Level switch
Model 5716

Applications

- Powders
- Pellets and chips
- Granules
- Ash handling
- Sand

Special features

- Micro processor control
- One press calibration
- Robust construction
- High or low alarm selection
- Delay time selection
- LED status indication

Level switch, model 5716

Description

Level switch model 5716 is suitable for detecting high or low level of bulk solids, in storage applications. The level detection is done based on RF capacitance principle using micro processor based measuring circuit.

The sensing probe unit is built with two elements of positive and negative electrode as a single rigid rod construction. The separtion of the electrodes are done by using either PTFE or ceramic material depending on the temperature of the media.

The negative element of probe called GUARD is always in contact with vessel wall through process connection. The tip of the probe acts as the sensing element.

Whenever the process media comes into contact with the sensing part, capacitance value changes which will lead to actuation of relay.

The probe part will have pulse amplifier circuit on the probe head which is connected to the remote control circuit through 2-core cable.

Both the circuits are housed in a IP65 compliant weatherproof aluminium enclosure.

Specifications

Basic information	
Switch enclosue	Aluminium pressure die cast weatherproof
Working principle	RF capacitance
Construction	Remote type
Environmental	■ Ambient: 10 ... 60°C ■ Humidity: 95% RH maximum

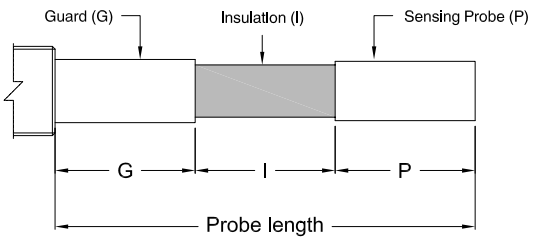
Probe unit	
Power	From control unit through 2C×1.5 sq. mm shielded interconnecting cable of 25 meters maximum.
Indication	Power ON: Red LED Visible upon removal of probe head cover
Electrical entry	1/2" NPT(F) per ASME B1.20.1 - 1 No.nylon cable gland
Probe type and construction	■ Guarded type ■ 2 element, rigid rod
Probe insulation	■ PTFE: Upto 210°C ■ Ceramic: 211°C ... 500°C
Probe length (Refer probe length table)	■ 250 mm minimum ■ 600 mm maximum
Probe diameter	32 mm, ±2 mm
Wetted parts	■ Sensing element: 316 SS ■ Insulation PTFE – Process temperature below 210°C Ceramic – Process temperature above 211°C upto 500°C ■ Guard with process connection: Refer ordring matrix
Process connection and material	Refer ordering matrix
Permissible process pressure	0.5 bar maximum
Temperature stand-off for probe electronics	280 mm extended height
Ingress protection	IP65
Mounting	■ Top ■ Side

Output signal	
Response time	<1 second

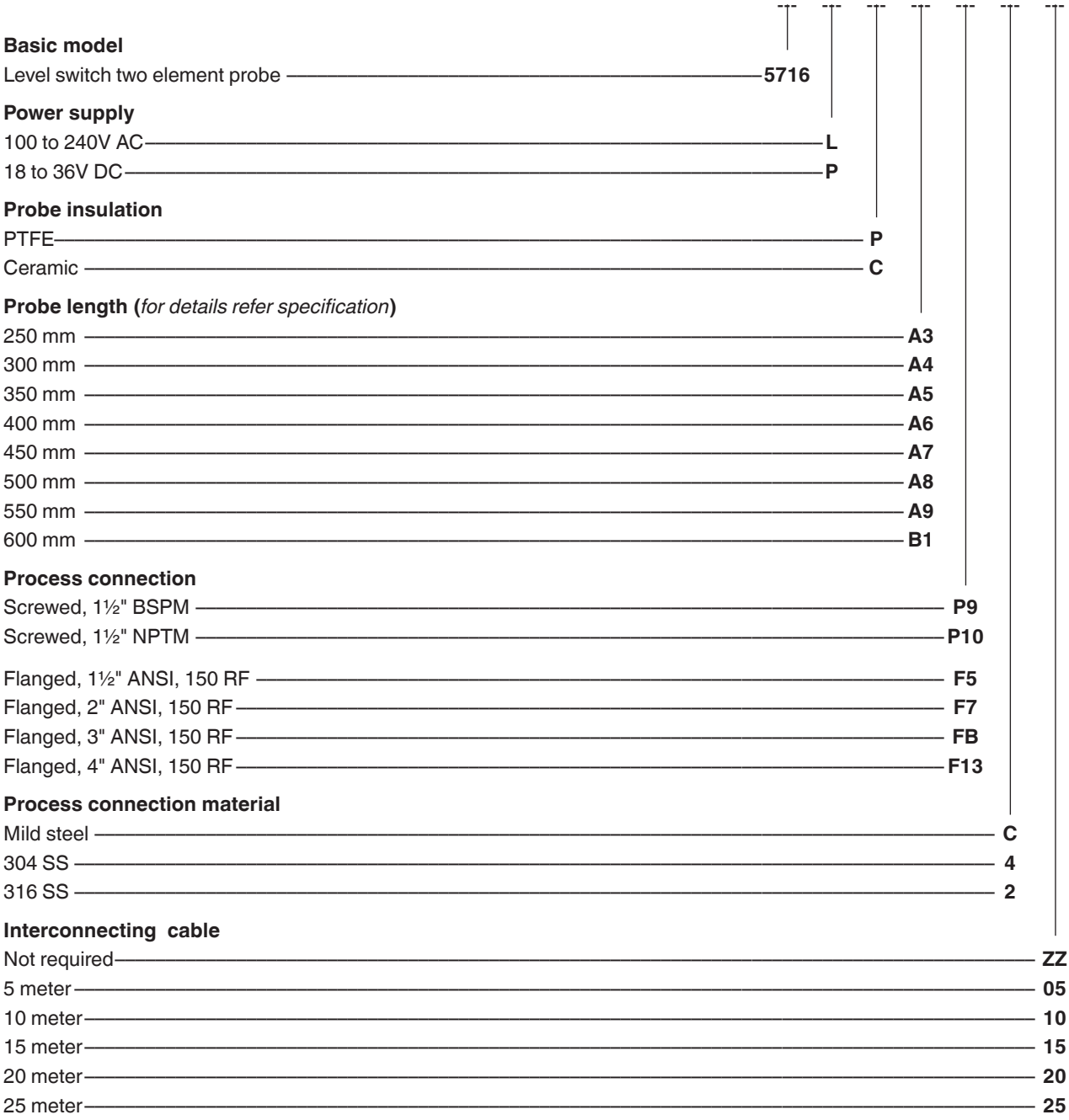
Remote control unit	
Switch enclosure	Aluminium pressure die cast weatherproof
Power	■ 100 to 240V AC ■ 18 to 36V DC (option)
Input	Pulse signal from probe unit
No. of setpoint	One
Setpoint Calibration	Through push button
Setpoint On-Off Differential	Pre-fixed 2 to 10 pF. Selectable through DIP switch
Alarm Mode	■ Low or High ■ Selectable through DIP switch
Relay Mode	■ Normal or failsafe ■ Selectable through DIP switch
Time delay	■ Pre-fixed 0, 3, 6, 9 seconds ■ Selectable through DIP switch
Output	1 × DPDT relay
Contact Rating	5A @ 250V AC / 28V DC
Indications	■ Power ON: Red LED ■ Material present: Green LED ■ Delay ON: Yellow LED Blinking ■ Relay ON: Yellow LED Stable
Electrical Connection (Probe, Power, Relay)	■ 11 Position screw clamp terminals suitable for 2.5 sq. mm wires ■ 1/2" NPT(F) per ASME B1.20.1 – 3 Nos., nylon cable gland ■ Other electrical entry consult sales
Ingress protection	IP65
Mounting	■ Surface ■ Wall

Probe length table

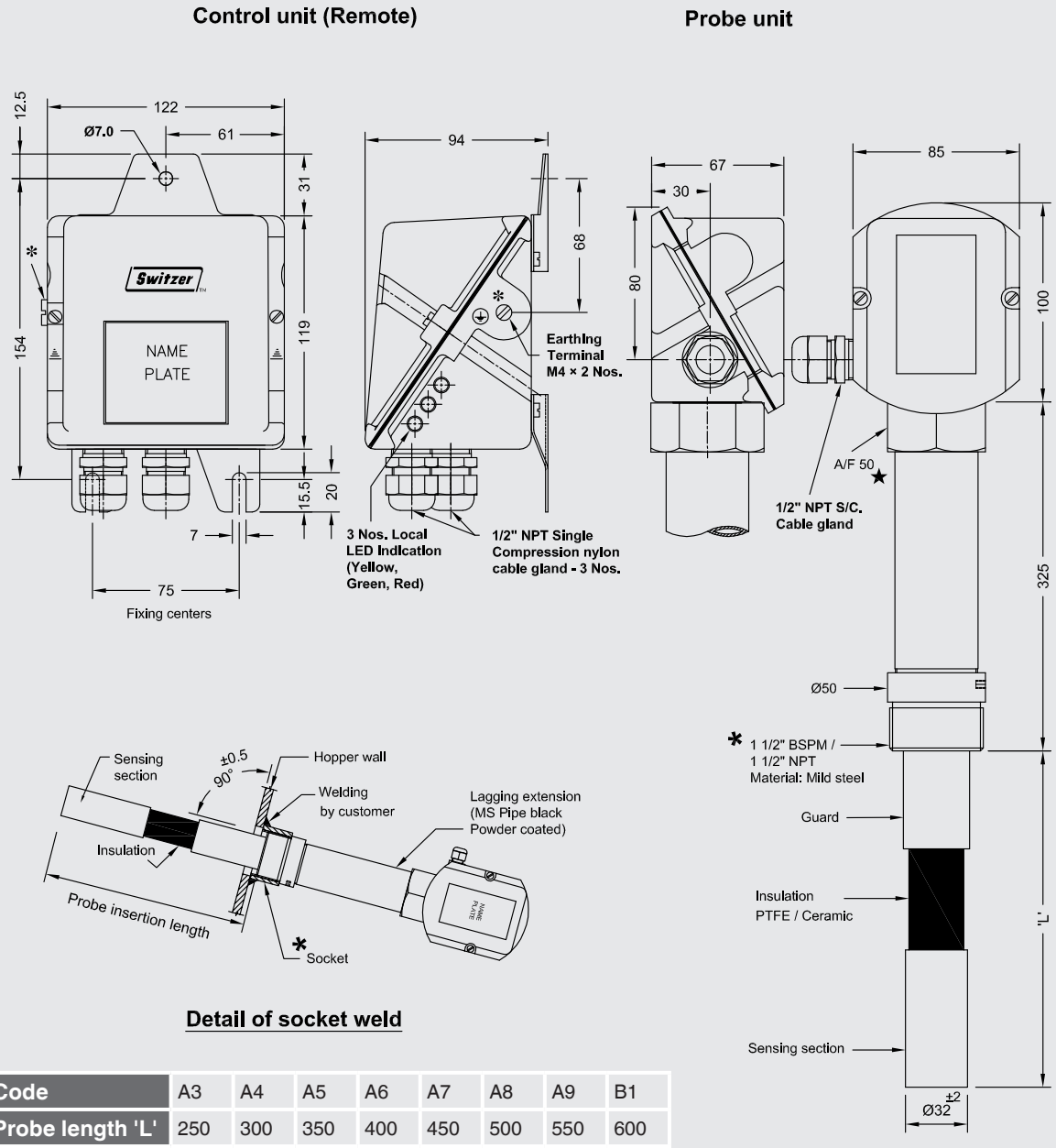
Code	Probe length (mm)	G	I	P
A3	250	100	50	100
A4	300	100	100	100
A5	350	150	100	100
A6	400	200	100	100
A7	450	250	100	100
A8	500	300	100	100
A9	550	350	100	100
B1	600	400	100	100



Ordering matrix



Dimensions in mm



Detail of socket weld

Code	A3	A4	A5	A6	A7	A8	A9	B1
Probe length 'L'	250	300	350	400	450	500	550	600

Ordering information

Basic model / Power supply / Probe insulation / Probe length / Process connection / Proess connection material / Interconnecting cable

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