

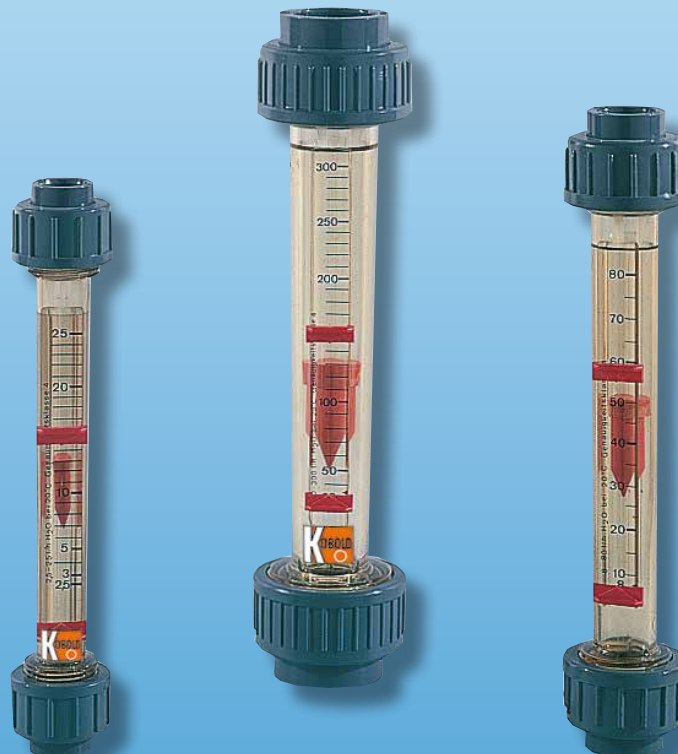
Plastic Flowmeters and Switches

for Liquids and Gases



measuring
•
monitoring
•
analyzing

KSK



- Accuracy: $\pm 4\%$ of Full Scale
- Shock and Corrosion Proof
- Maximum Pressure: 145 PSIG
- Polysulfone Versions have Excellent Resistance to Acids and Alkaline Solutions
- Compact Design



KOBOLD companies worldwide:

ARGENTINA, AUSTRALIA, AUSTRIA, BELGIUM, BULGARIA, CANADA, CHILE, CHINA, COLOMBIA, CZECH REPUBLIC, EGYPT, FRANCE, GERMANY, HUNGARY, INDIA, INDONESIA, ITALY, MALAYSIA, MEXICO, NETHERLANDS, PERU, POLAND, REPUBLIC OF KOREA, ROMANIA, SINGAPORE, SPAIN, SWITZERLAND, TAIWAN, THAILAND, TUNISIA, TURKEY, UNITED KINGDOM, USA, VIETNAM

KOBOLD Instruments, Inc.
1801 Parkway View Drive
Pittsburgh, PA 15205
☎ Main Office:
1.412.788.2830
1.412.788.4890
✉ info@koboldusa.com
www.koboldusa.com



Description

The KOBOLD KSK plastic flowmeter/switch operates on the basis of the well known variable-area principle. The media flows upward through a conical measuring tube. The float is lifted by the flowing media and indicates the instantaneous flow rate on the scale attached to the flowmeter. The KSK series is all-plastic, with bodies made of polyamide or polysulfone to handle aggressive media.

For the control of flow setpoints, a bistable switch can be provided for the instrument. Reed contacts or transistor switches are available and can be used to monitor and alarm on an upset flow condition. The transistor switch has an LED on the contact housing to indicate switching status.

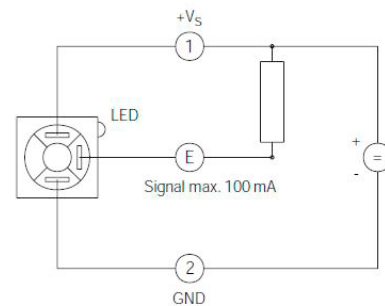
Measuring scales are available for water or air. Compressed air scales are available in SCFM, calibrated for direct readings at operating pressures from 0 to 145 PSIG. The compressed air scale table on page three shows the available ranges and calibration pressures for each meter size.



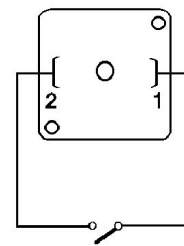
Specifications

- Accuracy:** ±4% Full Scale
- Flow Media:** Air or Water and Other Fluids
- Mounting:** Vertical, Flow Up
- Max. Media Temperature**
 - Polyamide:** 140 °F
 - Polysulfone:** 140 °F w/ PVC Fittings
180 °F w/ Brass & SS Fittings
- Max. Pressure:** 145 PSIG
- Materials**
 - Measuring Tube:** Polyamide, Polysulfone
 - Float:** PVDF
 - O-Rings:** EPDM
 - Connection with Capnut:** Per Ordering Code
- Switch Details**
 - NPN Transistor:** Hall-Sensor, Bistable
NPN Open Collector
 - Operating Voltage:** 9-24 VDC
 - Operating Current:** Max. 100 mA
 - Ambient Temp:** 130 °F Max.
 - Hysteresis:** <0.24"
 - Output Signal:** LED Lights w/ Flow
Above Setpoint
 - Reed Switch:** SPST N/O or N/C,
Based on Order Code
 - Electrical Ratings:** Max. 130 VAC
10 W / 10 VA, 0.5A
 - Ambient Temp:** Max. 130°F
 - Protection:** IP65

Transistor Switch



Reed Switch





Compressed Air Scale Ranges @ Specified Outlet Pressure

(NOTE: Air Units Available Only with Polysulfone (KSK-2...) Measuring Tube)

| Model | SCFM 0 PSIG | SCFM 15 PSIG | SCFM 30 PSIG | SCFM 45 PSIG | SCFM 60 PSIG | SCFM 75 PSIG | SCFM 85 PSIG | SCFM 100 PSIG | SCFM 115 PSIG | SCFM 130 PSIG | SCFM 145 PSIG |
|----------|----------------|-----------------|-----------------|-----------------|-----------------|-----------------|-----------------|------------------|------------------|------------------|------------------|
| KSK-..15 | 0.06...0.27 | 0.12...0.35 | 0.12...0.44 | 0.12...0.5 | 0.18...0.6 | 0.18...0.65 | 0.18...0.7 | 0.24...0.77 | 0.24...0.8 | 0.24...0.83 | 0.24...0.9 |
| KSK-..25 | 0.12...0.65 | 0.15...0.9 | 0.18...1.1 | 0.18...1.3 | 0.24...1.5 | 0.30...1.6 | 0.30...1.7 | 0.30...1.8 | 0.35...2.0 | 0.35...2.1 | 0.60...2.1 |
| KSK-..50 | 0.24...1.2 | 0.30...1.7 | 0.35...2.0 | 0.40...2.4 | 0.47...2.7 | 0.53...3.0 | 0.60...3.2 | 0.60...3.4 | 0.60...3.5 | 0.75...3.8 | 0.90...4.1 |
| KSK-..80 | 0.30...1.8 | 0.40...2.5 | 0.40...3.3 | 0.60...3.8 | 0.60...3.9 | 0.60...4.0 | 1.0...5.0 | 0.90...5.3 | 0.90...5.6 | 0.90...6.0 | 0.90...6.2 |
| KSK-100 | 0.40...2.1 | 0.60...3.0 | 0.70...3.5 | 0.90...4.1 | 1.0...4.7 | 1.2...5.3 | 1.2...5.6 | 1.2...6.0 | 1.5...6.2 | 1.5...6.5 | 1.5...7.0 |
| KSK-150 | 0.60...3.5 | 0.90...4.4 | 1.2...5.3 | 1.2...7.0 | 1.5...7.7 | 1.5...8.3 | 1.8...8.9 | 1.8...9.4 | 1.8...10.0 | 2.1...10.1 | 2.1...11.5 |
| KSK-200 | 0.90...4.4 | 1.5...6.0 | 1.8...7.7 | 2.1...8.6 | 2.4...10.0 | 2.7...11.2 | 3.0...11.8 | 3.0...13.3 | 3.5...13.6 | 3.5...14.2 | 3.5...14.8 |
| KSK-300 | 0.60...6.0 | 0.90...8.3 | 1.2...10.0 | 1.5...11.8 | 1.8...13.6 | 1.8...14.2 | 2.1...14.8 | 2.1...16.2 | 2.1...17.7 | 2.4...18.3 | 2.4...18.9 |
| KSK-500 | 1.2...10.0 | 1.8...14.2 | 2.4...16.5 | 2.4...19.0 | 3.0...21.2 | 3.0...23.6 | 3.5...24.8 | 3.5...26.6 | 3.5...28.3 | 4.1...30.0 | 4.1...33.0 |
| KSK-999 | 3.5...18.3 | 4.7...26.0 | 6.0...32.0 | 7.1...36.6 | 7.1...41.0 | 8.9...44.3 | 8.9...47.2 | 8.9...53.1 | 8.9...56.0 | 8.9...59.0 | 11.8...62.0 |

Order Numbers for Standard Types

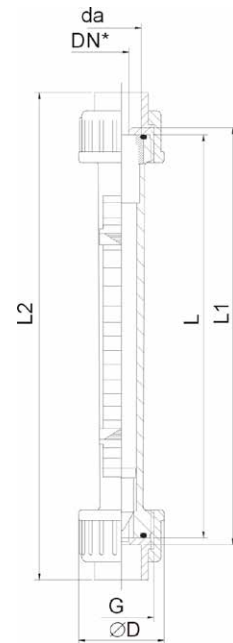
| Water Range (GPM) | Max. Pressure Drop (PSI) | Material | | Measuring Scale | Fittings | Switch Options | |
|----------------------|--------------------------------|------------|-------------|--|---|--|--|
| | | Polyamide | Polysulfone | | | | |
| 0.006...0.05 | 0.07 | KSK-1015.. | KSK-2015.. | Water Scale | For KSK-x015 to x100 ..K10.. = PVC, 3/8" Glue Socket ..T10.. = PVC, 3/8" NPT Female | ..00 = Without ..S0 = 1 N/O Reed ..SS = 2 N/O Reed ..C0 = 1 N/C Reed ..CC = 2 N/C Reed ..E0 = 1 NPN ..EE = 2 NPN | |
| 0.01...0.10 | 0.07 | KSK-1025.. | KSK-2025.. | | | | |
| 0.02...0.20 | 0.07 | KSK-1050.. | KSK-2050.. | | | | |
| 0.04...0.44 | 0.07 | KSK-1100.. | KSK-2100.. | | | | |
| | | | | Air Scale (See Table) | For KSK-x080 to x200 ..K15.. = PVC 1/2" Glue Socket ..T15.. = PVC 1/2" NPT Female ..IN1.. = Brass, 1/2" NPT Female ..AN1.. = Brass, 1/2" NPT Male ..AN3.. = 316 SS, 3/4" NPT Male ..IN2.. = 316 SS, 1/2" NPT Female ..AN2.. = 316 SS, 1/2" NPT Male | | |
| 0.035...0.35 | 0.07 | KSK-1080.. | KSK-2080.. | | | | |
| 0.06...0.66 | 0.07 | KSK-1150.. | KSK-2150.. | | | | |
| 0.08...0.8 | 0.07 | KSK-1200.. | KSK-2200.. | | | | |
| | | | | | | | |
| 0.13...1.3 | 0.12 | KSK-1300.. | KSK-2300.. | | | | |
| 0.22...2.2 | 0.12 | KSK-1500.. | KSK-2500.. | | | | |
| 0.44...4.4 | 0.12 | KSK-1999.. | KSK-2999.. | For KSK-x300 to x999 ..K25.. = PVC, 1" Glue Socket ..T25.. = PVC, 1" NPT Female | | | |
| | | | | | | | |



Dimensions

Dimensions with PVC Glue Socket, Female NPT

| Model | DN | da | L | L1 | L2 |
|------------|------|--------|-----|-----|-----|
| KSK-.015.. | 3/8" | 1/2" | 6.5 | 6.7 | 7.8 |
| KSK-.025.. | 3/8" | 1/2" | 6.5 | 6.7 | 7.8 |
| KSK-.050.. | 3/8" | 1/2" | 6.5 | 6.7 | 7.8 |
| KSK-.080.. | 1/2" | 3/4" | 7.3 | 7.5 | 8.8 |
| KSK-.100.. | 3/8" | 1/2" | 6.5 | 6.7 | 6.5 |
| KSK-.150.. | 1/2" | 3/4" | 7.3 | 7.5 | 8.8 |
| KSK-.200.. | 1/2" | 3/4" | 7.3 | 7.5 | 8.8 |
| KSK-.300.. | 1" | 1-1/4" | 7.9 | 8.1 | 9.8 |
| KSK-.500.. | 1" | 1-1/4" | 7.9 | 8.1 | 9.8 |
| KSK-.999.. | 1" | 1-1/4" | 7.9 | 8.1 | 9.8 |



Dimensions with Special Thread Fittings in Brass or Stainless Steel

| Model | L | L2 | Female | Male | AF |
|------------|-----|-----|----------|------------------|-------|
| KSK-.015.. | 6.5 | - | - | - | - |
| KSK-.025.. | 6.5 | - | - | - | - |
| KSK-.050.. | 6.5 | - | - | - | - |
| KSK-.080.. | 7.3 | 9.6 | 1/2" NPT | 1/2" or 3/4" NPT | 36 mm |
| KSK-.100.. | 6.5 | - | - | - | - |
| KSK-.150.. | 7.3 | 9.6 | 1/2" NPT | 1/2" or 3/4" NPT | 36 mm |
| KSK-.200.. | 7.3 | 9.6 | 1/2" NPT | 1/2" or 3/4" NPT | 36 mm |
| KSK-.300.. | 7.9 | - | - | - | - |
| KSK-.500.. | 7.9 | - | - | - | - |
| KSK-.999.. | 7.9 | - | - | - | - |

