



EG-Series

Switches and Sensors

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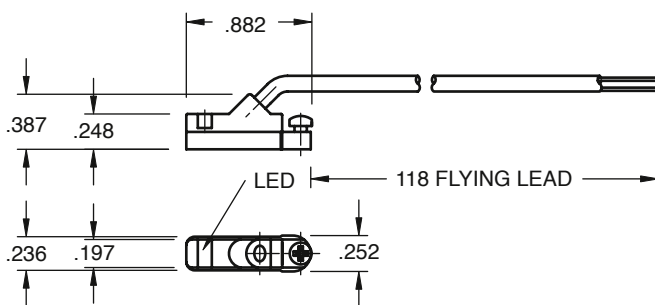


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AirCylindersDirect.com is proud to offer the **EG Series** switch. The **EG Series** switch is available in Reed and both PNP and NPN electronic types. All types are available with either a 3m (118") flying lead or 8mm DIN nano cable. The electronic switches feature magnetoresistive-sensing technology. Another advantage the **EG Series** electronic switches possess is reverse polarity protection to prevent damage from miswiring the sensors.

Reed Switch (AC/DC NO), flying lead – E-RSS02



Sensing Data

Ambient temperature range T_a	(°F/°C)	-4 to 176 (-20 to 80)
Frequency of operating cycles f at U_o	(kHz)	0.5
Turn on time t	(ms)	≤ 0.25
Turn off time t	(ms)	0.03
LED function indication		yes

Electrical Data

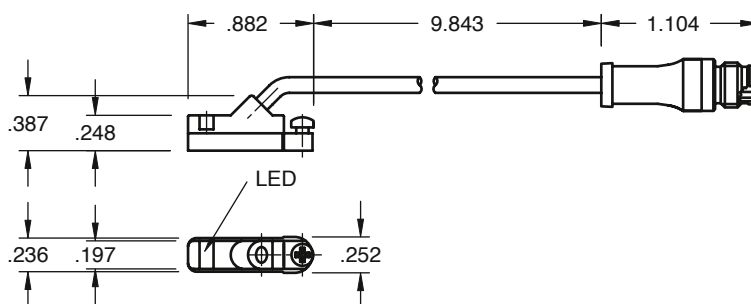
Rated operational voltage U_o	(V)	3...130 AC/DC
Supply voltage U_o	(V)	3...130 AC/DC
Voltage drop U_o at I_o Stat./dyn.	(V)	3.5
Rated insulation voltage U_i	(V)	2750 DC (EN 60335-1)
Rated supply frequency	(Hz)	AC/DC
Rated operational current I_o	(mA)	50 (10W max.)
No-load supply current I_o at U_o d./und.	(mA)	0
Observe polarity for correct LED function		

Mechanical Data

Housing material	Polyamide
Material of sensing face	Polyamide
Connection	PVC cable
Degree of Protection	IP 67
Rated shock: half-sinus, 50g, 11 ms	
Rated vibration environment: 10g, 10...2000 Hz, 90 min	



Reed Switch (AC/DC NO), 8mm connector – E-RSQ02



Sensing Data

Ambient temperature range T_a	(°F/°C)	-4 to 176 (-20 to 80)
Frequency of operating cycles f at U_o	(kHz)	0.5
Turn on time t	(ms)	≤ 0.25
Turn off time t	(ms)	0.03
LED function indication		yes

Electrical Data

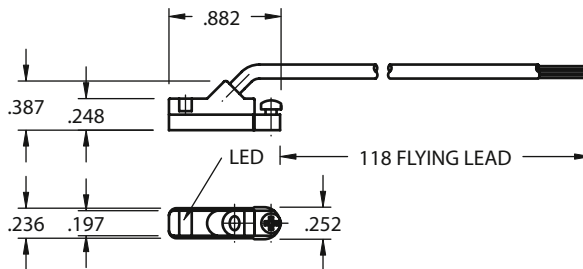
Rated operational voltage U_o	(V)	3...130 AC/DC
Supply voltage U_o	(V)	3...130 AC/DC
Voltage drop U_o at I_o Stat./dyn.	(V)	3.5
Rated insulation voltage U_i	(V)	2750 DC (EN 60335-1)
Rated supply frequency	(Hz)	AC/DC
Rated operational current I_o	(mA)	50 (10W max.)
No-load supply current I_o at U_o d./und.	(mA)	0
Observe polarity for correct LED function		

Mechanical Data

Housing material	Polyamide
Material of sensing face	Polyamide
Connection	PVC cable
Degree of Protection	IP 67
Rated shock: half-sinus, 50g, 11 ms	
Rated vibration environment: 10g, 10...2000 Hz, 90 min	

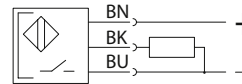


Electronic Switch (PNP NO), flying lead – E-HPNPS31



Sensing Data

Ambient temperature range α	(°F/°C)	-13 to +158 (-25 to +70)
Temperature drift	(% of)	$\leq 0.3\%/^{\circ}\text{C}$
Frequency of operating cycles f at U_e	(kHz)	10
Turn on time t	(ms)	.05
turn off time t	(ms)	.05
Utilization categories		DC13
Function–/supply voltage indication		YES



Electrical Data

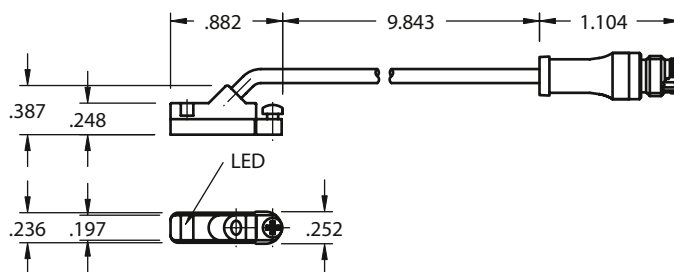
Rated operational voltage U_o	(V)	24 DC
Supply voltage U_s	(V)	10...30 DC
incl. ripple	(% of U_o)	15
Voltage drop U_d at I_o Stat./dyn.	(V)	1/-
Rated insulation voltage U_i	(V)	75 AC
Rated supply frequency	(Hz)	DC
Rated operational current I_o	(mA)	200
No-load supply current I_o at U_o d./und.	(mA)	25/13
Protected against polarity reversal		YES

Mechanical Data

Housing material	Polyamide
Material of sensing face	Polyamide
Connection	PVC cable
Degree of Protection	IP 67
Rated shock: half-sinus, 30 g, 11 ms	
Rated vibration environment: 55 Hz, 1mm amplitude, 3 x 30	

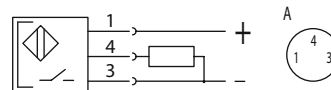


Electronic Switch (PNP NO), 8mm connector – E-HPNPQ31



Sensing Data

Ambient temperature range α	(°F/°C)	-13 to +158 (-25 to +70)
Temperature drift	(% of S_o)	$\leq 0.3\%/^{\circ}\text{C}$
Frequency of operating cycles f at U_e	(kHz)	10
Turn on time t	(ms)	.05
turn off time t	(ms)	.05
Utilization categories		DC13
Function–/supply voltage indication		YES



Electrical Data

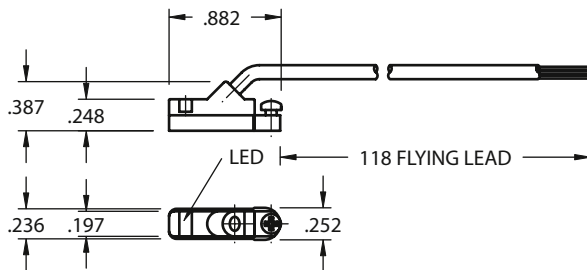
Rated operational voltage U_o	(V)	24 DC
Supply voltage U_s	(V)	10...30 DC
incl. ripple	(% of U_o)	15
Voltage drop U_d at I_o Stat./dyn.	(V)	1/-
Rated insulation voltage U_i	(V)	75 AC
Rated supply frequency	(Hz)	DC
Rated operational current I_o	(mA)	200
No-load supply current I_o at U_o d./und.	(mA)	25/13
Protected against polarity reversal		YES

Mechanical Data

Housing material	Polyamide
Material of sensing face	Polyamide
Connection	PVC cable
Degree of Protection	IP 67
Rated shock: half-sinus, 30 g, 11 ms	
Rated vibration environment: 55 Hz, 1mm amplitude, 3 x 30	

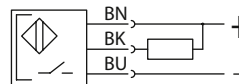


Electronic Switch (NPN NO), flying lead – E-HNPNS32



Sensing Data

Ambient temperature range Δ	(°F/°C)	-13 to +158 (-25 to +70)
Temperature drift	(% of S_r)	$\leq 0.3\%/^{\circ}\text{C}$
Frequency of operating cycles f at U_o	(kHz)	10
Turn on time t	(ms)	.05
Turn off time t	(ms)	.05
Utilization categories		DC13
Function--/supply voltage indication		YES



Electrical Data

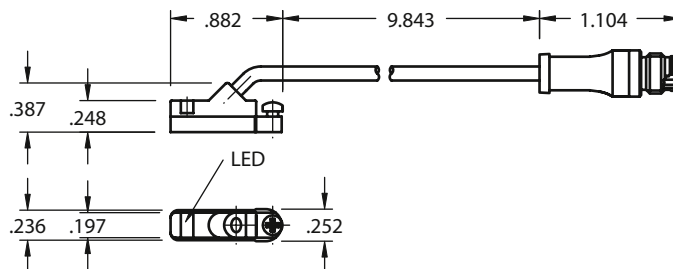
Rated operational voltage U_o	(V)	24 DC
Supply voltage U_B	(V)	10...30 DC
incl. ripple	(% of U_o)	15
Voltage drop U_d at I_o Stat./dyn.	(V)	1/-
Rated insulation voltage U_i	(V)	75 AC
Rated supply frequency	(Hz)	DC
Rated operational current I_o	(mA)	200
No-load supply current I_o at U_o d./und.	(mA)	25/13
Protected against polarity reversal		YES

Mechanical Data

Housing material	Polyamide
Material of sensing face	Polyamide
Connection	PVC cable
Degree of Protection	IP 67
Rated shock: half-sinus, 30 g, 11 ms	
Rated vibration environment: 55 Hz, 1mm amplitude, 3 x 30	

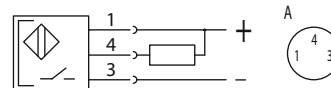


Electronic Switch (NPN NO), 8mm connector – E-HNPNQ32



Sensing Data

Ambient temperature range Δ	(°F/°C)	-13 to +158 (-25 to +70)
Temperature drift	(% of S_r)	$\leq 0.3\%/^{\circ}\text{C}$
Frequency of operating cycles f at U_o	(kHz)	10
Turn on time t	(ms)	.05
Turn off time t	(ms)	.05
Utilization categories		DC13
Function--/supply voltage indication		YES



Electrical Data

Rated operational voltage U_o	(V)	24 DC
Supply voltage U_B	(V)	10...30 DC
incl. ripple	(% of U_o)	15
Voltage drop U_d at I_o Stat./dyn.	(V)	1/-
Rated insulation voltage U_i	(V)	75 AC
Rated supply frequency	(Hz)	DC
Rated operational current I_o	(mA)	200
No-load supply current I_o at U_o d./und.	(mA)	25/13
Protected against polarity reversal		YES

Mechanical Data

Housing material	Polyamide
Material of sensing face	Polyamide
Connection	PVC cable
Degree of Protection	IP 67
Rated shock: half-sinus, 30 g, 11 ms	
Rated vibration environment: 55 Hz, 1mm amplitude, 3 x 30	



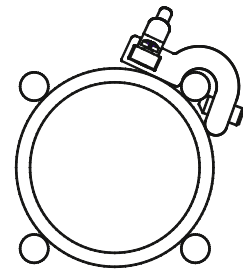
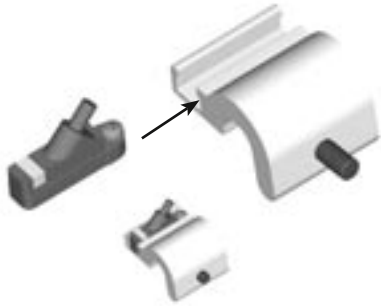
Switch Mounting Information

EN Series Cylinders and Switch Mounting

1. Loosen Phillips head screw

2. Attach bracket to tie rod.

3. Bracket should be turned so that the switch is as close to the tube as possible.

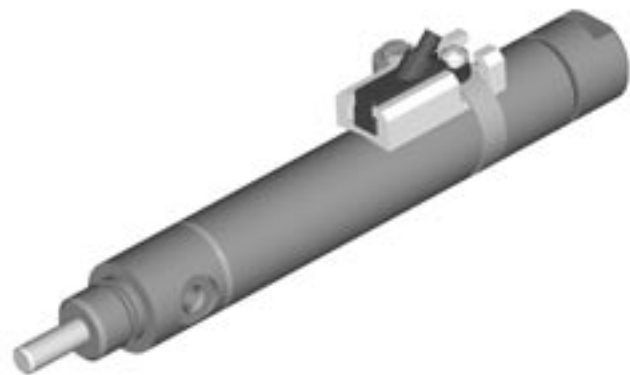


NR Series Cylinders with Switch Bracket

(Short Bracket Shown)

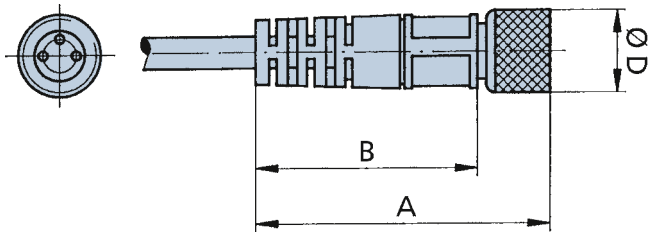
1. Loosen band clamp and slide over both the bracket and cylinder.

2. Tighten band clamp, loosen Phillips head screw, insert switch into bracket, and then tighten.

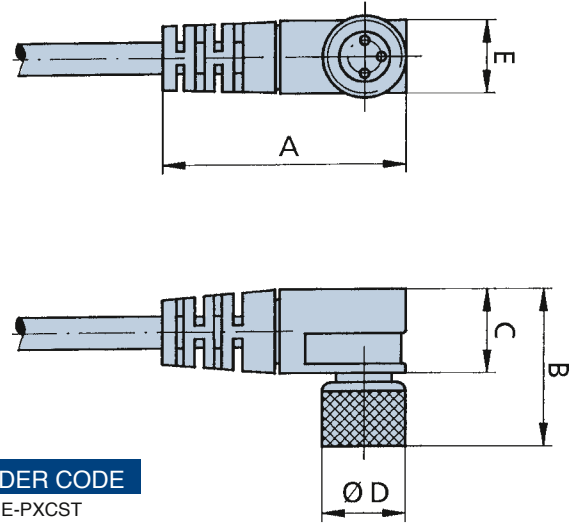


Female Connectors for Reed Switches and Hall Effect Sensors

Straight Type



Elbow Type



Dimensions (mm)

TYPE	A	B	C	D	E	ORDER CODE
Straight, 5 m Cable (3 x 0.25 mm ²)	32.3	24.4	-	9	-	E-PXCST
Elbow, 5 m Cable (3 x 0.25 mm ²)	26.3	17.1	9.2	9	8	E-PXC90

EG Series Switch Application Chart Indicating Mounting Kit Part Numbers

PRODUCT	E-RSS02	E-RSQ20	E-HPNPS31	E-HPNPQ31	E-HNPNS32	E-HNPNQ32
Cylinders						
EN Series Tie Rod 1-1/2" to 2-1/2" Bore	E-N199-1017	E-N199-1017	E-N199-1017	E-N199-1017	E-N199-1017	E-N199-1017
EN Series Tie Rod 3-1/4" to 4" Bore	E-N199-1018	E-N199-1018	E-N199-1018	E-N199-1018	E-N199-1018	E-N199-1018
EN Series Tie Rod 5" to 6" Bore	E-N199-1019	E-N199-1019	E-N199-1019	E-N199-1019	E-N199-1019	E-N199-1019
NR Series Short Bracket Kit (>1" stroke) 9/16" Bore	E-N199-1003	E-N199-1003	E-N199-1003	E-N199-1003	E-N199-1003	E-N199-1003
NR Series Long Bracket Kit (<1" stroke) 9/16" Bore	E-N199-1010	E-N199-1010	E-N199-1010	E-N199-1010	E-N199-1010	E-N199-1010
NR Series Short Bracket Kit (>1" stroke) 3/4" Bore	E-N199-1004	E-N199-1004	E-N199-1004	E-N199-1004	E-N199-1004	E-N199-1004
NR Series Long Bracket Kit (<1" stroke) 3/4" Bore	E-N199-1011	E-N199-1011	E-N199-1011	E-N199-1011	E-N199-1011	E-N199-1011
NR Series Short Bracket Kit (>1" stroke) 7/8" to 1-1/4" Bore	E-N199-1005	E-N199-1005	E-N199-1005	E-N199-1005	E-N199-1005	E-N199-1005
NR Series Long Bracket Kit (<1" stroke) 7/8" to 1-1/4" Bore	E-N199-1012	E-N199-1012	E-N199-1012	E-N199-1012	E-N199-1012	E-N199-1012
NR Series Short Bracket Kit (>1" stroke) 1-1/2" Bore	E-N199-1006	E-N199-1006	E-N199-1006	E-N199-1006	E-N199-1006	E-N199-1006
NR Series Long Bracket Kit (<1" stroke) 1-1/2" Bore	E-N199-1013	E-N199-1013	E-N199-1013	E-N199-1013	E-N199-1013	E-N199-1013
NR Series Short Bracket Kit (>1" stroke) 1-3/4" to 2" Bore	E-N199-1007	E-N199-1007	E-N199-1007	E-N199-1007	E-N199-1007	E-N199-1007
NR Series Long Bracket Kit (<1" stroke) 1-3/4" to 2" Bore	E-N199-1014	E-N199-1014	E-N199-1014	E-N199-1014	E-N199-1014	E-N199-1014
NR Series Short Bracket Kit (>1" stroke) 2-1/2" Bore	E-N199-1008	E-N199-1008	E-N199-1008	E-N199-1008	E-N199-1008	E-N199-1008
NR Series Long Bracket Kit (<1" stroke) 2-1/2" Bore	E-N199-1015	E-N199-1015	E-N199-1015	E-N199-1015	E-N199-1015	E-N199-1015
NR Series Short Bracket Kit (>1" stroke) 3" Bore	E-N199-1009	E-N199-1009	E-N199-1009	E-N199-1009	E-N199-1009	E-N199-1009
NR Series Long Bracket Kit (<1" stroke) 3" Bore	E-N199-1016	E-N199-1016	E-N199-1016	E-N199-1016	E-N199-1016	E-N199-1016

Note that the long bracket holds 2 switches and the short bracket will only hold 1 switch.

