



# hmi

high-accuracy  
measurement  
instruments

FICHA TÉCNICA DE PRODUTO

PRODUCT DATASHEET

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**HMI – Automação e Instrumentação, Lda.**

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# A75 RF Capacitance Level Switch

Measurement made easy

K-TEK Level products



## Features

- Low Cost
- Totally Potted Electronics
- Built-In Static Protection
- Vibration Resistant
- DPDT Relay
- Ambient Temperatures Up to 185°F (85°C)
- NEMA 4 Enclosure
- 5, 10 or 15 Second Time Delay

## Options

- Teflon or PVC Sheathed Probe or Cable
- Extended Lower Bushing
- Flanged Process Connections
- Epoxy Coated Aluminum Enclosure

## Applications

Dry Bulk Applications

- High Level Alarm
- Low Level Alarm
- Plugged Chute Detection
- Fly Ash Hopper Level
- Pellets

- Granules
- Powders
- Chips
- Flakes

Liquid Applications

- High Level Alarm
- Low Level Alarm
- Interface
- Slurries
- Flow / No Flow
- Liquid / Foam Interface
- Foams
- Conductive Products
- Non-Conductive Products
- Organic
- Inorganic

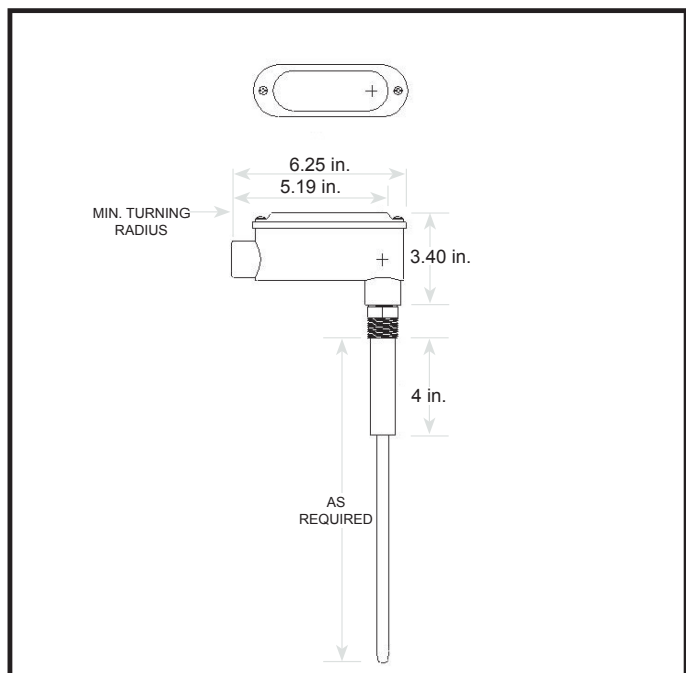
Special Applications

- High Temperature
- Corrosive Environments
- High Pressure
- Special Probe Materials

## SPECIFICATIONS

Environmental	
Housing type	Aluminum enclosure rated NEMA 4
Temperature	Electronics: -40 to 185° F / -40 to 85°C Ambient
Dielectric	Ideal: 10 or greater; Consult factory for probe selection on lower dielectric applications
Electrical	
Electronic Unit Input Power	95-130 VAC, 50-60 Hz, 2 Watts; 9-35 VDC, 100 mA Max
Relay Contact Rating	Resistive: 5 Amp, 240 VAC; 5 Amp, 30 VDC Inductive: 1/10 HP 125, 250 VAC
Sensitivity	With an initial load of 30 pF, an increase of 2.5 pF can be detected.
Mechanical	
Weight	Unit with 10" Probe: 4 lbs.
Process Connection	Category "2" Probe: 3/4" NPT Category "1" Probe: 1/2" NPT

## DIMENSIONS



## ORDERING INFORMATION

### A75.a.b.c.d.e.f.g.h.i.j:

#### .a Operating Voltage

A	120 VAC
B	240 VAC
D	12 VDC / 24 VDC

#### .b Probe Type

Category "1" Probes		Operating Temp. <sup>1</sup>	Operating Pressure <sup>1</sup>
1	316SS Probe / 4" *Delrin® Lower Bushing	A	A
2	316SS Probe / 4" *Teflon® Lower Bushing	C	A
9	*Teflon® Sheathed Probe / 316SS Mounting Nipple	C	A
Category "2" Probes		Operating Temp. <sup>1</sup>	Operating Pressure <sup>1</sup>
1	316SS Probe / 4" *Delrin® Lower Bushing	A	A
2	316SS Probe / 4" *Teflon® Lower Bushing	C	A

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## ORDERING INFORMATION (continued)

A75.a.b.c.d.e.f.g.h.i.j:			
5	Fly Ash Probe / 8" 316SS Inactive Sheath	D	B
6	Bare Covered Cable / 13" 316SS Weight	A	D
8	PVC Covered Cable / 13" Teflon® Weight	A	D
N	*Teflon® Covered Cable / 13" *Teflon® Weight	C	D
B	Macroprobe (3/4" OD Probe *Delrin® Bushing)	A	A
T	Macroprobe (3/4" OD Probe *Teflon® Bushing)	C	A
K	1-1/2" Quick Release Clamp Probe / 4" *Teflon® Bushing	A	A
L	1-1/2" Quick Release Clamp Probe / *Teflon® Sheathed Probe	A	A
R	*Teflon® Sheathed Probe / 316SS Mounting Nipple	C	A
S	*Teflon® Sheathed Probe / *Teflon® Mounting Nipple	C	D

\*Registered Trademark of DuPont

#### .c Probe Category

1	1/2" NPT – 3/8" OD Rod
2	3/4" NPT – 1/2" OD Rod

#### .d Process Connection Type

X	None
FL	Flange Shipped Loose
WP	Welded Flange

#### .e Process Connection Material

X	None
316	316L Stainless Steel
CST	Carbon Steel

#### .f Process Connection Size/Rating

X	None
R11	1 in. // ANSI / ASME Class 150 // Raised Face Flange
R13	1 in. // ANSI / ASME Class 300 // Raised Face Flange
R151	1.5 in. // ANSI / ASME Class 150 // Raised Face Flange
R153	1.5 in. // ANSI / ASME Class 300 // Raised Face Flange
R21	2 in. // ANSI / ASME Class 150 // Raised Face Flange
R23	2 in. // ANSI / ASME Class 300 // Raised Face Flange
R251	2.5 in. // ANSI / ASME Class 150 // Raised Face Flange
R253	2.5 in. // ANSI / ASME Class 300 // Raised Face Flange
R31	3 in. // ANSI / ASME Class 150 // Raised Face Flange
R33	3 in. // ANSI / ASME Class 300 // Raised Face Flange
R41	4 in. // ANSI / ASME Class 150 // Raised Face Flange
R43	4 in. // ANSI / ASME Class 300 // Raised Face Flange
R61	6 in. // ANSI / ASME Class 150 // Raised Face Flange
R63	6 in. // ANSI / ASME Class 300 // Raised Face Flange
D2516	DN 25 // PN 16 // Raised Face Flange
D2525	DN 25 // PN 25 // Raised Face Flange
D4016	DN 40 // PN 16 // Raised Face Flange
D4025	DN 40 // PN 25 // Raised Face Flange
D5016	DN 50 // PN 16 // Raised Face Flange
D5025	DN 50 // PN 25 // Raised Face Flange
D6516	DN 65 // PN 16 // Raised Face Flange
D6525	DN 65 // PN 25 // Raised Face Flange
D8016	DN 80 // PN 16 // Raised Face Flange
D8025	DN 80 // PN 25 // Raised Face Flange
D10016	DN 100 // PN 16 // Raised Face Flange
D10025	DN 100 // PN 25 // Raised Face Flange
D15016	DN 150 // PN 16 // Raised Face Flange
D15025	DN 150 // PN 25 // Raised Face Flange
Z99	Greater than ANSI / ASME Class 300 // PN 25 Flange

## ORDERING INFORMATION (continued)

### A75.a.b.c.d.e.f.g.h.i.j:

.g Housing Type	
A	Aluminum (STD) 1" FNPT Cable Connection
P	PVC (not NEMA rated)
.h Tag	
X	None
L	Stainless Steel Tags
.i Bushings	
X	None
Z1	Delrin® Extended Lower Bushing (Probe type 1 and B only)
Z2	PTFE Extended Lower Bushing (Probe type 2, T and K only)
Z3	316 SS Extended, Inactive Sheath (Probe type 5 probe only)
.j Cable Connections	
X	None
B	1" x 3/4" Reducing Bush
MM	3/4" x M20 SS Adapter

### Probe Lengths - Rigid Probe in Inches; Cable Probe in Feet

### Services will follow the model code with / and will not be included on the device tag

#### Services

GD1	Drawings for Approval - NOTE: Lead time will start after receipt of customer approved drawings
GD2	Drawings for Record
GD3	Certified as Built Drawings - NOTE: Lead time will start after receipt of Purchase Order
CRA	Radiographic Examination on all Pressure containing Butt Welds / and all other welds are Liquid Dye Penetrant (Final Pass Only) (Per Tag)
CNA	Liquid Dye Penetrant Examination on all Pressure containing Welds (Final Pass Only) (Per Tag)
CHC	Positive Material Identification with Carbon Content
CHD	Positive Material Identification without Carbon Content
CP1	Hydrostatic Examination - (10 Minutes)
C2	Material Monitoring with Inspection Certificate 3.1 acc. EN 10204
GS1	Certificate of Origin
GS2	Certificate of Origin Notarized by Local Chamber of Commerce
GS3	Certificate of Origin Legalized by Specific Country Chamber of Commerce - Lead Time may be Extended depending on Country
GS5	NAFTA Certificate
GS6	EX-IM BANK Certificate (One per Tag)
CU3	Certificate of Functionality
CN1	NACE (MR 0103) Hardness Certificate (Requires C2 in Material Monitoring)

#### 1 - Temperature / Pressure Codes

Operating Temperature Codes	Operating Pressure Codes
A -40 to 185°F / -40 to 85°C	A 1500 psi @ 77°F / 103 bar @ 25°C
B -40 to 320°F / -40 to 160°C	B Static Head Only (Consult Factory)
C -40 to 450°F / -40 to 230°C	C 150 psi / 10.3 bar
D 200 to 1400°F / 95 to 760°C	D 100 psi / 7 bar

# Contact us

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## Note











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 <p>Natural Gas Measurement</p>	 <p>Pressure Measurement</p>
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