

140 Cascade Boulevard, Milford, Connecticut 06460 203 877-5657 800 989-5657 Fax: 203 783-9546 www.orangeresearch.com

Product specifications for model 1833

Product Specifications (switch, relay)

sensor type	diaphragm		
functions	gauge/switch, switch		
min. range	0-5 in. H ₂ O		
max. range	0-8 psid (221 in. H ₂ O)		
max. line pressure	150 psig		
min. burst pressure	250 psig, tested hydrostatically		
standard maximum	gauge: 200°F standard, 150°F (plastic lens)		
temperature	gauge/switch: 176°F standard, 150°F (plastic lens)		
	switch: 176°F standard, 140°F relay		
high temp. construction	N/A		
minimum temperature*	*Consult factory for low-temperature applications.		
calibration accuracy**	±2% of full scale ascending after rap at room temperature		
	**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	CSA Class I,DIV. 2,Groups A,B,C & D;		
	Class II,DIV. 2,Groups F & G (File 152872)		
	NEMA 4X, IP65, CE		

Standard configuration options (switch, relay)

configuration	unless otherwise specified	standard options available
porting size	1/4" NPT	1/2" NPT
porting orientation	in-line	N/A
direction of pressure	left to right	right to left (reverse porting)
calibration medium	air	N/A
switches & relays	(must be specified)	-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/relay setting	set at top of range ascending	other set points within adjustability ascending or descending
primary wetted parts	316 SS	N/A
secondary wetted parts	range spring: 302 SS magnet: ceramic	Teflon-coated spring and magnet
static seals	buna-N,except Viton for high temp	Viton, Teflon, EPDM, fluorosilicone, silicone
diaphragm	buna-N,except Viton for high temp	Viton, EPDM, fluorosilicone, silicone
lens	glass	plastic
dial sizes	(must be specified)	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

GN108-21, Rev. N Page 1 of 2



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Product specifications for model 1833

Product Specifications (transmitter)

sensor type	diaphragm		
functions	gauge/transmitter, transmitter (loop powered)		
min. range	0-5 in. H ₂ O		
max. range	0-8 psid (221 in. H ₂ O)		
max. line pressure	150 psig		
min. burst pressure	250 psig; tested hydrostatically		
standard maximum	gauge/transmitter: 200°F (glass lens), 150°F (plastic lens)		
temperature	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, CE		

Standard configuration options (transmitter)

configuration	unless otherwise specified	standard options available	
porting size	1/4" NPT	1/2" NPT	
porting orientation	in-line	N/A	
direction of pressure	left to right	right to left (upside down orientation with arc on bottom)	
calibration medium	air	N/A	
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	316 SS	N/A	
secondary wetted parts	range spring: 302 SS magnet: ceramic	Teflon-coated spring and magnet	
static seals	buna-N	Viton, Teflon, neoprene, EPDM, fluorosilicone, silicone	
diaphragm	buna-N	Viton, EPDM, fluorosilcone, silicone	
lens	glass	plastic	
dial sizes	(must be specified)	2.5", 3.5", 4.5", 6"	
dial case styles	(must be specified)	"B" Basic Case (<i>C-clamp not available</i>) "F" Flanged Case (w/holes for panel mounting)	
starting mark on dial	approximately 10% of full scale	N/A	

GN108-21, Rev. N Page 2 of 2