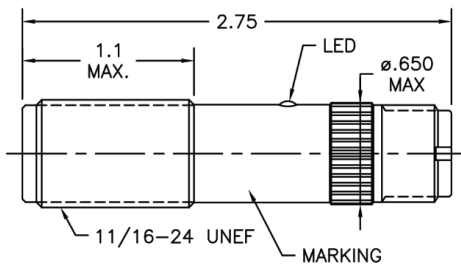


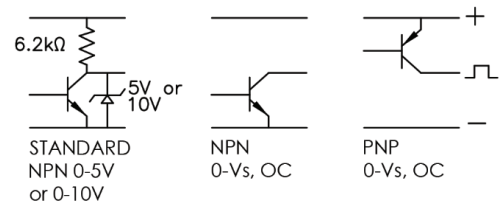
Digispec RF

RF With Pulse Output, Connector Type, 11/16-24

VO, PULSE OUT	FEATURE	PRODUCT CODE	MARKING #	P/N
0 - 5 V, NPN @ ≤ 20mA sink	50 kHz	RF-5Vo HS 50kHz-MO3 K11/16-24x1.1/2.8" 2TE	FM DR-001-50kHz	0097-11C00
	w/ LED	RF-5Vo LED-MO3 K11/16-24x1.1/2.8" (100°C)	FM DR-001L	0097-11A00
	w/ RTD	RF-5Vo HS RTD-B6 K11/16-24x1.1/2.8" 3TE	FM DR-001RTD	0097-5A100
	w/ RTD & LED	RF-5Vo LED RTD-B6 K11/16-24x1.1/2.8" (100°C)	FM DR 001LRTD	0097-5AA00
0 - 10 V, NPN @ ≤ 20mA sink	w/ LED	RF-10Vo LED-MO3 K11/16-24x1.1/2.8" (100°C)	FM DR-003L	0097-11B00
0 - Vs, OC, PNP @ ≤ 20mA source	w/ LED	RF-Vs OC PNP LED-MO3 K11/16-24x1.1/2.8" (100°C)	FM DR-004L	0097-11D00
0 - Vs, OC, NPN @ ≤ 20mA sink	w/ LED	RF-Vs OC LED-MO3 K11/16-24x1.1/2.8" (100°C)	FM DR-005L	0097-11E00



OUTPUT CONFIGURATIONS:



OPERATING FREQUENCY: ≤ 0.5 Hz TO 5000 Hz

DEPENDING ON TARGET MASS AND AIR GAP

CONSTRUCTION:

HOUSING: 303 SS, SOLID EPOXY ENCAPSULATION

CONNECTOR (GOLD PLATED CONTACTS)

MO3: MS-3102-10SL-3P MATE: MS-3106-10SL-3S

B6: PT02A-10-6P MATE: PT06A-10-6S

HIGH SHOCK AND VIBRATION RESISTANCE

(IMPACT: 25Gs MIN., VIBRATION: 2Gs AT 2000 Hz MIN.)

SUPPLY VOLTAGE:

11 - 30 VDC @ ≤ 25mA (≤ 18mA max for OC versions)

TEMPERATURE RANGE:

LED: -40° to +212° F (-40° to +100° C)

2TE: -40° to +250° F (-40° to +120° C)

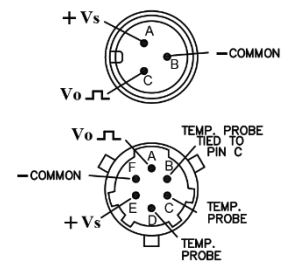
3TE: -40° to +284° F (-40° to +140° C)

TEMPERATURE PROBE:

RTD 100Ω; ACCURACY: CLASS A [±0.15 +0.002*T (°C)]

CE COMPLIANCE:

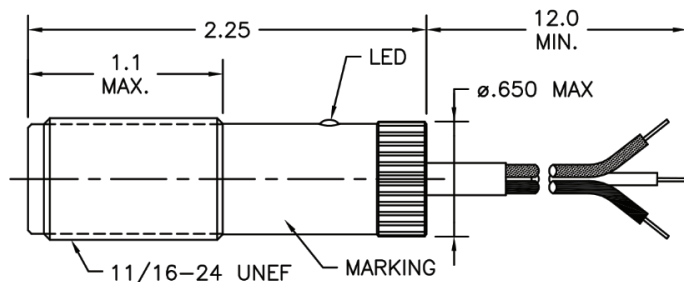
EN 55011, EN 50082-2



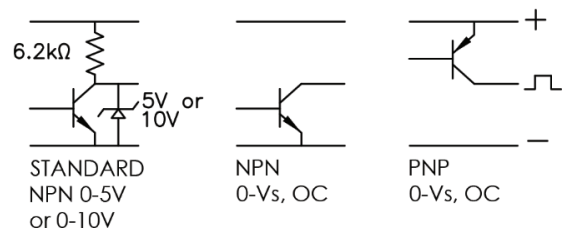
Digispec RF

RF With Pulse Output, Lead Wire Type, 11/16-24

VO, PULSE OUT	FEATURE	PRODUCT CODE	MARKING #	P/N
0 - 5 V, NPN @ ≤ 20mA sink	w/ LED	RF-5Vo LED-L12" K11/16-24x1.1/2.3" (100°C)	FM DR-001LX	0098-11A01
	w/ RTD	RF-5Vo HS RTD-L12" K11/16-24x1.1/2.3" 3TE	FM DR-001RTDX	0098-1A101
	w/ RTD & LED	RF-5Vo LED RTD-L12" K11/16-24x1.1/2.3" (100°C)	FM DR-001LRTDX	0098-1AA01
0 - 10 V, NPN @ ≤ 20mA sink	w/ LED	RF-10Vo LED-L12" K11/16-24x1.1/2.3" (100°C)	FM DR-003LX	0098-11B01
0 - Vs, OC, PNP @ ≤ 20mA source	w/ LED	RF-Vs OC PNP LED-L12" K11/16-24x1.1/2.3" (100°C)	FM DR-004LX	0098-11D01
0 - Vs, OC, NPN @ ≤ 20mA sink	w/ LED	RF-Vs OC LED-L12" K11/16-24x1.1/2.3" (100°C)	FM DR-005LX	0098-11E01



OUTPUT CONFIGURATIONS:



OPERATING FREQUENCY: ≤ 0.5 Hz TO 5000 Hz

DEPENDENT ON TARGET MASS AND AIR GAP

CONSTRUCTION:

HOUSING: 303 SS, SOLID EPOXY ENCAPSULATION

LEAD WIRES:

20 AWG, TFE INSULATED

HIGH SIGNAL OUTPUT

HIGH SHOCK AND VIBRATION RESISTANCE

(IMPACT: 25Gs MIN., VIBRATION: 2Gs AT 2000 Hz MIN.)

SUPPLY VOLTAGE:

11 - 30 VDC @ ≤ 25mA (≤ 18mA max for OC versions)

TEMPERATURE RANGE:

LED: -40° to +212° F (-40° to +100° C)

2TE: -40° to +250° F (-40° to +120° C)

3TE: -40° to +284° F (-40° to +140° C)

TEMPERATURE PROBE:

RTD 100Ω; ACCURACY: CLASS A [±0.15 +0.002*T (°C)]

CE COMPLIANCE:

EN 55011, EN 50082-2

LEAD WIRE ASSIGNMENTS

RED: SUPPLY POWER

BLACK: COMMON

WHITE: OUTPUT SIGNAL

SECOND BUNDLE (RTD feature only):

RED: RTD

BLACK x2: RTD

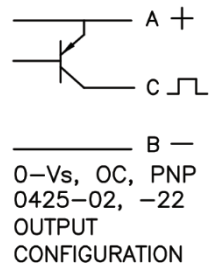
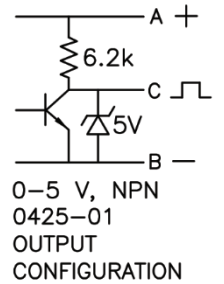
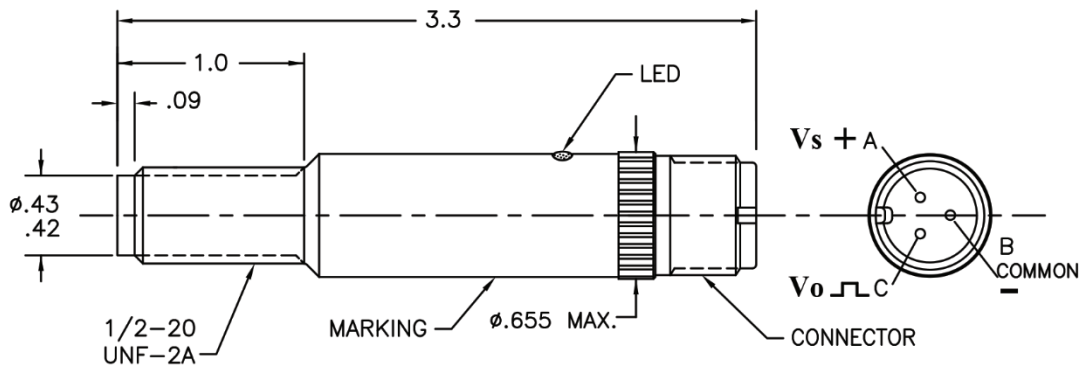
(TIED TOGETHER FOR LEAD WIRE RESISTANCE COMPENSATION)



Digispec RF

RF/ HFL With, Pulse Output, Connector Type, 1/2-20

FLOWMETRICS P/N	Vs Supply Voltage	Vo Pulse Out	PRODUCT CODE	P/N
0425-01	7 - 30 VDC @ 18 mA max.	0 -5 V, NPN 25 mA sink	RF-5Vo-LED-MO3 K 1/2-20x1.0/3.3", 2TE	0425-01
0425-02		0 -Vs, OC, PNP 20 mA source	RF-Vs PNP LED-MO3, K 1/2-20x1.0/3.3", 2TE	0425-02
0425-22	7 - 30 VDC @ 20 mA max.	0 -Vs, OC, PNP 20 mA source	HFL-Vs PNP LED-MO3 K 1/2-20x1.0/3.3", 2TE	0425-22



SENSOR TYPE: DIGISPEC RF SENSOR WITH LED INDICATOR
HFL SENSOR WITH LED INDICATOR

CONSTRUCTION: HOUSING: 303 OR 304 SS, INCLUDING FACE
SOLID EPOXY ENCAPSULATION
POLARITY PROTECTED
CONNECTOR: MS3: MS-3102-10SL-3P

TEMPERATURE RANGE: -40° to 257° F (-40° to 125° C)

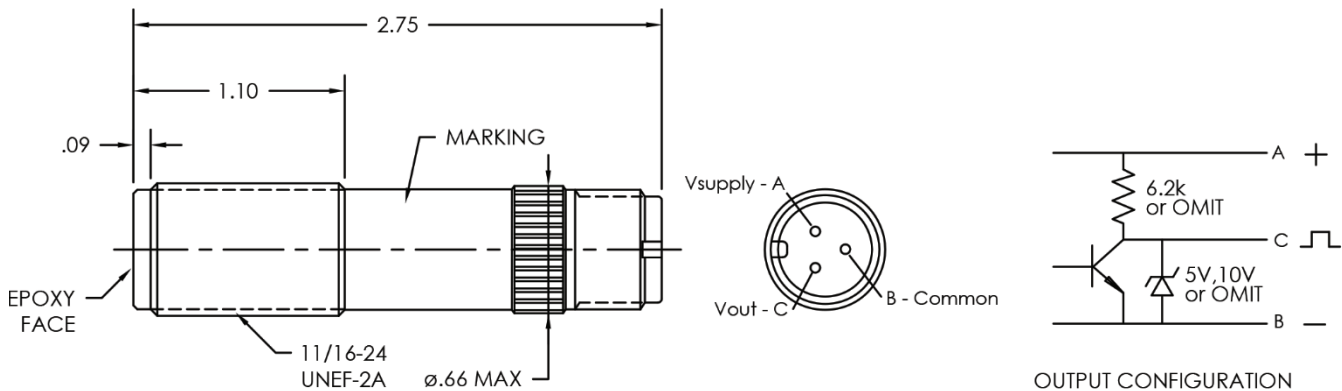
CE COMPLIANCE: EN 55011, EN 50082-2



Digispec RF

Intrinsically Safe, Connector Type, 11/16-24

OUTPUT TYPE	PRODUCT CODE	P/N
0-5V, NPN	RF-IS-5Vo-MO3 K11/16-24x1.1/2.8"	IS100-K3111
0-10V, NPN	RF-IS-10Vo-MO3 K11/16-24x1.1/2.8"	IS100-K3112
0-Vs, NPN OC	RF-IS-Vs OC-MO3 K11/16-24x1.1/2.8"	IS100-K3114



SPECIFICATIONS

Supply Voltage & Current:	8-30Vdc @ $\leq 15\text{mA}$
Output Voltage:	See table above (20 mA max. current sink) Reverse polarity protected
Frequency Range:	$\geq 0.5\text{ Hz}$ to $\leq 5\text{ kHz}$
Air Gap:	$\leq .20\text{''}$ Depending on target mass
Connector:	MS3102A10SL-3P 3 Gold Plated Pins
Temperature Class & Range:	T5 -40 to 85°C T6 -40 to 65°C
Construction:	300 Series Stainless Steel Solid Epoxy Encapsulation

CERTIFICATIONS

Please refer to Installation Instruction Document # 85047 and marking on product for appropriate certification information.

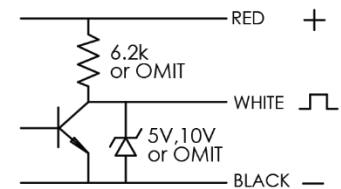
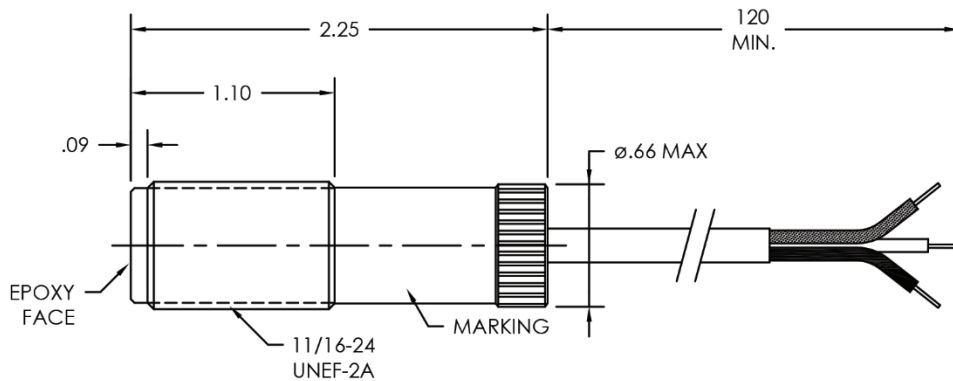
INSTALLATION

CAUTION: This sensor MUST be installed with an approved barrier and follow the details specified in the Installation Instruction Document # 85045. Refer to Bulletin 4003 for recommended barriers.

Digispec RF

Intrinsically Safe, Lead Wire Type, 11/16-24

OUTPUT TYPE	PRODUCT CODE	P/N
0-5V, NPN	RF-IS-5Vo-LS120" K11/16-24x1.1/2.3"	IS101-K3131
0-10V, NPN	RF-IS-10Vo-LS120" K11/16-24x1.1/2.3"	IS101-K3132
0-Vs, NPN OC	RF-IS-Vs OC-LS120" K11/16-24x1.1/2.3"	IS101-K3134



OUTPUT CONFIGURATION

SPECIFICATIONS

Supply Voltage & Current:	8-30Vdc @ $\leq 15\text{mA}$
Output Voltage:	See table above (20 mA max. current sink) Reverse polarity protected
Frequency Range:	$\geq 0.5\text{ Hz}$ to $\leq 5\text{ kHz}$
Air Gap:	$\leq .20''$ Depending on target mass
Cable:	22 AWG, PVC Insulated 3 conductor shielded cable
Temperature Class & Range:	T5 -40 to 85°C T6 -40 to 65°C
Construction:	300 Series Stainless Steel Solid Epoxy Encapsulation

CERTIFICATIONS

Please refer to Installation Instruction Document # 85047 and marking on product for appropriate certification information.

INSTALLATION

CAUTION: This sensor MUST be installed with an approved barrier and follow the details specified in the Installation Instruction Document # 85045. Refer to Bulletin 4003 for recommended barriers.

Digispec RF

Intrinsically Instruction, Intrinsically Safe

Non-Hazardous Location

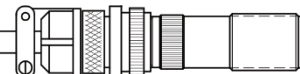


(Associated Equipment)
 $V_{max}, U_i \geq U_o, V_{oc} \text{ or } V_t$
 $I_{max}, I_i \geq I_o, I_{sc} \text{ or } I_t$
 $C_o \text{ or } C_a \geq C_i + C_c$

$L_o \text{ or } L_a \geq L_i + L_c$
 $P_t \text{ or } P_o \leq P_i$

Cable
seal

Hazardous Location



(Intrinsically Safe Equipment)
 $V_{max}, U_i = 30 \text{ Vdc}$
 $I_{max}, I_i = 100 \text{ mA}$
 $C_i = 0 \text{ nF}$ (For IS100, IS101, IS100A, IS101A, IS220, IS221, IS220A & IS221A)
 $C_i = 12 \text{ nF}$ (For IS90, IS90A, IS91, IS91A, IS160, IS160A, IS161, IS161A, IS170, IS170A, IS171 & IS171A)
 $L_i = 0 \text{ mH max.}$
 $P_{max}, P_i = 0.66 \text{ watts}$

Certifications for IS90A & IS91A,
IS100A & IS101A, IS160A & IS161A,
IS170A & IS171A, IS220A & IS221A

ATEX: II 1 G Ex ia IIC T6...T4 Ga
FM08ATEX0066X

IECEX: Ex ia IIC T6...T4 Ga
IECEX FMG 16.0003X
T4 @ $-40^\circ\text{C} \leq T_{amb} \leq +100^\circ\text{C}$
T5 @ $-40^\circ\text{C} \leq T_{amb} \leq +85^\circ\text{C}$
T6 @ $-40^\circ\text{C} \leq T_{amb} \leq +65^\circ\text{C}$

CE: Compliance with
EN55011, EN50082-2

Certifications for IS90 & IS91,
IS100 & IS101, IS160 & IS161,
IS170 & IS171, IS220 & IS221

USA: Intrinsically Safe
Class I, II, III, Division 1
Group ABCDEFG T6...T5
Class I, Zone 0, AEx ia IIC T6...T5

Canada: Intrinsically Safe
Class I, Division 1
Group ABCD T6...T5
Class I, Zone 0, Ex ia IIC T6...T5
T5 @ $-40^\circ\text{C} \leq T_{amb} \leq +85^\circ\text{C}$
T6 @ $-40^\circ\text{C} \leq T_{amb} \leq +65^\circ\text{C}$

1. Barrier must satisfy the electrical requirements listed above.

Barrier manufacturer's installation drawing must be followed when installing the system. For US installations, the Barrier configuration must be FM Global approved. See Bulletin 4003 for recommended barriers.

2. Installation to be in accordance with the following standards:

for US installations follow ANSI/ISA RP12.6 and the National Electrical Code ANSI/NFPA 70,

for Canadian installations follow the Canadian Electrical Code,

for ATEX installations follow EN 60079-14, for IECEX installations follow IEC 60079-14.

3. Control Equipment connected to associated equipment must not use or generate more than 250V.

4. Sensor must be mounted as part of a bonded structure.

5. Sensor should be de-energized before separating connector and sensor.

6. Aluminum housings: The mounting bracket contains aluminum and is considered to constitute a potential risk of ignition by impact or friction and must be taken into account during installation.

7. Lead Wires: Red/Vs+, Black/Common-, White/Vo Output A, Yellow/Vo Output B, Green/Direction

Connector:

