Orange Research
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Product specifications for model 1516

Product Specifications (gauge, switch, relay)

sensor type	diaphragm
functions	**gauge, gauge/switch, (switch 316 SST only)**
min. range	0-25 in.H2O
max. range	0-50 psid
max. line pressure	1500 psig
min. burst pressure	6000 psig, tested hydrostatically
standard maximum temperature	gauge: 200°F standard, 150°F (plastic lens) gauge/switch: 176°F reed switch, 140°F relay, 150°F (plastic lens) switch: 176°F reed switch, 140°F relay
high temp. construction	gauge: 450°F (SST only, not available in alum. or brass) gauge/switch, switch: 300°F
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/relays	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) (switches only) NEMA 4X,IP65,CE

Standard configuration options (gauge, switch, relay)

configuration	unless otherwise specified	standard options available
porting size	1/4" NPT	1/2" NPT (1/2" NPT N/A for brass in-line)
porting orientation	(must be specified)	in-line, back, or bottom
direction of pressure	left to right	right to left (upside-down orientation with arc on bottom)
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	(must be specified)	aluminum, 316SS, naval brass
secondary wetted parts	range spring: 302SS magnet: ceramic	Teflon-coated spring and magnet
static seals	Buna-N, except Viton for high temp.	Viton, Teflon, EPDM, fluorosilicone
diaphragm	Buna-N, except Viton for high temp.	Viton EPDM and Fluorosilicone available in ranges up to 5 PSID
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 with some porting options) "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 1516

Product Specifications (transmitter)

sensor type	diaphragm
functions	**gauge/transmitter, transmitter (loop powered)**
min. range	0-25 in.H2O
max. range	0-50 psid
max. line pressure	1500 psig
min. burst pressure	6000 psig, tested hydrostatically
standard maximum temperature	gauge/transmitter: 200°F (glass lens), 150°F (plastic lens) transmitter: 200°F
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 compensated for temperature effects between -20°F - 200°F*
repeatability	±2% 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) (switches only) NEMA 4X,IP65 ∗*Consult factory for CE equivalent.*

Standard configuration options (transmitter)

configuration	unless otherwise specified	standard options available
porting size	1/4" NPT	1/2" NPT (1/2" NPT N/A for brass in-line)
porting orientation	In-line	NA
direction of pressure	left to right	N/A
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	(must be specified)	aluminum, 316SS, naval brass
secondary wetted parts	range spring: 302SS magnet: ceramic	Teflon-coated spring and magnet
static seals	Buna-N	Viton, Teflon, EPDM, fluorosilicone
diaphragm	Buna-N	Viton EPDM and Fluorosilicone available in ranges up to 5 PSID
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