



# **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 headquarters, 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.

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### Quality Products from a **Trusted Manufacturer**

Variable Area Flow Meters

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### **SINGLE TUBE**

Α

### **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.

### C

### **Kev 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 3/4" (Adapters available for NPT)

### **Options:**

Please contact us for available options.

D

Height 130 mm

### **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 7.5–40 L/min, max 10–100 L/min
- Air +20°C / 1.013 bar (abs) min 200–1200 NL/min, max 500–2500 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.



Height ~94 mm

Height

BA

165 mm

### **Key Features:**

- · High quality acrylic flow meter
- Connections for plastic hose
- Needle valve
- Maximum pressure 10 bar
- Maximum temperature 75°C

### **Applications:**

- Gas flows for analyzers
- Air purging for enclosures
- Gas purging for differential pressure measurements

### **Measuring Range:**

 Air +20°C / 1.013 bar (abs) min 0.2–1.4 NL/min, max 0.5–7.5 NL/min

### **Body:**

• Acrylic (PMMA)

### **Connections:**

 Rapid fittings for outside diameter 6 mm and inner diameter 4 mm hose

### Options

Please contact us for available options.

100 = 50 = 10.

Height 210 mm

### Ε



Height 128 mm

### **Kev 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:**

Heiaht

128 mm

Acrylic (PMMA)

### **Connections:**

• BSP 1/4" (Adapters available for NPT)

### **Options:**

Please contact us for available options.

### **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:**

PÓM or PVDF

### **Connections:**

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

### **Options**

Please contact us for available options.

Height 132 mm





### 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



Height 282 mm max

### **Kev 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



Height 210 mm

### **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 11/4" or 50 mm socket type connection

Height

395 mm

### KL



Height 310 mm

### **Kev 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.

### KD



Height 310 mm

### **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"

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.

### **KLFH**

Height 310 mm



Height 406 mm

### **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:**

- 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



### **SINGLE TUBE**

### TL



Height 373 mm

### **Kev 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.

### **TLFH**



Height 317 mm

### **Kev 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.

### TTFH



Height 381 mm

### **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 75–600 L/min, max 100–1000 L/min

### Flow Tube:

Acrylic (PMMA)

### **Connections:**

DN 80 flanges

### **Options**

### **VL**



Height 202 mm

### **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**



Height ~246 mm max

**VLFH** 

### **Kev 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
- 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

Height

218 mm

Please contact us for available options.

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Height 320 mm

### 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:**



### **ExK**



### **Kev 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.

### **VEx**



### **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**

### **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

### Ontions:

Please contact us for available options.

# MP WITH VALVE



Height 140 mm



### **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**



### **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





Height ~300 mm

3631

### **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

Height 132 mm

### **Key Features:**

- Provides constant flow of liquids or gases regardless of pressure variations
- 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.



**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:**

• AlSI 316 or aluminium

### **Connections:**

BSP or NPT 1/4"

### **Options:**

Please contact us for available options.

12

Height 132 mm

# **SEAL WATER FLOW METERS**

### **SLM**



### **Key Features:**

- Solid, compact construction
- Clog resistant flow adjusting 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



Height ~272 mm

### **Key Features:**

- Solid, compact construction
- Clog resistant flow adjusting 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:**



### OVAL GEAR FLOW METERS AND DISPLAYS

### **SR SINGLE**

### SR-2.5



Height 73 mm

### SR-10



Height 160 mm

### **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.

### 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:**



Height

6210

Please contact us for available options.

### 2950

### **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



Please contact us for available options.



Ø108 mm max

### **Key Features:**

- Large viscosity range 30—1000 cSt
- Independent of viscosity changes
- Chemical resistant materials
- Pulse output
- No flow adjusting valve
- Maximum pressure 10 bar
- Maximum temperature 80°C

### **Applications:**

- Polymer injection
- Flocculent flow control
- Viscous chemical dosage

### **Measuring Range:**

- Min 0.1-1 L/min, max 3-30 L/min
- Other ranges also available

### Body:

PVC or PVDF

### **Connections:**

 BSP 1/4" or 3/4" depending on range (Adapters available for NPT)



### Options:

Please contact us for available options.

Height 109 mm

max

### OVAL GEAR FLOW METERS AND DISPLAYS

### **SRO**



Ø135 mm

### **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 11/2"

### **Options:**

Alternative sensors

### **SRP**



Ø170 mm max

### **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 D2 MEASURING STATION

### **Key Features:**

- Painted or 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

### Housing:

Painted or stainless steel, IP65

### **Supply Voltage:**

Height

250 mm

• 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:**

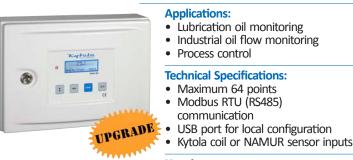
- Single or multi-channel models
- Kytola coil, NAMUR or NPN sensor
- Modbus RTU (RS485) communication

### **Housing:**

Painted aluminium, IP65

### **Supply Voltage:**

• 24 VDC





Height 100 mm



### OIL LUBRICATION FLOW MONITORING SYSTEMS

### **INSTALLATION PANELS**



### **Kev 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 D2 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 flow monitoring
- Industrial oil flow monitoring
- Process control



**OVAL MIN-E LOCAL DISPLAY** 

### **Measuring Range:**

• Min 0.1-1 L/min, max 10-120 L/min

### **OVAL D2 MEASURING STATION**

housing

### **Kev Features:**

- · Painted or 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 flow monitoring
- · Industrial oil flow monitoring
- Process control

### **Technical Specifications:**

- Maximum 64 points
- Modbus RTU (RS485) communication
- USB port for local configuration
- Kytola coil or NAMUR sensor

Height

### **Kev 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



KVM CONTROL ROOM SOFTWARE

### **Applications:**

- Lubrication oil flow monitoring
- Industrial oil flow monitoring
- Process control

### **Technical Specifications:**

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

### SRV UPGRADE BLOCK

Height

250 mm



Height ~255 mm

### **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 oil flow monitoring
- Process control



### **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 VEX-A**

### **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

Height ~255 mm

### **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**

Height

310 mm

### **Key Features:**

- Connections for 1—30 NAMUR sensors dependent upon model
- Function indicator LED's 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)



Height 373 mm



Height 180 mm max



### **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



Height

### **DIFFERENTIAL PRESSURE METERS**

### **DPA**



Height 137 mm

### **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

Height 317-840 mm

### **CHECK VALVES**

### 2680A / 2680B



Height 46-70 mm

2680B



Height 55 – 75 mm

### **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

# CVR

**CV** 

Height 59-81 mm

### **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 systems

### **Opening Pressure:**

• 0.25 bar

### Body:

• AISI 316

### Connection:

• Inlet for 10 mm hose, outlet BSP 1/4"-1/2" (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.





