

Orange Research

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Product specifications for model 1504

Product Specifications (switch)

sensor type	diaphragm
functions	gauge/switch, switch
min. range	0-8 psid
max. range	0-300 psid
max. line pressure	3000 psig
min. burst pressure	10000 psig
standard maximum temperature	gauge/switch: 176°F standard, 150°F (plastic lens) switch: 176°F 140°F (relay)
high temp. construction	300°F
minimum temperature*	<i>*Consult factory for low-temperature applications.</i>
calibration accuracy**	±2% of full scale ascending after rap at room temperature <i>**Calibration accuracy is affected by temperature, and also by liquid-filling and follower-pointer options.</i>
repeatability	±1% of full scale for most ranges; ±2% of full scale for ranges 10 psid or below
switches/relays	1 or 2 hermetically sealed reed switches or 1 or 2 relays in explosion-proof 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 (File 080299), NEMA 3, 4X, IP66, 7BCD, 9EFG, 12 Class I (Groups B, C & D) Class II (Groups E, F, G) Class III

Standard configuration option (switch)

configuration	unless otherwise specified	standard options available
porting size	1/4" NPT	1/2" NPT
porting orientation	side	N/A
direction of pressure	bottom to top (dial reads left to right)	upside-down orientation (dial reads right to left, with arc on bottom)
calibration medium	air	N/A
switches	(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) -R1 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
secondary wetted parts	range spring: 302SS magnet: ceramic	Teflon-coated spring and magnet
static seals	buna-N	Viton, Teflon, neoprene, EPDM, fluorosilicone
diaphragm	(must be specified)	Buna-N, Viton, EPDM, fluorosilicone
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

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Product specifications for model 1504

Product Specifications (transmitter)

sensor type	diaphragm
functions	gauge/transmitter, transmitter (Loop powered)
min. range	0-8 psid
max. range	0-300 psid
max. line pressure	3000 psig
min. burst pressure	10000 psig
standard max. 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 <i>*Calibration accuracy is compensated for temperature effects between -20°F - 200°F.</i>
repeatability	±1% of full scale for most ranges; ±2% of full scale for ranges 10 psid or below
transducer enclosure	explosion-proof
certification/rating	CSA (File 080299), NEMA 3, 4X, IP66, 7BCD, 9EFG, 12 Class I (Groups B, C & D) Class II (Groups E, F, G) Class III

Standard configuration options (transmitter)

configuration	unless otherwise specified	standard options available
porting size	1/4" NPT	1/2" NPT
porting orientation	side	N/A
direction of pressure	bottom to top (dial reads left to right)	upside-down orientation (dial reads right to left, 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. $R = ((V_s - 9) * 1000) / 20$ (ohms at Vs)	
board connection	1. + (EXC) 2. - 3. 0-5 V 4. GND	20-26 AWG wire
primary wetted parts	(must be specified)	aluminum, 316SS
secondary wetted parts	range spring: 302SS magnet: ceramic	Teflon-coated spring and magnet
static seals	buna-N	Viton, Teflon, neoprene, EPDM, fluorosilicone
diaphragm	below 10 psid: fluorosilicone 10 psid and above: buna-N	Viton, neoprene, EPDM, fluorosilicone, silicone (buna-N and Viton N/A for ranges below 10 psid)
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