



RF Capacitance Switch KCAP400™

With Dual Set Point and Pump Control

FEATURES

- Liquids and Bulk Solids
- Integral and Remote Electronics Available
- Easy Set Up Via External Magnet or Pushbuttons
- Housing with Glass Viewing Cover
- Wide Variety of 2-Element Sensing Probes Available (450°F / 3000 psig)
- Field Selectable Modes of Operation:
 - Single Set Point (Horizontal or Vertical Installations)
 - Dual Set Point (Vertical Installations Only)
 - Pump Control (Vertical Installations Only)
- Element Sensitivity Down to 1.5 pF

OPTIONS

- 316L SS enclosure
- External "Alarm" Indicating Lamp
- Custom Insertion Lengths to 1800 in / 45720 mm
- Industry Standard Bulk Solids Mounting Plate
- Process Connections: 3/4"NPT, 1 1/4"NPT, 1 1/2"NPT and Custom Flanges

APPLICATIONS

BULK SOLIDS APPLICATIONS

- High or Low Level Alarm
- Plugged Chute Detection
- Fly Ash Hopper Level
- Pellets, Granules, Powders, Chips & Flakes

LIQUID APPLICATIONS

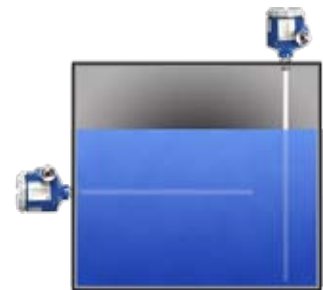
- High or Low Level Alarm
- Interface
- Slurries
- Flow / No Flow
- Conductive Products
- Non-Conductive Products
- Organic
- Inorganic



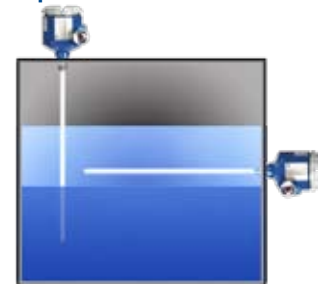
KCAP400 with Teflon Sheathed 'R' Probe and Optional External "Alarm" Indicating Lamp

SPECIFICATIONS

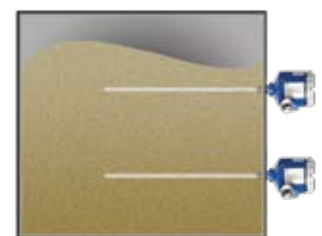
Environmental	
Housing Type	Explosion Proof, Powder Coated Cast Aluminum Standard
Electronics Temperature	-40° to 158°F / -40° to 70°C
Process Temperature	450°F (232°C) Maximum
Process Pressure	3000 psig (207 bar) Maximum
Remote Mounting	Max. length of 200 ft. from sensing probe to the remote electronics
Approvals	Factory Mutual Research Corp. Explosion Proof with Intrinsically Safe Sensor XP-IS / I, II, III / 1 / ABCDEFG T6
Electrical	
Input Power	95-130 VAC, 50-60Hz, 2 Watts; 180-260 VAC, 50-60Hz; 24 VDC +/- 5%
Relay Contact Rating	2x SPDT Resistive: 8 Amp, 250 VAC; 8 Amp, 30VDC. Inductive: 1/5 HP 125, 250 VAC.
Sensitivity	With an initial load of 30 pF, an increase of 1.5 pF can be detected
Static Protection	Peak Surge Current: 800 Amps; Clamp Voltage: 75 Volts
Cable Entry	2x 3/4" NPT (Single Compartment Housing) 1x 3/4" NPT (Dual Compartment Housing)



Liquid and Slurries



Interface Detection



Powders and Granulars

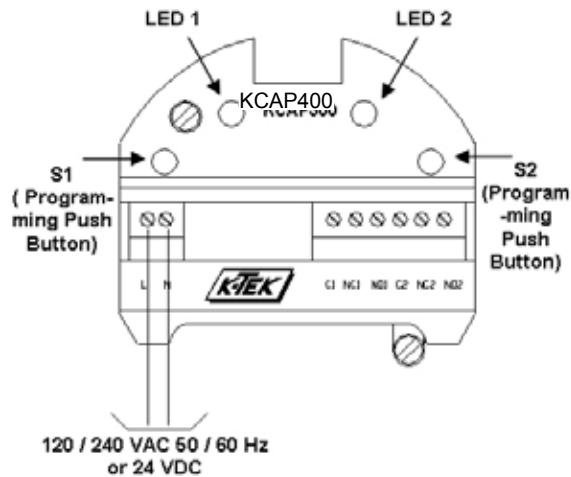
ORDERING INFORMATION

KCAP400/a/b/c/d/ef/g:

/a	Operating Power
1	24 VDC
2	120 VAC
3	240 VAC
/b	Housing
A1W	Single Compartment Powder Coated Aluminum Housing with Glass Viewing Cover
A2W	Dual Compartment Powder Coated Aluminum Housing with Glass Viewing Cover
S2W	Dual Compartment Stainless Steel Housing with Glass Viewing Cover
/c	Process Connection
0750	3/4" NPT (standard) ¹
1250	1 1/4" NPT (bushing will be supplied) ¹
P1	Single Probe Process Connection (SLG-0006-1 Table 1B / 1C) Standard ²
P2	Dual Probe Process Connection (SLG-0006-1 Table 1B / 1C) ²
FL	Flange Shipped Loose (Specify from Flange Chart SLG-0001-1)
FLD	Dual Sensor Integrally Mounted on Flange (4" minimum) with Primary Probe ²
WP	Welded Process Connection (Specify from Flange Chart SLG-0001-1)
WPD	Dual Sensor Integrally Mounted on Flange (4" minimum) with Primary Probe ²
Note:	¹ Applies only to KCAP™ 3-Element Probes ² Applies only to KCAP™ 2-Element Probes
/d	Probe Type
2	Standard (Reference SLG-0006-1 Table 1B)
xxxxx	Probe Type Code (1 to 5 digits)
/e	Approvals
X	None
FMX	Factory Mutual Research Corp. Explosion Proof with Intrinsically Safe Sensor
/f	Options
X	None
Rxxx	Remote Mount. Specify Length in Feet or Meters (Max. 200 Feet / 70 Meters)
RT	Rigid Tip Extension (Vertical / Liquid Installations Only)
HT6	316SS High Temperature Extension (>250°F / 121°C) (general purpose only - NOT approved by FM)
PE	316SS High Temperature Extension (>250°F / 121°C) (general purpose only - NOT approved by FM)
L2	120 VAC - External "Alarm Only" Indicating Lamp (general purpose only - NOT approved by FM)
L3	240 VAC - External "Alarm Only" Indicating Lamp (general purpose only - NOT approved by FM)
/g	Insertion Length
SL	Insert standard length as specified in "d" above. Bare, stainless probes can be shortened in the field. Subject to probe sensitivity.
L	Insert custom length from face of coupler in inches or millimeters. (Only Applicable with the KCAP™ 2-Element Probes)
Available Accessories:	
KCAP/MP	304SS "bulk solids" mounting plate with 3/4" NPT half coupling (for paddle switch replacement)
M20	M20 Connection
M20-SS	M20 316SS Female Electrical Connection



ELECTRICAL CONNECTION DIAGRAM



GENERAL DIMENSIONS

