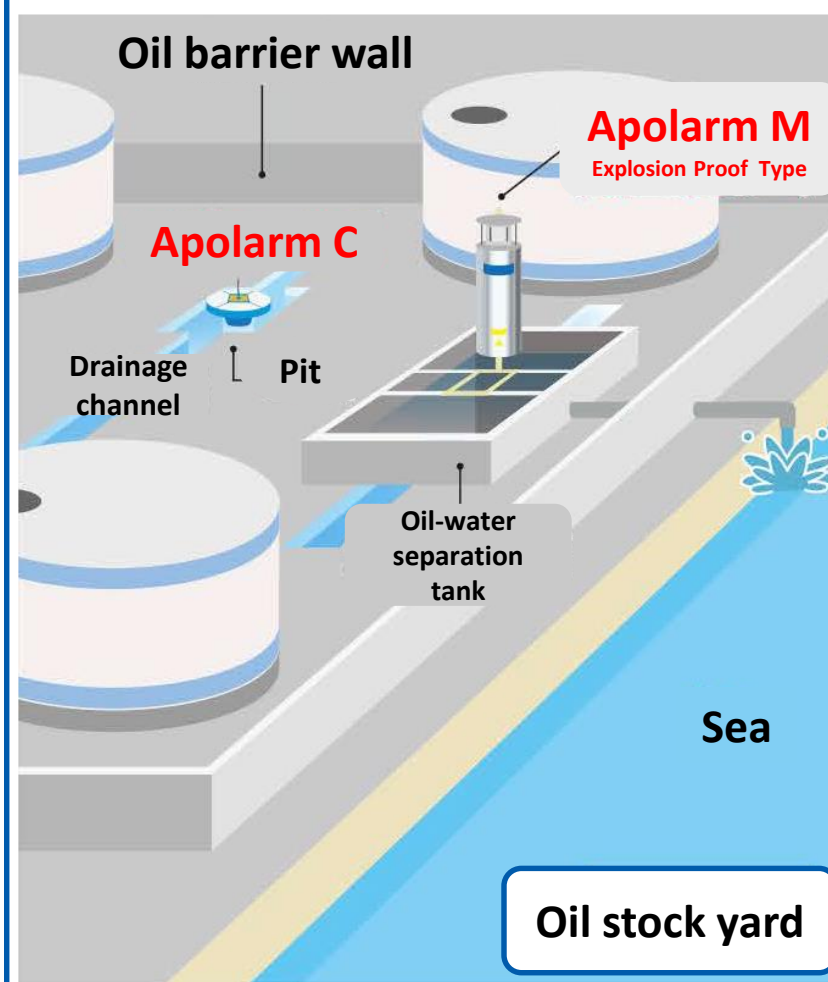
Apolarm C(CSR-3005E & AS-40E)

Detection principle



The detector is completely sealed and has three electrodes that are normally in contact with water. When oil flows between the water surface and the electrodes, the capacitance changes significantly. This change is detected and the contact signal of the oil spill detection alarm is output.

Installation examples



Creating for Tomorrow

The commitment of the Asahi Kasei Group:

To do all that we can in every era to help the people of the world make the most of life and attain fulfillment in living.

Since our founding, we have always been deeply committed to contributing to the development of society, boldly anticipating the emergence of new needs.

This is what we mean by “Creating for Tomorrow.”

AsahiKASEI

Confidential