

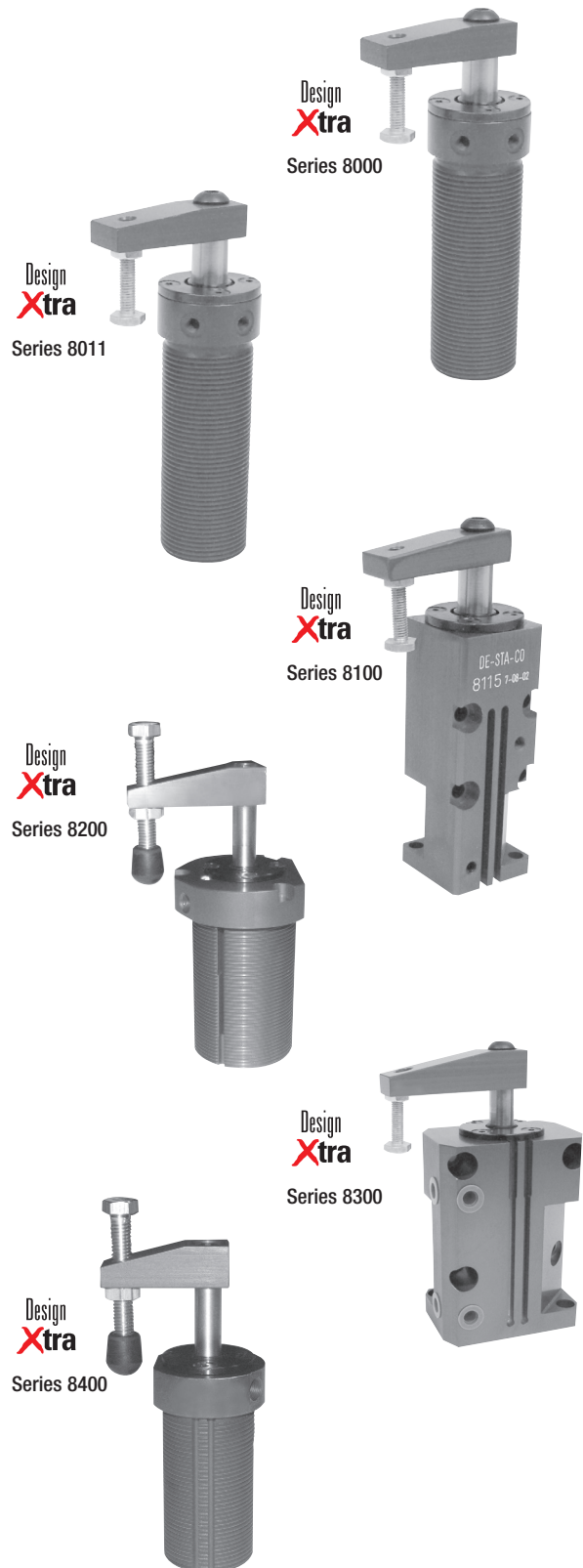
Quick, Clean & Economical

DE-STA-CO's new 8400 Series joins the 8000/8100 and 8200/8300 Series, rounding out a versatile, time-saving line of swing cylinders. Ideal for installations where hydraulic power is not suitable, these pneumatic power clamps from DE-STA-CO have all the same quick-acting advantages and can produce up to 160 lbs. clamping force from shop line air pressure (see chart). These double-acting clamps are red anodized aluminum with either a threaded body that permits three mounting options, or a block-style mounting body that permits three mounting options, or a block-style mounting body.

Intended for quick clamping in secondary manufacturing operations on metallic or non-metallic products. These clamps offer a combination of features that makes them uniquely adaptable to such applications, as welding and assembly operations. Spindles are included.

Every DE-STA-CO pneumatic swing clamp now is equipped with sensing capabilities as a standard feature. See page 12.7 for details.

- 90° swing of clamping arm minimizes obstruction in the workspace and makes loading or unloading of parts easy.
- 1/2" clamping stroke (vertical arm travel) for Series 8200/8300 and 3/8" clamping stroke for Series 8000/8100 allows wide variation in part size. The clamp adjusts automatically on every cycle.
- New Series 8400, designed for mid-range applications, features 1/2" clamping stroke.
- A new series of straight-line cylinder clamps is also now available. These new pneumatic clamps operate in only straight-line of vertical clamping strokes – the arms do not swing, and the piston rods do not rotate. Models 8011 and 8111 have strokes of .84", while Models 8211, 8311 and 8411 have strokes of 1.25".
- Improved design features additional mounting screws to more effectively secure clamp housing.
- Internal piston design features new seal technology.
- Quick swing-and-clamp movement reduces cycle times in your operation.
- Pneumatic operation is economical and clean, and allows precise control and monitoring of the clamping force.
- Multiple mounting options allow the clamp to be adapted to the fixture for the best use of space and to minimize installation time.
- Clamping force is adjustable across a wide range: 20 lbs. to 160 lbs. Clamp exerts just the force your operation requires without deforming delicate parts.
- Broad operating temperature range of -40° F to 250° F allows installations in extreme environments.
- Multiple mounting and arm options allow the clamp to be adapted to the fixture for the best use of space and to minimize installation time.
- Maximum inlet pressure 130 PSIG.



Note: See pages 12.6 & 9.1 for accessories

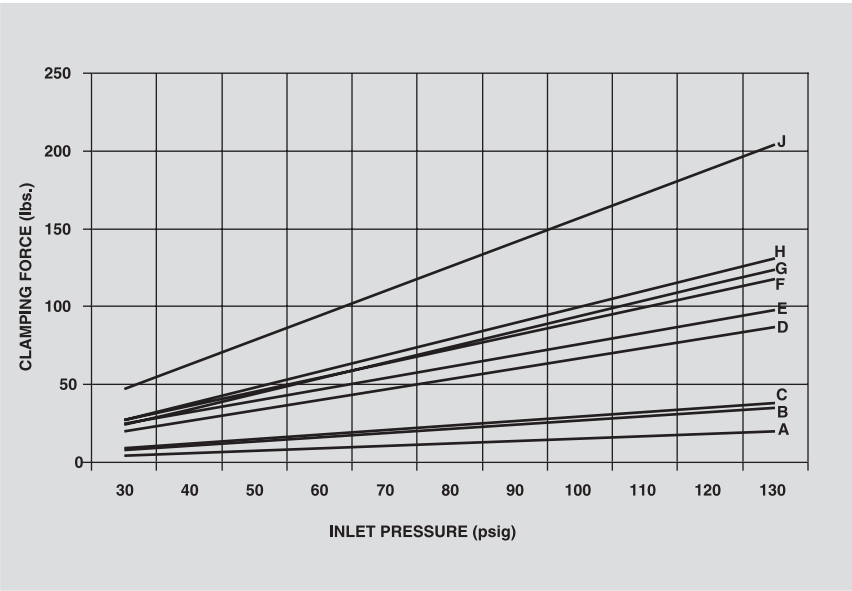
Model Series 8000, 8100, 8200, 8300, 8400

Cylinder Specifications

Series no.	Bore [in.]	Red [in.]	Stroke [in.]	Effective Clamping Area [sq. in.]	Effective Unclamping Area [sq. in.]	Clamp Volume [cu. in.]	Unclamp Volume [cu. in.]
8000	0.750	0.438	0.85	0.291	0.442	0.25	0.38
8100	0.750	0.438	0.85	0.291	0.442	0.25	0.38
8200	1.500	0.500	1.28	1.571	1.767	2.01	2.26
8300	1.500	0.500	1.28	1.571	1.767	2.01	2.26
8400	1.188	0.500	1.28	0.911	1.108	1.17	1.42

Pneumatic Swing Cylinder Clamping Forces

Series no.	Arm Style		
	Long Arm	Standard Arm	T-Arm
8000	A	B	C
8100	A	B	C
8200	G	H	J
8300	G	H	J
8400	D	E	F



Application Note:

When using a T-Arm, the clamping force at each end of the arm is equal if the arm length of each end is equal.

Force Data (lbs.)

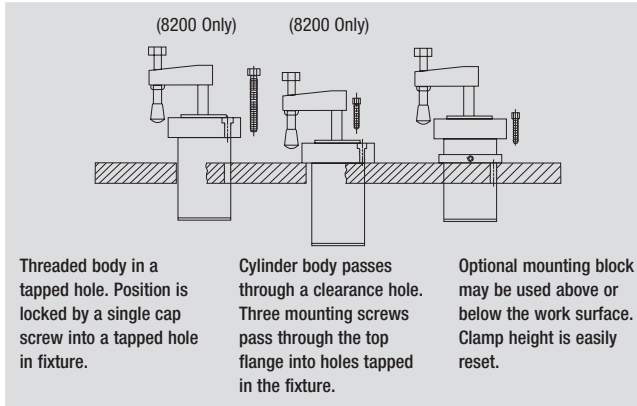
PSI	8000/8100 with Long Arm	8000/8100 with Standard Arm	8000/8100 Straight Pull or Tee Arm	8400 with Long Arm	8400 with Standard Arm	8400 Straight Pull or Tee Arm	8200/8300 with Long Arm	8200/8300 with Standard Arm	8200/8300 Straight Pull or Tee Arm
	A	B	C	D	E	F	G	H	J
30	4	8	9	20	25	27	24	27	47
40	5	10	12	29	32	36	34	38	63
50	7	13	15	34	41	46	44	48	79
60	8	16	17	42	47	55	55	57	94
70	10	18	20	49	55	64	65	67	110
80	12	22	23	55	62	73	75	80	126
90	13	25	26	60	68	82	83	89	141
100	15	27	29	65	76	91	93	99	157
110	17	30	32	74	82	100	105	112	173
120	18	32	35	80	91	109	114	121	189
130	20	35	38	87	98	118	124	131	204

Model Series 8000, 8100, 8200, 8300, 8400

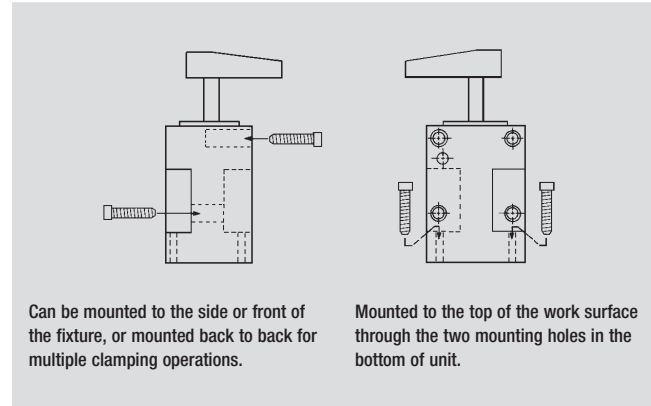
Swing Cylinder Rotation: Frame of reference for specifying rotation is the clamp arm viewed from above during the clamping stroke. A right-hand unit rotates clockwise and then clamps down; a left-hand unit rotates counter-clockwise, and then clamps down.

Note: Tolerance on arm swing position is $\pm 3^\circ$.

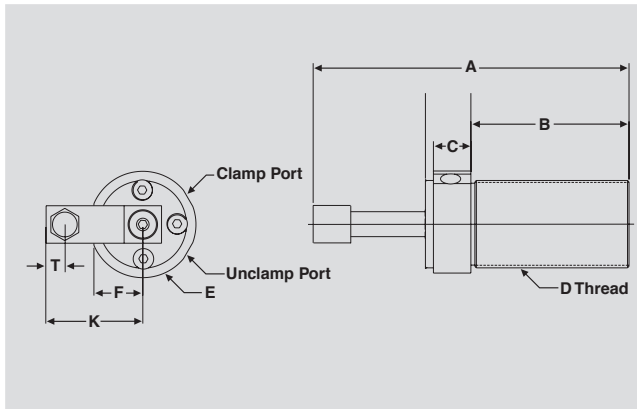
8000, 8200, 8400 Mounting Options



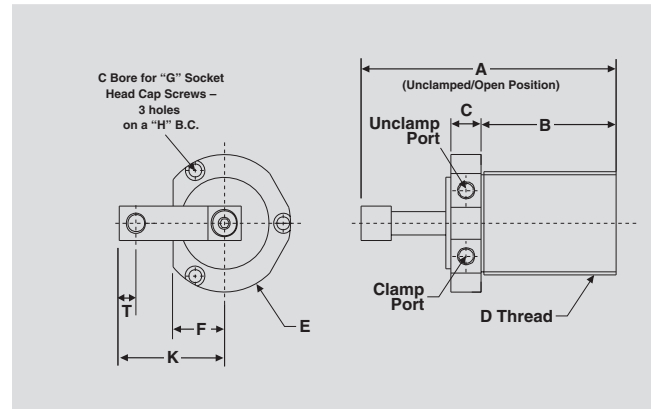
8100, 8300 Mounting Options



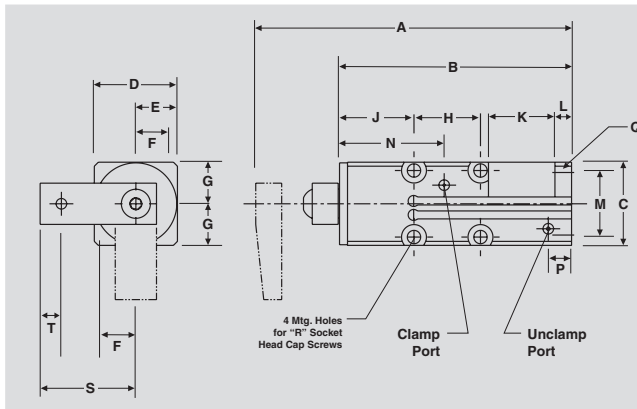
SERIES 8000, 8400



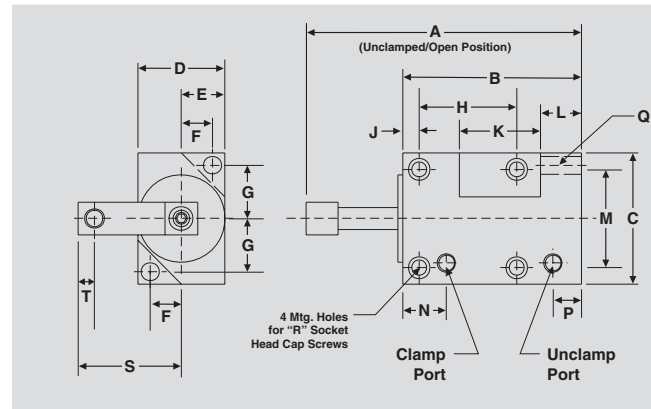
SERIES 8200



SERIES 8100



SERIES 8300



Series no.	Dimensions																		Port Size
	A	B	C	D	E	F	G	H	J	K	L	M	N	P	Q	R	S	T	
8000	4.88	2.87	0.62	1 1/8-16	1.25	—	—	—	—	1.44	—	—	—	—	—	—	—	0.31	#10-32
8100	4.88	3.50	1.25	1.25	0.53	0.47	0.47	1.00	1.12	1.00	0.25	1.00	1.57	0.35	0.20	#10	1.44	0.31	#10-32
8200	6.36	3.36	0.87	2 1/4-12	3.00	1.16	0.25	2.66	—	2.38	—	—	—	—	—	—	—	0.38	1/8 NPT
8300	6.36	4.27	3.00	2.00	1.00	0.72	1.22	2.25	0.53	2.37	0.44	2.25	1.16	0.65	0.40	0.33	2.38	0.38	1/8 NPT
8400	6.14	3.17	0.88	1 3/4-12	2.13	0.98	—	—	—	1.94	—	—	—	—	—	—	—	0.38	1/8 NPT

Model Series 8000, 8100, 8200, 8300, 8400

Model no.	EDP no.	Swing	Arm Supplied	Spindle Supplied	Travel Dur. Rotation	Vertical Clamp Stroke	Maximum Arm Length	Weight [lbs]
8011 ▲	58014	NONE	801528	305203	–	0.84	–	1.00
8015	58015	RH	801528	305203	0.466	0.38	2.25	1.00
8016	58016	LH	801528	305203	0.466	0.38	2.25	1.00
8015-LA*	58017	RH	OPTIONAL	–	0.466	0.38	2.25	1.00
8016-LA*	58018	LH	OPTIONAL	–	0.466	0.38	2.25	1.00
8111 ▲	58111	NONE	801528	305203	–	0.84	–	1.00
8115	58115	RH	801528	305203	0.466	0.38	2.25	1.00
8116	58116	LH	801528	305203	0.466	0.38	2.25	1.00
8115-LA*	58117	RH	OPTIONAL	–	0.466	0.38	2.25	1.00
8116-LA*	58118	LH	OPTIONAL	–	0.466	0.38	2.25	1.00
8211 ▲	58211	NONE	82512	485203-AL	–	1.25	–	2.00
8215	58215	RH	82512	485203-AL	0.75	0.50	3.00	2.00
8216	58216	LH	82512	485203-AL	0.75	0.50	3.00	2.00
8215-LA*	58217	RH	OPTIONAL	–	0.75	0.50	3.00	2.00
8216-LA*	58218	LH	OPTIONAL	–	0.75	0.50	3.00	2.00
8311 ▲	58311	NONE	82512	485203-AL	–	1.25	–	2.00
8315	58315	RH	82512	485203-AL	0.75	0.50	3.00	2.00
8316	58316	LH	82512	485203-AL	0.75	0.50	3.00	2.00
8315-LA*	58317	RH	OPTIONAL	–	0.75	0.50	3.00	2.00
8316-LA*	58318	LH	OPTIONAL	–	0.75	0.50	3.00	2.00
8411 ▲	58412	NONE	82512	485203-AL	–	1.25	–	1.50
8415	58415	RH	82512	485203-AL	0.75	0.50	2.31	1.50
8416	58416	LH	82512	485203-AL	0.75	0.50	2.31	1.50
8415-LA*	58414	RH	OPTIONAL	–	0.75	0.50	2.31	1.50
8416-LA*	58420	LH	OPTIONAL	–	0.75	0.50	2.31	1.50



Design
Xtra

Series 8000



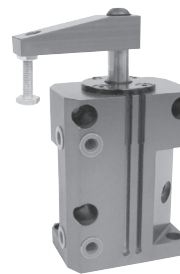
Design
Xtra

Series 8100



Design
Xtra

Series 8200



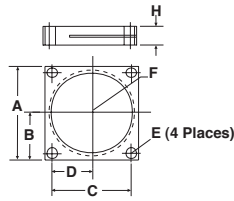
Design
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Series 8300



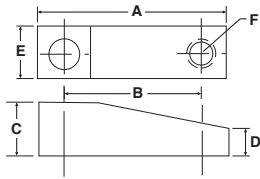
Design
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Series 8400



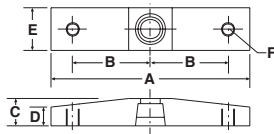
Mounting Block

Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	H
801553	58033	8000	1.38	0.69	1.08	0.54	0.20	1-1/8-16	0.50
821553	58233	8200	2.50	1.25	2.12	1.06	0.28	2-1/4-12	0.50
841550	58418	8400	2.00	1.00	1.60	0.80	0.28	1-3/4-12	0.50



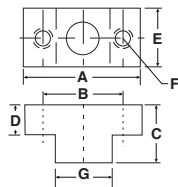
Arm

Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	G
801528	58058	8000, 8100	1.75	1.12	0.39	0.27	0.62	10-32	—
801529	58059	8000, 8100	2.87	2.25	0.39	0.27	0.62	10-32	—
821512	58252	8200, 8300	2.75	2.00	0.75	0.37	0.75	3/8-16	—
821513	58253	8200, 8300	3.75	3.00	0.75	0.37	0.75	3/8-16	—
841512	58417	8400	2.31	1.56	0.75	0.37	0.75	3/8-16	—



T-Arm

Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	G
801530	58053	8000, 8100	2.88	1.12 (2)	0.39	0.27 (2)	0.62	10-32 (2)	—
801531	58051	8000, 8100	5.12	2.25 (2)	0.39	0.27 (2)	0.62	10-32 (2)	—
821554	58254	8200, 8300	4.75	2.00 (2)	0.75	0.37 (2)	0.75	3/8-16 (2)	—
821555	58251	8200, 8300	6.75	3.00 (2)	0.75	0.37 (2)	0.75	3/8-16 (2)	—



Blank Arm

Part no.	EDP no.	Use With Series no.	A	B	C	D	E	F	G
801532	58052	8000, 8100	1.37	1.00	0.39	0.25	0.62	10-32 (2)	0.62
821556	58256	8200, 8300	1.50	1.06	0.75	0.37	0.75	1/4-20 (2)	0.75

Models 8215-S0-25, 8215-S0-27

Design
Xtra With Standard Sensing Feature

Every DE-STA-CO pneumatic swing cylinder is now supplied with sensing functionality as a standard feature. For added safety and control, DE-STA-CO now makes it easy for users of its pneumatic swing cylinders to determine exactly when these clamps are fully open and fully closed. To sense the clamp's open and closed positions, small, low voltage Hall Effect switches are installed in a groove machined into the side of the cylinder body. The switches are actuated by a

magnetic piston ring as the cylinder's piston moves up and down. The open or closed condition of the switches is then read by programmable logic controller (PLC) or other electronic device. All you need to do is determine what switch is right for the application. Order one switch if you want to sense only the open or closed position. Order two switches to sense both positions.

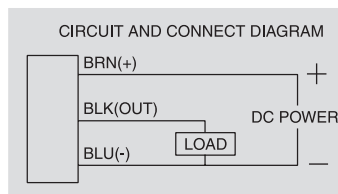
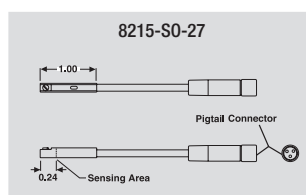
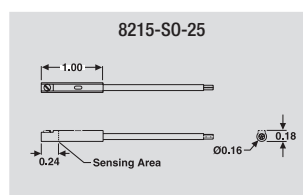
Model no.	EDP no.	NPN/PNP	Lead Length
8215-S0-25	58407	PNP	3 Meters (118 inch cable)
8215-S0-27	58423	PNP	6" with pigtail connector

Switching Logic	Normally Open
Output	PNP Current Sourcing
Operating Voltage	5~28 VDC
Switching Current	50 mA max
Power Rating	1.5 Watts – WARNING: Never exceed rating (Watt = Voltage x Amperage). Permanent damage to sensor will occur.
Voltage Drop	1.2V@25 mA max
Current Consumption	9 mA@24 VDC max
Leakage Current	0.01 mA max
LED Indicator	Green
Cable	Robotic Grade, abrasion resistant polyurethane (PUR) jacket, PVC insulation
Operating Frequency	1000Hz
Magnet Requirement	50 Gauss parallel
Temperature Range	14 to 158°F (-10 to +70°C)
Enclosure Classification	IP 67 (NEMA 6)
Protection Circuit	Reverse Polarity, Surge Suppression

Model 8315 with sensor



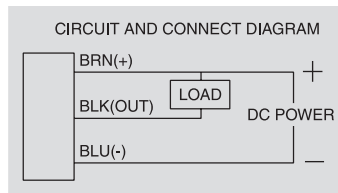
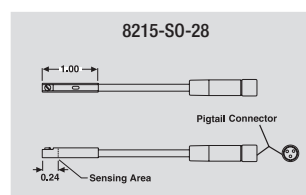
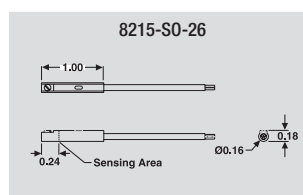
Model 8215-S0-27



Models 8215-S0-26, 8215-S0-28

Model no.	EDP no.	NPN/PNP	Lead Length
8215-S0-26	58408	NPN	3 Meters (118 inch cable)
8215-S0-28	58424	NPN	6" with pigtail connector

Switching Logic	Normally Open
Output	NPN Current Sourcing
Operating Voltage	5~28 VDC
Switching Current	50 mA max
Power Rating	1.5 Watts – WARNING: Never exceed rating (Watt = Voltage x Amperage). Permanent damage to sensor will occur.
Voltage Drop	0.5V@25 mA max
Current Consumption	7 mA@24 VDC max
Leakage Current	0.01 mA max
LED Indicator	Red
Cable	Robotic Grade, abrasion resistant polyurethane (PUR) jacket, PVC insulation
Operating Frequency	1000Hz
Magnet Requirement	50 Gauss parallel
Temperature Range	14 to 158°F (-10 to +70°C)
Enclosure Classification	IP 67 (NEMA 6)
Protection Circuit	Reverse Polarity, Surge Suppression



Warning: Reverse wiring will destroy solid state electronic components. Presence of external magnetic/electromagnetic field may interfere with the operation of the sensor.