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 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	IP65, NEMA 4X
certification	None

Standard configuration options, (with –T3 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 output	4-20 mA (2 wire)	N/A
supply voltage	9-28 VDC (reverse polarity protected)	
electrical connection	EN 175301-803 (DIN 43650) Form "C" (8 mm), 3-pin appliance connector. Mating connector included.	
connector pin-out	**1:** + (EXC) **2:** -	
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	green to red (red 70% to 100% of dial arc) level applications: red to green (red 0-30% of dial arc)	level applications: yellow to green (yellow 0-30% of dial arc)

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Product specifications for model 1020

Product Specifications, (with –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, others available up to 600" 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, NEMA 4X
certification	none

Standard configuration options, (with –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) Molex mating connector 70545-0038 included. -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, (with –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) Molex mating connector 70545-0038 included. -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