PRODUCT CATALOG

Variable Area Flow Meters
Constant Flow Regulators
Seal Water Flow Meters
Oval Gear Flow Meters and Displays
Oil Lubrication Flow Monitoring Systems
Oil Analyzers
Differential Pressure Meters
Check Valves
Quality Products from a Trusted Manufacturer

We are happy to present our product catalogue with Kytola Instrument Oy’s reliable and high quality flow measuring and monitoring instruments. Our legacy is based on long-term experience of designing and manufacturing tailor-made equipment for most industrial branches and for equipment and machine builders, OEM’s. The key applications are found in pulp and paper, energy, chemical, mining, steel and food industries.

Our goal is to help all our customers to succeed and further improve their operational reliability by providing proven solutions to process and application challenges. We do this by designing and delivering accurate quality products that are made to endure the demanding conditions in industrial environments and perform reliably.

Our products are precision manufactured to help make your processes and systems more efficient. This catalog only shows a small portion of our capabilities. If you do not find exactly what you are looking for, please do not hesitate to contact us. We are known for being agile and solution-orientated. It is everyday business to us to customize our products to suit most needs and specifications.

Our products are designed and manufactured at our premises in Muurame, Finland. This facility also houses our corporate head quarter, research, development and testing centers. Having these departments within one location allows us to quickly react to specific customer product requirements and ever changing market needs and conditions.

We also stock select products in locations worldwide, which allows us to efficiently meet our customers’ demand for short product lead-time together with superior customer service. Based on your process and system needs, our technical support specialists suggest instrumentation to help you with your specific application requirements. In other words: you present your needs and challenges and we provide a cost-efficient and tailored solution.

We look forward to serving you.

Sales phone: +358 20 779 0690
Email: sales@kytola.com
www.kytola.com
Quality Products from a Trusted Manufacturer

Variable Area Flow Meters
- Single Tube Flow Meters - Page 1
- Multi-tube Flow Meters - Page 7
- Metal Tube Flow Meters - Page 8

Constant Flow Regulators - Page 9

Seal Water Flow Meters - Page 10

Oval Gear Flow Meters and Displays - Page 11

Oil Lubrication Flow Monitoring Systems - Page 13

Oil Analyzers - Page 15

Differential Pressure Meters - Page 16

Check Valves - Page 16
VARIABLE AREA FLOW METERS

**Key Features:**
- High quality acrylic flow meter
- Clear, easy to read scale
- Inductive low and/or high flow alarm (option)
- Maximum pressure 20 bar
- Maximum temperature 75°C

**Applications:**
- Water treatment
- Sealing water measurements
- Gas flow measurements

**Measuring Range:**
- Water +20°C
  - min 2–20 mL/min, max 0.5–6.5 L/min
  - Air +20°C / 1.013 bar (abs)
  - min 0.1–0.9 NL/min, max 20–220 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Body:**
- Acrylic (PMMA)

**Connections:**
- BSP 3/8”

**Options:**
Please contact us for available options.

---

**Key Features:**
- High quality acrylic flow meter
- Clear, easy to read scale
- Maximum pressure 20 bar
- Maximum temperature 75°C

**Applications:**
- Water treatment
- Sealing water measurements
- Gas flow measurements

**Measuring Range:**
- Water +20°C
  - min 2–20 mL/min, max 0.5–6.5 L/min
  - Air +20°C / 1.013 bar (abs)
  - min 0.1–0.9 NL/min, max 20–220 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Body:**
- Acrylic (PMMA)

**Connections:**
- BSP 3/8” (Adapters available for NPT)

**Options:**
Please contact us for available options.

---

**Key Features:**
- High quality acrylic flow meter
- Clear, easy to read scale
- Maximum pressure 20 bar
- Maximum temperature 75°C

**Applications:**
- Water treatment
- Sealing water measurements
- Gas flow measurements

**Measuring Range:**
- Water +20°C
  - min 0.5–5 L/min, max 5–30 L/min
  - Air +20°C / 1.013 bar (abs)
  - min 20–200 NL/min, max 100–1000 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Body:**
- Acrylic (PMMA)

**Connections:**
- BSP 1” (Adapters available for NPT)

**Options:**
Please contact us for available options.
VARIABLE AREA FLOW METERS

**E**

Key Features:
- High quality acrylic flow meter
- Available in single-tube and multi-tube versions
- Flow adjustment valve
- Inductive low and/or high flow alarm (option)
- Maximum pressure 20 bar
- Maximum temperature 75°C

Applications:
- Water and air purging
- Shield gas measurements
- Other gas and liquid measurements

Measuring Range:
- Water +20°C
  min 2–16 mL/min, max 0.5–2.5 L/min
- Air +20°C / 1.013 bar (abs)
  min 0.1–0.8 NL/min, max 10–90 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Body:
- Acrylic (PMMA)

Connections:
- BSP 1/4" (Adapters available for NPT)

Options:
Please contact us for available options.

**EA**

Key Features:
- High quality acrylic flow meter
- Adjustable alarm
- Flow adjustment valve
- Various alarm sensor choices
- Maximum pressure 10 bar
- Maximum temperature 75°C

Applications:
- Heat treatment ovens
- Automatic welding lines

Measuring Range:
- Water +20°C
  min 2–16 mL/min, max 0.5–2.5 L/min
- Air +20°C / 1.013 bar (abs)
  min 0.1–0.8 NL/min, max 10–90 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Body:
- Acrylic (PMMA)

Connections:
- BSP 1/4" (Adapters available for NPT)

Options:
Please contact us for available options.

**L**

Key Features:
- Sturdy, industrial flow meter
- Flow adjustment valve
- Clear, easy to read scale
- Maximum pressure 20 bar
- Maximum temperature 80°C

Applications:
- Water and air purging
- Sealing liquid monitoring

Measuring Range:
- Water +20°C
  min 2–18 mL/min, max 0.5–3 L/min
- Air +20°C / 1.013 bar (abs)
  min 0.1–0.9 NL/min
  max 15–110 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Body:
- Acrylic (PMMA), Grilamid (PA-12) or Trogamid (PA6-3-T)

Connections:
- BSP or NPT 1/4"

Options:
Please contact us for available options.

**KPM**

Key Features:
- Solid, compact construction
- Clog resistant flow adjustment valve
- Built-in tube cleaner
- All models are alarm-ready
- Excellent corrosion and heat resistance
- Maximum pressure 20 bar
- Maximum temperature 100°C

Applications:
- Industrial water purging
- Contaminated water

Measuring Range:
- Water +20°C
  min 0.025–0.4 L/min
  max 0.05–1 L/min

Body:
- POM or PVDF

Connections:
- BSP/NPT 1/4" or 3/8" or 10 mm compression fittings

Options:
Please contact us for available options.
**HV**

**Key Features:**
- Sturdy, industrial flow meter
- Good corrosion resistance
- Threaded or socket type connections
- Inductive low and/or high flow alarm (option)
- Maximum pressure
  - 10 bar @ 20°C (10 bar @ 80°C)
- Maximum temperature
  - 50°C @ 2 bar (120°C @ 2 bar)

**Applications:**
- Process and chemical industries
- Water treatment plants
- Agricultural applications
- Flow measurement in PVC piping
- Reverse osmosis

**Measuring Range:**
- Water +20°C
  - min 0.02–0.11 m³/h, max 0.3–1.8 m³/h
- Air +20°C / 1.013 bar (abs)
  - min 0.015–0.07 Nm³/min, max 0.2–0.9 Nm³/min
- Other water and air ranges also available

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- BSP/NPT 1/2" or 20 mm socket type connection

---

**HK**

**Key Features:**
- Sturdy, industrial flow meter
- Good corrosion resistance
- Threaded or socket type connections
- Inductive low and/or high flow alarm (option)
- Maximum pressure
  - 10 bar @ 20°C (10 bar @ 80°C)
- Maximum temperature
  - 50°C @ 2 bar (120°C @ 2 bar)

**Applications:**
- Process and chemical industries
- Water treatment plants
- Agricultural applications
- Flow measurement in PVC piping
- Reverse osmosis

**Measuring Range:**
- Water +20°C
  - min 0.3–1.2 m³/h, max 1–4.75 m³/h
- Air +20°C / 1.013 bar (abs)
  - min 0.14–0.6 Nm³/min, max 0.4–2.2 Nm³/min
- Other water and air ranges also available

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- BSP/NPT 3/4" or 25 mm socket type connection

---

**HT**

**Key Features:**
- Sturdy, industrial flow meter
- Good corrosion resistance
- Threaded or socket type connections
- Inductive low and/or high flow alarm (option)
- Maximum pressure
  - 10 bar @ 20°C (10 bar @ 80°C)
- Maximum temperature
  - 50°C @ 2 bar (120°C @ 2 bar)

**Applications:**
- Process and chemical industries
- Water treatment plants
- Agricultural applications
- Flow measurement in PVC piping
- Reverse osmosis

**Measuring Range:**
- Water +20°C
  - min 0.5–3 m³/h, max 4–22 m³/h
- Air +20°C / 1.013 bar (abs)
  - min 0.35–2 Nm³/min, max 2–14 Nm³/min
- Other water and air ranges also available

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- BSP/NPT 1½" or 50 mm socket type connection
VARIABLE AREA FLOW METERS

**KL**

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- No flow adjusting valve
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Water treatment
- Oil measurements
- Sealing water measurements of vacuum pumps

Measuring Range:
- Water +20°C
  min 7.5–40 L/min, max 10–120 L/min
- Air +20°C / 1.013 bar (abs)
  min 200–1200 NL/min, max 400–3000 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- BSP or NPT 1”

Options:
Please contact us for available options.

**K**

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- Flow adjusting valve on outlet
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Water treatment
- Oil measurements
- Sealing water measurements of vacuum pumps

Measuring Range:
- Water +20°C
  min 7.5–40 L/min, max 10–120 L/min
- Air +20°C / 1.013 bar (abs)
  min 200–1200 NL/min, max 400–2800 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- BSP or NPT 1”

Options:
Please contact us for available options.

** KD **

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- Flow adjusting valve on inlet
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Measuring and monitoring gas flows

Measuring Range:
- Air +20°C / 1.013 bar (abs)
  min 200–1200 NL/min, max 400–3000 NL/min

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- BSP or NPT 1”

Options:
Please contact us for available options.

**KLFH**

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- Flow adjusting valve on outlet
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Water treatment
- Oil measurements
- Sealing water measurements of vacuum pumps

Measuring Range:
- Water +20°C
  min 7.5–40 L/min, max 10–120 L/min
- Air +20°C / 1.013 bar (abs)
  min 200–1200 NL/min, max 400–3000 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- DN 25 or DN 40 flanges
- ANSI 1” or ANSI 1½” flanges

Options:
Please contact us for available options.
VARIABLE AREA FLOW METERS

**SINGLE TUBE**

---

**TL**

**Key Features:**
- Sturdy, industrial flow meter
- Protected flow tube
- Inductive low and/or high flow alarm (option)
- Maximum pressure 20 bar
- Maximum temperature 80°C (120°C)

**Applications:**
- Flush water applications
- Lubrication oil measurement for gear boxes
- Sealing water measurement for vacuum pumps

**Measuring Range:**
- Water +20°C
  - min 7.5–55 L/min, max 50–400 L/min
- Air +20°C / 1.013 bar (abs)
  - min 0.3–1.9 Nm³/min, max 1–12 Nm³/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- BSP or NPT 2”

**Options:**
Please contact us for available options.

---

**TTFH**

**Key Features:**
- Sturdy, industrial flow meter
- Protected flow tube
- Inductive low flow alarm (option)
- Maximum pressure 16 bar
- Maximum temperature 75°C

**Applications:**
- Water treatment
- Power plants
- Swimming pools

**Measuring Range:**
- Water +20°C
  - min 7.5–55 L/min, max 50–400 L/min
- Air +20°C / 1.013 bar (abs)
  - min 0.3–2 Nm³/min, max 1–12 Nm³/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Flow Tube:**
- Acrylic (PMMA)

**Connections:**
- DN 80 flanges

**Options:**
Please contact us for available options.

---

**TLFH**

**Key Features:**
- Sturdy, industrial flow meter
- Protected flow tube
- Inductive low and/or high flow alarm (option)
- Maximum pressure 16 bar
- Maximum temperature 80°C (120°C)

**Applications:**
- Water treatment
- Flush water applications
- Sealing water measurement for vacuum pumps

**Measuring Range:**
- Water +20°C
  - min 7.5–55 L/min, max 50–400 L/min
- Air +20°C / 1.013 bar (abs)
  - min 0.3–2 Nm³/min, max 1–12 Nm³/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- DN 50 or ANSI 2” flanges

**Options:**
Please contact us for available options.

---
VARIABLE AREA FLOW METERS

**VL**

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- No flow adjusting valve
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Sealing and cooling water measurements
- Flush water applications
- Lubrication oil measurements
- Gas flow measurements

Measuring Range:
- Water +20°C
  - min 0.4–2 L/min, max 5–30 L/min
  - Air +20°C / 1.013 bar (abs)
  - min 15–75 NL/min, max 150–900 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- BSP or NPT 1/2”

Options:
- Please contact us for available options.

**VE**

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- Flow adjusting valve on outlet
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Sealing and cooling water measurements
- Flush water applications
- Lubrication oil measurements
- Gas flow measurements

Measuring Range:
- Water +20°C
  - min 0.4–2 L/min, max 5–30 L/min
  - Air +20°C / 1.013 bar (abs)
  - min 15–70 NL/min, max 150–700 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- BSP or NPT 1/2”

Options:
- Please contact us for available options.

**VD**

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- Flow adjusting valve on inlet
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Sealing and cooling water measurements
- Flush water applications
- Lubrication oil measurements
- Gas flow measurements

Measuring Range:
- Water +20°C
  - min 0.4–2 L/min, max 7.5–32.5 L/min
  - Air +20°C / 1.013 bar (abs)
  - min 15–75 NL/min, max 150–900 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- BSP or NPT 1/2”

Options:
- Please contact us for available options.

**VLFH**

Key Features:
- Sturdy, industrial flow meter with protected flow tube
- Large selection of materials
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

Applications:
- Sealing and cooling water measurements
- Flush water applications
- Lubrication oil measurements
- Gas flow measurements

Measuring Range:
- Water +20°C
  - min 0.4–2 L/min, max 5–30 L/min
  - Air +20°C / 1.013 bar (abs)
  - min 15–75 NL/min, max 150–900 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

Flow Tube:
- Grilamid (PA-12) or PES

Connections:
- DN 15 or DN 25 flanges
  - ANSI 1/2” or ANSI 1” flanges

Options:
- Please contact us for available options.
**Key Features:**
- High quality acrylic flow meter
- Available in single-tube and multi-tube versions (max 12 tubes)
- Flow adjustment valve
- Maximum pressure 20 bar
- Maximum temperature 75°C

**Applications:**
- Water and air purging
- Shield gas measurements
- Other gas and liquid measurements

**Measuring Range:**
- Water +20°C
  min 2–16 mL/min, max 0.5–2.5 L/min
- Air +20°C / 1.013 bar (abs)
  min 0.1–0.8 NL/min, max 10–90 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Body:**
- Acrylic (PMMA)

**Connections:**
- BSP 1/2˝ common inlet, BSP 1/4˝ separate outlets
  (Adapters available for NPT)

**Options:**
Please contact us for available options.

---

**Key Features:**
- Sturdy, industrial flow meter with protected flow tubes
- Available in single-tube and multi-tube versions (max 7 tubes)
- Flow adjustment valves on outlet
- Inductive low flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

**Applications:**
- Sealing and cooling water measurements
- Flush water applications
- Lubrication oil measurements
- Gas flow measurements

**Measuring Range:**
- Water +20°C
  min 0.4–2 L/min, max 5–30 L/min
- Air +20°C / 1.013 bar (abs)
  min 15–70 NL/min, max 150–700 NL/min
- Other water and air ranges, and scales for alternative liquids and gases also available

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- BSP/NPT 3/4˝ common inlet, BSP/NPT 1/2˝ separate outlets

**Options:**
Please contact us for available options.
VARIABLE AREA FLOW METERS

MP

Key Features:
- Stainless steel wetted parts
- High pressure and temperature resistance
- Withstands aggressive media
- Maximum pressure: 235 bar
- Maximum temperature: 150°C without alarms

Applications
- Chemical and petrochemical industries
- Power plants
- General flow measurements

Measuring Range:
- Water +20°C
  min 1–10 L/h, max 50–400 L/h
- Air +20°C / 1.013 bar (abs)
  min 50–300 NL/h, max 1000–12000 NL/h

Connections:
- BSP/NPT/BSPT 1/4” or 1/2” depending on range

Options:
Please contact us for available options.

MP WITH VALVE

Key Features:
- Stainless steel wetted parts
- High pressure and temperature resistance
- Withstands aggressive media
- Flow adjusting valve
- Panel mounting
- Maximum pressure: 100 bar
- Maximum temperature: 150°C without alarms

Applications
- Chemical and petrochemical industries
- Power plants
- General flow measurements

Measuring Range:
- Water +20°C
  min 1–10 L/h, max 50–400 L/h
- Air +20°C / 1.013 bar (abs)
  min 50–300 NL/h, max 1000–12000 NL/h

Connections:
- BSP/NPT 1/4” or 1/2” depending on range

Options:
Please contact us for available options.
CONSTANT FLOW REGULATORS

2851

Key Features:
- Provides constant flow of liquids or gases regardless of pressure variations
- High performance, reliable operation
- Stainless steel construction
- Can be used with Model L flow meter

Applications:
- Control of sealwater or flushwater
- Water or air purging

Flow Range:
- Water +20°C
  min 15 – 85 mL/min, max 0.5 – 3 L/min
- Air +20°C / 1.013 bar (abs)
  min 0.5 – 2.5 NL/min, max 10 – 110 NL/min
- Air scale has always to be calibrated according to the actual inlet pressure and temperature.

Maximum differential pressure
- 20 bar

Body:
- AISI 316

Connections:
- BSP or NPT 1/4"

Options:
Please contact us for available options.

2914

Key Features:
- Provides constant flow of liquids regardless of pressure variations
- Needle valve for flow adjustment
- High performance, reliable operation
- Stainless steel construction
- Can be used with Model VL flow meter

Applications:
- Control of sealwater and flushwater
- Water purging
- Batching of liquids

Flow Range:
- Water +20°C
  max 20 L/min

Maximum differential pressure
- 12 bar (20 bar on request)

Body:
- AISI 316

Connections:
- BSP or NPT 1/2"

Options:
Please contact us for available options.

3630

Key Features:
- Provides constant flow of liquids or gases regardless of pressure variations
- Adjustable alarm
- High performance, reliable operation
- Aluminium or stainless steel construction
- Supplied with Model L flow meter

Applications:
- Water or air purging
- Gas purging in Δp measurements
- Hydrostatic density measurements

Flow Range:
- Water max 1.5 L/min
- Air max 60 NL/min at 6 barg
- Air scale has always to be calibrated according to the actual inlet pressure and temperature.

Maximum differential pressure
- 10 bar

Body:
- AISI 316 or aluminium

Connections:
- BSP or NPT 1/4"

Options:
Please contact us for available options.

3631

Key Features:
- Provides constant flow of liquids or gases regardless of pressure variations
- Adjustable alarm
- High performance, reliable operation
- Aluminium or stainless steel construction
- Supplied with Model L flow meter

Applications:
- Water purging for instruments
- Air purging in level measurements
- Gas purging in Δp measurements

Flow Range:
- Water max 1.5 L/min
- Air max 60 NL/min at 6 barg
- Air scale has always to be calibrated according to the actual medium, inlet pressure and temperature.

Maximum differential pressure
- 10 bar

Body:
- AISI 316 or aluminium

Connections:
- BSP or NPT 1/4"

Options:
Please contact us for available options.
SEAL WATER FLOW METERS

SLM

Key Features:
• Solid, compact construction
• Clog resistant flow control valve
• Built-in tube cleaner
• All models are alarm-ready
• Compatibility with all seal types
• Corrosion resistant materials

Applications:
• Single and double mechanical seals
• Gland packings
• Flushing and purge water applications

Measuring Range:
• Water +20°C
  min 0.025–0.4 L/min, max 1–13 L/min
• Other water ranges also available

Body:
• POM or PVDF

Connections:
• 10 mm hose barb connectors, standard
• Other type of connectors also available

Options:
Please contact us for available options.

SLMx-2

Key Features:
• Solid, compact construction
• Clog resistant flow regulating valve
• Built-in tube cleaner
• All models are alarm-ready
• Corrosion resistant materials

Applications:
• Double mechanical seals

Measuring Range:
• Water +20°C
  min 0.05–1.0 L/min, max 0.5–8.0 L/min
• Other water ranges also available

Body:
• POM or PVDF

Connections:
• 10 mm hose barb connectors, standard
• Other type of connectors also available

Options:
Please contact us for available options.
OVAL GEAR FLOW METERS AND DISPLAYS

**SR SINGLE**

**Key Features:**
- Large viscosity range 30—1000 cSt
- Independent of oil viscosity changes
- Pulse output
- Sturdy construction
- Flow adjusting valve
- Service valve (SR-1...6)
- Maximum pressure 10 bar (20 bar on request)
- Maximum temperature 80°C

**Applications:**
- Lubrication oil monitoring
- Industrial oil flow monitoring
- Process control

**Measuring Range:**
- Oil SR-1...6:
  - min 0.1–1 L/min, max 0.6–6 L/min
- SR-10...120:
  - min 1–10 L/min, max 10–120 L/min
- Other ranges also available

**Body:**
- Aluminium

**Connections:**
- SR-1...6: BSP/NPT ½”
- SR-10..120: BSP/NPT 1” or 1 ½” depending on range

**Options:**
Please contact us for available options.

**SR-10**

Height 160 mm

**SR-2.5**

Height 73 mm

**SRx-x MULTI-CHANNEL MODEL**

**Key Features:**
- 4, 6 or 8 channels
- Large viscosity range 30—1000 cSt
- Independent of oil viscosity changes
- Pulse outputs
- Sturdy construction
- Flow adjusting valves
- Service valves
- Maximum pressure 10 bar (20 bar on request)
- Maximum temperature 80°C

**Applications:**
- Lubrication oil monitoring
- Industrial oil flow monitoring
- Process control

**Measuring Range:**
- Oil min 0.1–1 L/min, max 0.6–6 L/min
- Other ranges also available

**Body:**
- Aluminium

**Connections:**
- BSP or NPT 1/2” outlets

**Options:**
Please contact us for available options.

**2950**

**6210**

**Key Features:**
- Large viscosity range 30—1000 cSt
- Independent of oil viscosity changes
- Pulse output
- No flow adjusting valve
- Maximum pressure 10 bar (20 bar on request)
- Maximum temperature 80°C

**Applications:**
- Lubrication oil monitoring
- Industrial oil flow monitoring
- Process control

**Measuring Range:**
- Oil min 0.1–1 L/min, max 10–100 L/min
- Other ranges also available

**Body:**
- Aluminium

**Connections:**
- BSP or NPT 1/4”, 3/4”, 1”, 1 ½” depending on range

**Options:**
Please contact us for available options.

**Height 129 mm**

**Height 109 mm max**

**Height 160 mm**

**Height 73 mm**

**Height 2950 mm**

**Height 6210 mm**

**Ø108 mm max**

**Ø108 mm max**
OVAL GEAR FLOW METERS AND DISPLAYS

**SRO**

**Key Features:**
- Large viscosity range 30—1000 cSt
- Independent of viscosity and temperature changes
- Pulse output
- Accuracy ±0.5% of reading
- Maximum pressure 10 bar
- Maximum temperature 80°C

**Applications:**
- Lubrication oil flow monitoring
- Industrial flow monitoring
- Process control

**Measuring Range:**
- Oil
  - min 10–120 L/min
  - max 20–200 L/min

**Body:**
- Aluminium

**Connections:**
- BSP or NPT 1/4”, 1/2”, 1”

**Options:**
- Alternative sensors

---

**SRP**

**Key Features:**
- Maximum pressure of up to 600 bar depending on model
- Independent of viscosity and temperature changes
- Pulse output
- For low and high viscosity liquids
- Accuracy ±0.5% of reading, viscosity ≥50 cSt
- Maximum temperature 75°C with Namur sensor, 100°C with PNP sensor

**Applications:**
- Hydraulic applications
- Industrial flow monitoring
- Process control and batching

**Measuring Range:**
- Flow ranges from 0.25 L/min to 150 L/min depending on viscosity

**Body:**
- Stainless steel AISI 316

**Connections:**
- BSP or NPT 1/4”, 1/2”, 1” depending on range

**Options:**
- Alternative sensors
- Stainless steel or brass gears

---

**OVAL D MEASURING STATION**

**Key Features:**
- Stainless steel housing
- Clear display
- Communication with upper level systems
- Alarm relays: high flow, low flow, very low flow and one programmable
- Alarm inhibits
- Alarm groups

**Applications:**
- Lubrication oil monitoring
- Industrial oil flow monitoring
- Process control

**Technical Specifications:**
- Maximum 64 points (96 points on special request)
- Modbus RTU (RS485) communication
- Kytola coil or NAMUR sensor inputs

**Housing:**
- Stainless steel, IP65

**Supply Voltage:**
- 24 VDC/0.6 A or 110–240 VAC / 50–60 Hz

---

**OVAL MIN-E LOCAL DISPLAY**

**Key Features:**
- Clear scalable display
- Instant/cumulative flow measurement
- Multiple flow units
- Multiple flow alarm levels
- Visible alarm indication
- Multi-level configuration
- Pulse input
- Alarm relay
- mA outputs

**Applications:**
- Lubrication oil flow monitoring
- Industrial flow monitoring
- Process control

**Technical Specifications:**
- Single or multi-channel models
- Kytola coil, NAMUR or NPN sensor inputs
- Modbus RTU (RS485) communication

**Housing:**
- Anodized aluminium, IP65

**Supply Voltage:**
- 24 VDC

---

**Ø135 mm**

---

---

---
OIL LUBRICATION FLOW MONITORING SYSTEMS

INSTALLATION PANELS

Key Features:
• Sturdy stainless steel construction
• Withstands the harsh conditions in process industry
• With or without plexiglass door
• Mounting on hood wall or floor mounting stand
• OVAL D station and SR meters assembled
• Connections, shut-off valves, flushing etc., according to customer’s requirements

Applications:
• Pulp and paper machines
• Tissue machines
• Steel mills

SR OVAL GEAR METERS

Key Features:
• Single or multi-channel (4, 6, 8) model
• Large viscosity range 30—1000 cSt
• Independent of oil viscosity changes
• Pulse outputs
• Sturdy construction
• Flow adjusting valves
• Maximum pressure 10 bar (20 bar on request)
• Maximum temperature 80°C

Applications:
• Lubrication oil monitoring
• Industrial oil flow monitoring
• Process control

Measuring Range:
• Min 0.1—1 L/min, max 10—120 L/min

OVAL D MEASURING STATION

Key Features:
• Stainless steel housing
• Communication with upper level systems
• Alarm relays: high flow, low flow, very low flow and one programmable
• Alarm inhibits and groups

Applications:
• Lubrication oil monitoring
• Industrial oil flow monitoring
• Process control

Technical Specifications:
• Maximum 64 points (96 points on special request)
• Modbus RTU (RS485) communication
• Kytola coil or NAMUR sensor inputs

OVAL MIN-E LOCAL DISPLAY

Key Features:
• Clear scalable display
• Instant/cumulative flow measurement
• Multiple flow units
• Multiple flow alarm levels
• Visible alarm indication
• Multi-level configuration
• Pulse input
• Alarm relay
• mA outputs

Applications:
• Lubrication oil flow monitoring
• Industrial flow monitoring
• Process control

Technical Specifications:
• Single or multi-channel models
• Kytola coil, NAMUR or NPN sensor inputs
• Modbus RTU (RS485) communication

Height 100 mm

SRV UPGRADE BLOCK

Key Features:
• Optimized for upgrading the existing Model V variable area flow meter to oval gear meters
• Single or multi-channel (max 7) models
• Independent of oil viscosity changes
• Oval Min-E Local Display can be mounted on the meter block or as a separate unit

Applications:
• Lubrication oil flow monitoring
• Industrial flow monitoring
• Process control

Height ~255 mm

KVM CONTROL ROOM SOFTWARE

Key Features:
• Easy on-site start-up and commissioning
• User friendly operation
• Reliable operation and runtime control

Applications:
• Lubrication oil monitoring
• Industrial oil flow monitoring
• Process control
### OIL LUBRICATION FLOW MONITORING SYSTEMS

#### FLOW METER VExA

**Key Features:**
- Sturdy, industrial flow meter with protected flow tubes
- Flow adjustment valves on outlet
- Inductive low flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C

**Applications:**
- Lubrication oil flow monitoring in pulp & paper, steel and other industries

**Measuring Range:**
- Oil 220 cSt 100% flow min 0.13 L/min, max 7.2 L/min
- Oil 125 cSt 100% flow min 0.23 L/min, max 12.5 L/min

**Flow Tubes:**
- Grilamid (PA-12)

**Connections:**
- Single tube: BSP or NPT 1/2”
- Multi-tube: BSP/NPT 3/4” common inlet, BSP/NPT 1/2” separate outlets

**Options:**
Please contact us for available options.

---

#### FLOW METER K

**Key Features:**
- Sturdy, industrial flow meter with protected flow tube
- Flow adjusting valve on outlet
- Inductive low and/or high flow alarm (option)
- Maximum pressure 30 bar
- Maximum temperature 80°C (120°C)

**Applications:**
- Lubrication oil flow monitoring in pulp & paper, steel and other industries

**Measuring Range:**
- Oil 220 cSt 100% flow min 9 L/min, max 27.5 L/min
- Oil 125 cSt 100% flow min 14 L/min, max 40 L/min

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- BSP or NPT 1”

**Options:**
Please contact us for available options.

---

#### FLOW METER TL

**Key Features:**
- Sturdy, industrial flow meter
- Protected flow tube
- Inductive low and/or high flow alarm (option)
- Maximum pressure 20 bar
- Maximum temperature 80°C (120°C)

**Applications:**
- Lubrication oil flow monitoring in pulp & paper, steel and other industries

**Measuring Range:**
- Oil 220 cSt 100% flow min 26.8 L/min, max 130 L/min
- Oil 125 cSt 100% flow min 33.5 L/min, max 190 L/min

**Flow Tube:**
- Grilamid (PA-12) or PES

**Connections:**
- BSP or NPT 2” (DN 50 or ANSI 2” flanges)

**Options:**
Please contact us for available options.

---

#### ALARM AMPLIFIER NK

**Key Features:**
- Connections for 1—30 NAMUR sensors dependent upon model
- Function indicator LEDs in front panel
- Potential free change-over switch
- Common group alarm, if one or more sensor alarms

**Applications:**
- Indication of low flow alarm in oil lubrication systems
- Indication of low/high flow alarm, in sealing and cooling water systems
- Gas flow alarm
- Typically used with models V, K and TL

**Supply:**
- 24 VDC, 110 VAC or 220 VAC, dependent upon model

**Output:**
- One change-over switch, 230 VAC, 5 A

**Inputs:**
- Inductive proximity sensors according to NAMUR norm (DIN 19234)
**OIL ANALYZERS**

**OILAN WATER IN OIL ANALYZER**

**Key Features:**
- On-line measurement
- Measures the absolute water content in oil (ppm)
- For mineral oils as well as some synthetic oils
- Serial communication (Modbus)
- 4—20 mA output
- Alarm output
- Monitoring and calibration with Kytola software

**Applications:**
- Paper machine oil lubrication systems
- Ship propulsion systems
- Oil rig propulsion systems
- Steel mills
- Mining

**Technical Specifications:**
- Measuring range 0—5,000 ppm (0—20,000 ppm on request)
- Accuracy ±30 ppm within the calibrated measuring range and under calibration conditions
- Oil viscosity 10—680 cSt
- Ambient temperature +5°C...+60°C
- Oil sample temperature +5°C...+60°C
- Oil sample pressure 1—10 bar

**Housing:**
- Aluminium

**Connection:**
- BSP or NPS 1/4” female adapters

**OILCOL OIL COLOR ANALYZER**

**Key Features:**
- Online oil color analyzer
- ASTM D1500 color scale
- Online measurement with a response time of 4 s
- Sturdy construction
- Serial communication (Modbus)
- 4—20 mA output
- Monitoring with Kytola software

**Applications:**
- Wide variety of liquid petroleum products:
  - Lubricating oils
  - Heating oils
  - Diesel fuel oils
  - Mineral insulating oils
  - Hydraulic oils

**Technical Specifications:**
- Measuring range ASTM D1500 scale from 0.5 to 8.0
- Accuracy ±0.3 (as the ASTM scale step is 0.5)
- Oil viscosity 0—500 cSt
- Oil and ambient temperature −20°C...+60°C
  (−20°C...+70°C with air cooling option)
- Maximum pressure 20 bar

**Housing:**
- Aluminium

**Connection:**
- 10 mm or 3/8” compression fitting
DPA

**Key Features:**
- Clear and easy to read
- Red metering liquid provides good contrast
- Robust construction
- Metering liquid does not blow out during momentary overloads
- Due to the construction metering liquid does not evaporate during overloads

**Applications:**
- Air conditioning strainers
- Blowers
- Dust filters
- Pressurized enclosures
- Draught measurement in furnaces
- Laboratories

**Measuring Range:**
- Min 0–100 Pa, max 0–500 Pa

**Body:**
- Acrylic (PMMA)

**Connection:**
- For 4–6 mm inside diameter hose

DPP

**Key Features:**
- Clear and easy to read
- Red metering liquid provides good contrast
- Robust construction

**Applications:**
- Air conditioning strainers
- Blowers
- Dust filters
- Pressurized enclosures
- Laboratories
- Flow rate and velocity measurement
- Annealing furnaces

**Measuring Range:**
- Min 0–1 kPa, max 0–5 kPa

**Body:**
- Acrylic (PMMA)

**Connection:**
- For 4–6 mm inside diameter hose

CHECK VALVES

**2680A / 2680B**

**Key Features:**
- Robust stainless steel construction
- Protects measurement equipment
- Closes if flow stops or reverses
- Can be mounted in any position
- Easily removed
- Withstands corrosive media

**Applications:**
- Liquid feed lines
- Gas feed lines
- Pressurized sealing water systems

**Opening Pressure:**
- 0.15—0.25 bar

**Body:**
- AISI 316

**Connection:**
- BSP 1/4”—BSP 1”
  
**2680A:** male inlet, female outlet
**2680B:** female inlet and outlet

**CV**

**Key Features:**
- Robust stainless steel construction
- Protects measurement equipment
- Closes if flow stops or reverses
- Can be mounted in any position
- Easily removed
- Withstands corrosive media

**Applications:**
- Liquid feed lines
- Gas feed lines
- Pressurized sealing liquid water systems

**Opening Pressure:**
- 0.25 bar

**Body:**
- AISI 316

**Connection:**
- Inlet for 10 mm hose, outlet BSP 1/4”–1/2”
  
**2680A:** male inlet, female outlet
**2680B:** female inlet and outlet

(Inlet for 3/8” hose, outlet NPT 1/4”–1/2”)
**Start-up Assistance**

Kytola offers a comprehensive commissioning and start-up package with in-depth training to operators.

Kytola assistance ensures a smooth start-up and efficient use of the Oval Flow lubrication monitoring system from the very first moment.

**Maintenance and Service Agreement**

Kytola is dedicated to contribute to the maximum runnability of its customer’s machinery.

By signing a Maintenance and Service agreement with Kytola, one ensures best possible operation of their Kytola products and systems.