

Sight Indicator Plug

Customizable Body · Floating Ball Level Indicator · SAE J514 / SAE J1926

BRAND

Lumiglas®

MAX. PRESSURE

PS 35 bar / MWP 500 psig

COUNTRY OF ORIGIN

China

BODY MATERIAL

Brass

Stainless steel/Carbon steel

Customizable

MAX. TEMPERATURE

80 °C / 175 °F

SEAL TYPE

O-Ring Face Seal (ORFS)

1. Product Images

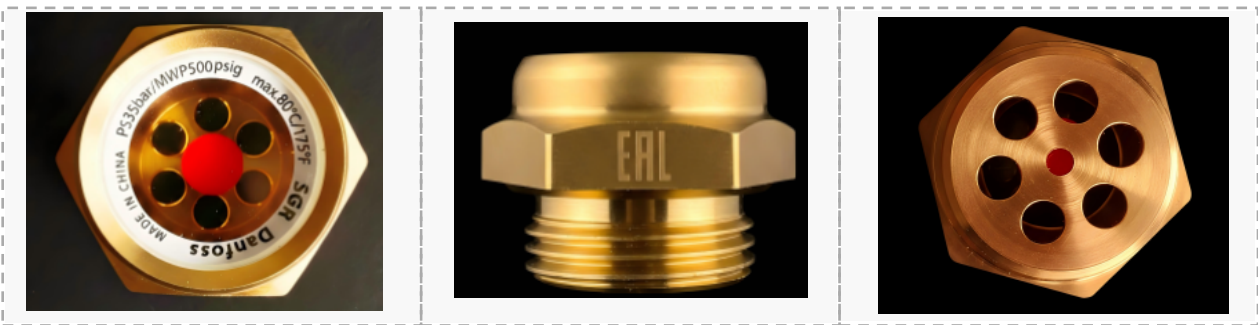


Fig. 1 — Front face, floating ball visible Fig. 2 — Side profile, hex body & thread Fig. 3 — Rear face, thread & O-ring seat

2. Product Overview & Value Proposition

The **Lumiglas® Sight Indicator Plug** is a precision brass (other material on request) plug combining a sealed borosilicate glass window with a buoyant **high-visibility red floating ball indicator**. As a direct replacement for SAE J1926 and BSP drain/fill points, it enables real-time fluid presence confirmation without system disassembly — reducing downtime, preventing dry-run damage, and eliminating spillage from conventional plug removal.

Feature	Standard Drain Plug	Lumiglas® Sight Indicator Plug
Fluid level check	Remove plug (spill / contamination risk)	Visual — no removal required
Seal type	Thread sealant (PTFE / compound)	O-Ring Face Seal (ORFS) No sealant needed
Indicator	None	Red buoyant ball — go/no-go
SAE J1926 compatible	Varies	Direct drop-in replacement
Maintenance time	High	Minimal

3. Sight Indicator Operating Principle

The indicator housing contains a buoyant red polymer ball. Interpretation is immediate and unambiguous:

State	Ball Position	Meaning
● FLUID PRESENT	Ball floating — visible at glass face	Fluid at or above port level ✓
● FLUID ABSENT	Ball sunk — not visible	Fluid below port level or absent ✗

No calibration required. The ball responds only to liquid presence — no training or interpretation skill needed. Borosilicate glass resists hydraulic oils, gear oils, water-glycol, and common refrigerants.

4. Technical Specifications

Parameter	Value
Body Material	Brass (other material on request)
Window Material	Borosilicate glass
Indicator Ball	Buoyant polymer, Red (high-visibility)
Seal Type	O-Ring Face Seal (ORFS)
O-Ring — Standard	Buna-N (NBR)
O-Ring — Option	Viton® (FKM) — for refrigerants / aggressive media; suffix -V
Thread Standard	SAE J514 (UN 2A) / SAE J1926 port compatible
Drive Type	External Hex (spanner flat)
Max. Working Pressure	35 bar / 507 psi (MWP 500 psig)
Max. Operating Temp.	80 °C / 175 °F
Min. Operating Temp.	-30 °C / -22 °F (NBR) -40 °C / -40 °F (FKM)
Applicable Fluids	Hydraulic oil, gear oil, lubrication oil, water-glycol, refrigerant (FKM)
Brand / Origin	Lumiglas® / Made in China

5. Dimensions & Ordering Reference

SAE J514 · All dimensions in inches · Tolerances: A ±0.01 · B +0/−0.5 · C ±0.003 · D +0.005/−0.006

Part No.	Size	Thread (UN 2A)	"A" (in)	"B" (in)	"C" (in)	"D" (in)	O-Ring (mm)
LMG-00	00	10–32	.31	.12	.221	.061	3.0 × 1.25
LMG-01	01	1/4–24	.44	.12	.296	.125	4.5 × 1.5
LMG-02	02	5/16–24	.38	.12	.348	.125	6.0 × 1.5
LMG-03	03	3/8–24	.38	.12	.411	.125	7.0 × 1.5
LMG-04	04	7/16–20	.45	.12	.477	.188	8.0 × 1.5
LMG-05	05	1/2–20	.45	.12	.540	.188	10.0 × 1.5
LMG-06	06	9/16–18	.48	.12	.656	.250	12.1 × 1.6
LMG-08	08	3/4–16	.56	.15	.800	.313	15.6 × 1.78
LMG-10	10	7/8–14	.63	.15	.930	.375	18.0 × 2.0
LMG-12	12	1-1/16–12	.75	.15	1.130	.563	22.3 × 2.4

★ Highlighted row = Size 12 (recommended application size). For Viton® O-ring, append -V (e.g. LMG-12-V).

6. Typical Applications

Industry / Equipment	Application Point
Industrial Gearboxes & Reducers	Drain/fill port — fluid presence & level check
Hydraulic Power Units (HPU)	Low-point drain monitoring
Mobile Hydraulics	Construction, agriculture, mining equipment
Machine Tool Lubrication	Sump drain plug with visual level confirmation
Refrigeration & HVAC	Compressor oil sump — FKM O-ring option
Marine & Offshore	Gearbox drain in corrosive environment
Compressor Crankcase	Oil presence and level verification

7. Installation

Pre-Installation Checklist

Step	Action
1	Verify port thread size and SAE J1926 port form against dimension table
2	Confirm O-ring size; inspect for damage — replace if necessary
3	Lubricate O-ring lightly with system fluid or clean petroleum jelly
4	DO NOT apply PTFE tape or pipe sealant — ORFS is the primary seal

Tightening Torque Reference

Size Group	Torque (N·m)	Torque (ft·lbf)
Size 00 – 02	8 – 12	6 – 9
Size 03 – 05	20 – 30	15 – 22
Size 06 – 08	40 – 55	30 – 41
Size 10 – 12	65 – 90	48 – 66

Note: Torque values are indicative. Refer to OEM specifications and SAE J1926. Do not overtighten — O-ring extrusion will cause seal failure.

8. Quality & Compliance

Item	Detail
Dimensional Standard	SAE J514 / SAE J1926
Thread Inspection	GO / NO-GO gauging per ASME B1.2
Pressure/Temp Marking	PS 35 bar · MWP 500 psig · max. 80 °C / 175 °F (stamped on glass face)
Factory Test	100% hydrostatic leak test
Material Certification	Available on request (EN 10204 2.1)

9. Contact & Ordering

Lumiglas® — Sales & Technical Support	
Company:	Lumistar Special Glass Technology Co., Ltd.
Email:	sophia@js-lumiglas.com
Tel:	+8618913035768
Web:	https://lumiglas.ltd/
Address:	Building 22, No. 8 Kangzheng Road, Longchi Street, Luhe District, Nanjing, Jiangsu Province