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

Product specifications for model 1020

Product Specifications

sensor type	diaphragm
functions	**indicator, indicator/switch, switch**
min. break pt./set pt.	0-25" H_2O
max. range break pt./set pt.	0-30 psid
max. line pressure	1000 psig
min. burst pressure	4000 psig
standard maximum temperature	indicator: 200°F indicator/switch, switch: 176°F
high temp. construction	N/A
minimum temperature	-20°F
calibration accuracy*	±5% of standard calibration point** ascending after rap at room temperature **Calibration accuracy is affected by temperature.* ***Standard calibration point is the highest calibrated point or 70% of full scale, whichever is larger.*
repeatability	±2% of standard calibration point
switches	1 or 2 external hermetically sealed reed switches
switch adjustability	factory set (upper 80% of standard calibration point ascending, or lower 80% of standard calibration point descending)
switch dead band	5-20% full scale
certification	CE

Standard configuration options

configuration	unless otherwise specified	standard options available
porting size	1/8" NPT	N/A
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	(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)**
switch setting	set at break point ascending	other set points within adjustability ascending or descending
primary wetted parts	aluminum	N/A
secondary wetted parts	range spring: 302SS magnet: ceramic	
static seals	buna-N	Viton, fluorosilicone, neoprene, EPDM
diaphragm	buna-N	Viton, fluorosilicone, neoprene, EPDM, silicone
dial sizes & case styles	(must be specified)	1" with molded lens, 2.5" with bezel case
lens	1" dial: molded plastic 2.5" dial: glass	plastic lens available for 2.5" dial size
dial markings	colored arc, green to red (single break point)	2.5" dials only: quantity dial (E, ¼, ½, ¾, F) dual break points
break point on dial	70% of full scale	N/A
starting mark on dial	1/4 of full scale for quantity dials	N/A

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Product specifications for model 1020

Product Specifications, with –T3 or –T4 transmitter

sensor type	diaphragm
functions	**indicator/transmitter, transmitter**
min. range	0-25" H_2O
max. range	0-10 psid
max. line pressure	1000 psig
standard maximum temperature	176°F (80°C)
high temperature construction	N/A
minimum temperature	0°F (-18°C)
calibration accuracy*	±10% of full scale ascending after rap at room temperature *∗Calibration accuracy is compensated for temperature effects between 0°F and 176°F.* *∗Descending calibration available upon request.*
repeatability	±2% of full scale
transmitter enclosure	weatherproof
certification	None

Standard configuration options, with –T3 or –T4 transmitter

configuration	unless otherwise specified	standard options available
porting size	1/8" NPT	N/A
porting orientation	(must be specified)	in-line, back, or bottom
direction of pressure	left to right	N/A
calibration medium	air	N/A
electronic outputs	(must be specified)	analog outputs: 4-20 mA (2 wire) –T3 0-5 VDC (3 wire) –T4
supply voltage	9-28 VDC (reverse polarity protected)	
electrical connection	EN 175301-803 (DIN 43650) Form "C" (8 mm), 3-pin appliance connector	
connector pin-out	**1:** + (EXC) **2:** - **3:** 0-5 VDC	
primary wetted parts	aluminum	N/A
secondary wetted parts	range spring: 302SS magnet: ceramic	N/A
static seals	buna-N	Viton, fluorosilicone, EPDM
diaphragm	buna-N	Viton, fluorosilicone, EPDM
dial sizes	1"	N/A
lens	molded plastic	N/A
dial markings	colored arc, green to red (red 70% to 100% of dial arc)	Descending options available upon request

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Product specifications for model 1020

Product Specifications, –T5 or –T6 transmitter

sensor type	diaphragm
functions	**transmitter**
std. ranges	30" H_2O, 60" H_2O, 80" H_2O, 110" H_2O, 160" H_2O
max. line pressure	1000 psig
std. max. temperature	80°C (176°F)
minimum temperature	-15°C (5°F)
calibration accuracy	±5% of range, descending after rap Accuracy is guaranteed over the rangeability of the instrument (top 90% of full scale)
repeatability	±2% of full scale
porting size	1/8" NPT
porting orientation	in-line
calibration medium	air
primary wetted parts	aluminum
secondary wetted parts	range spring: 302SS magnet: SmCo
transmitter enclosure	IP65
certification	none

Standard configuration options, –T5 transmitter

configuration	unless otherwise specified	standard options available
electronic outputs	0.5 to 4.5 VDC (3 wire)	
supply voltage	5 VDC ± 5%	
electrical connection	Molex receptacle 50-57-9404 (can be modified for 24 AWG flying leads) Suggested mate: Molex header 70545-0038 -Consult factory for alternative connectors	
power-up time	500 ms max.	
power consumption	250 mW max.	
connector pin-out	**1:** gnd (black) **2:** out (white) **3:** +5V input (red) **4:** shield	
output load	resistive: 2 KOhm, minimum capacitive: 1000 pF, maximum	
static seals	buna-N	Viton
diaphragm	buna-N	Viton

Standard configuration options, –T6 transmitter

configuration	unless otherwise specified	standard options available
electronic outputs	4-20 mA (2 wire)	
supply voltage	15-28 VDC (24 VDC nominal)	
electrical connection	Molex receptacle 50-57-9404 (can be modified for 24 AWG flying leads) Suggested mate: Molex header 70545-0038 -Consult factory for alternative connectors	
power-up time	500 ms max.	
loop resistance	800 ohms max., 250 ohms (typ.) at 24 VDC, 150 ohms min.	
connector pin-out	**1:** return (black) **2:** N/C (white) **3:** +24 VDC in (red) **4:** shield	
static seals	buna-N	Viton
diaphragm	buna-N	Viton