Orange Research
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Product specifications for model 2323

Product Specifications (switch, relay)

sensor type	variable-area
functions	**Gauge/Switch , Switch**
min. range	0-1 GPM water, 1.5-10 SCFM compressed air (at 100 PSIG, 70°F)
max. range	0-10 GPM water, 10-100 SCFM compressed air (at 100 PSIG, 70°F)
max. line pressure	5000 psig
min. burst pressure	13000 psig
standard maximum temperature	gauge/switch: 176°F standard, 150°F (plastic lens) switch: 176°F standard, 140°F relay
high temperature construction	N/A
minimum temperature*	**Consult factory for low-temperature applications.*
calibration accuracy**	±2% of full scale ascending after rap at room temperature (for standard water & standard hydraulic oil) ±5% (for std. compressed air calibration) ***Calibration accuracy is affected by temperature, and also by liquid-filling and follower-pointer options.*
repeatability	±1% of full scale
switches/relay	1 or 2 hermetically sealed reed switches or 1 relay in weatherproof enclosure
switch adjustability	upper 80% of full scale ascending (70% for B & C form switches in SST)
switch dead band	5-20% full scale
certification/rating	CSA Class I,Div. 2,Groups A,B,C & D; Class II,Div. 2,Groups F & G (File 152872) NEMA 4X,IP65 **Consult factory for CE equivalent.*

Standard configuration options (switch, relay)

configuration	unless otherwise specified	standard options available
porting size	1/2" NPT	N/A
porting orientation	in-line	N/A
direction of flow	left to right	right to left (reverse porting), vertical flow up, vertical flow down
calibration medium	(must be specified) (Oil not available for EPDM units)	water (S.G.=1, Vis.=1 CS) hydraulic oil (S.G.=.86, Vis.=78 CS) compressed air (100 PSIG, 70ºF)
switches	(must be specifed)	**-A** SPST N/O (120VAC,0.7A,70VA;200VDC,1.0A,50W) **-B** SPST N/C (120VAC,0.25A,5VA;175VDC,0.25A,5W) **-C** SPDT (120VAC,0.25A,5VA;175VDC,0.25A,5W) **-R2** DPDT relay (contacts:120VAC,28VDC,10A coil:120VAC or 24VDC)
switch setting	set at top of range ascending	other set points within adjustability ascending or descending
primary wetted parts	(must be specified)	aluminum, 316SS, naval brass
secondary wetted parts	range spring: 302SS magnet: Teflon-coated ceramic metering cone: Delrin	Teflon-coated spring, Teflon metering cone
static seals	buna-N	Viton,Teflon,neoprene,EPDM,fluorosilicone
lens	glass	plastic
dial sizes	(must be specified)	2.5", 3.5", 4.5", 6"
dial case styles +	(must be specified)	"B" Basic Case (c-clamp not available) "F" Flanged Case (w/holes for panel mounting)
starting mark on dial	approximately 10% of full scale	N/A

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Product specifications for model 2323

Product Specifications (transmitter)

sensor type	variable-area
functions	**Gauge/Transmitter, Transmitter (Loop powered)**
min. range	0-1 GPM water, 1.5-10 SCFM compressed air (at 100 PSIG, 70°F)
max. range	0-10 GPM water, 10-100 SCFM compressed air (at 100 PSIG, 70°F)
max. line pressure	5000 psig
min. burst pressure	13000 psig
standard maximum temperature	gauge/transmitter: 200°F (glass lens), 150°F (plastic lens) transmitter: 200°F
high temp. construction	N/A
minimum temperature	-20°F
calibration accuracy∗∗	±2% of full scale ascending after rap at room temperature ∗∗*Calibration accuracy is compensated for temperature effects between -20°F - 200°F*
repeatability	±1% of full scale
transducer enclosure	weatherproof
certification	CSA Class I,Div. 2,Groups A,B,C & D; Class II,Div. 2,Groups F & G (File 152872) NEMA 4X,IP65 ∗*Consult factory for CE equivalent.*

Standard configuration options (transmitter)

configuration	unless otherwise specified	standard options available
porting size	1/2" NPT	N/A
porting orientation	in-line	N/A
direction of flow	left to right	right to left (reverse porting), vertical flow up, vertical flow down
calibration medium	(must be specified) (oil N/A for EPDM untis)	water (SG=1, VIS=1 CS) hydraulic oil (SG=.86 VIS=78 CS) compressed air (100 PSIG,70°F)
electronic outputs	analog outputs: 4-20 mA (2 wire) 0-5 VDC (3 or 4 wire)	
supply voltage	9-35 VDC (reverse polarity protected)	
loop resistance	1300 ohms max. R=((Vs-9)*1000)/20 (ohms at Vs)	
board connection	**1:** + (EXC) **2:** - **3:** 0-5 V **4:** COM 20-26 AWG wire	
conduit connection	½" trade size	
primary wetted parts	(must be specified)	aluminum, 316SS, naval brass
secondary wetted parts	range spring: 302SS magnet: Teflon-coated ceramic metering cone: Delrin	Teflon-coated spring, Teflon metering cone
static seals	buna-N	Viton, Teflon, neoprene, EPDM, fluorosilicone
lens	glass	plastic
dial sizes	(must be specified)	2.5", 3.5", 4.5", 6"
dial case styles+	(must be specified)	"B" Basic Case (*C-clamp not available*) "F" Flanged Case (w/holes for panel mounting)
starting mark on dial	approximately 10% of full scale	N/A