

Encoders

BOURNS' 12MM INCREMENTAL ENCODERS

Specifications:

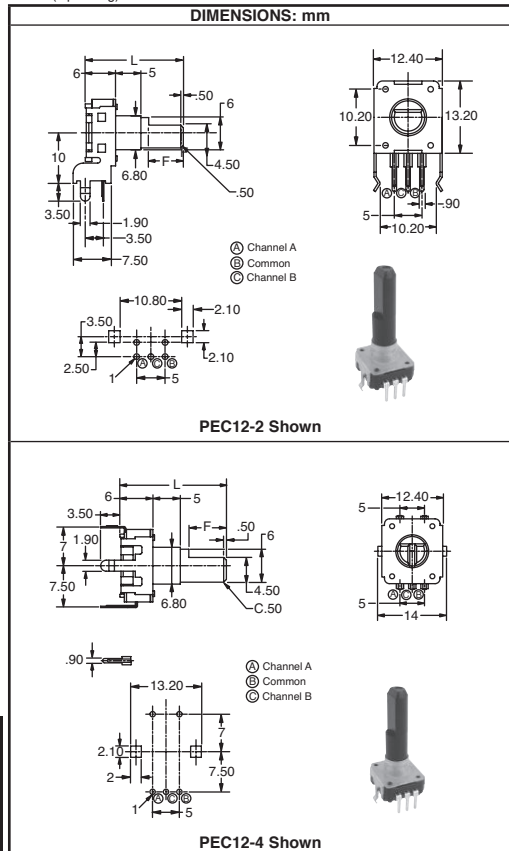
- Electrical-**
 - Output: 2-bit gray code
 - Closed Circuit Resistance: 3Ω max.
 - Contact Rating: 1mA @ 5VDC
 - Insulation Resistance: 10MΩ @ 250VDC
- Environmental-**
 - Operating Temperature Range: -30°C to +70°C (-22°F to +185°F)
 - Rotational Life: 30,000 cycles min.
 - Switch Life: 20,000 cycles min.
 - IP Rating: IP 40
- Switch-**
 - Switch Type: Contact Push ON Momentary SPST
 - Power Rating (Resistive Load): 10mA @ 5VDC
 - Switch Travel: 0.5±0.4-0.3mm
 - Switch Actuation Force: 360±153/102gf (5±2.1/-1.4oz.-1in.)

Features:

- Compact design, long life and high reliability
- Low cost compared to optical type encoders

Applications:

- Level control, tuning and timer settings in:
 - Audio-visual equipment
 - Consumer electric appliances
 - Radars
 - Musical instrumentation
 - Communications equipment



PEC12 Series

MOUSER STOCK NO.	Bourns Part No.	Switch	Detents	Shaft Length	Terminal Config	Price Each			
						1	25	50	100
652-PEC12-2017FS0024	PEC12-2017F-S0024	Y	0	17	2	1.39	1.02	.94	.90
652-PEC12-2020FS0012	PEC12-2020F-S0012	Y	0	20	2	1.39	1.02	.94	.90
652-PEC12-2025FS0024	PEC12-2025F-S0024	Y	0	25	2	1.39	1.02	.94	.90
652-PEC12-2117FN0012	PEC12-2117F-N0012	N	12	17	2	1.05	.78	.71	.68
652-PEC12-2117FN0024	PEC12-2117F-N0024	N	12	17	2	1.05	.78	.71	.68
652-PEC12-2117FS0012	PEC12-2117F-S0012	Y	12	17	2	1.39	1.02	.94	.90
652-PEC12-2120FN0012	PEC12-2120F-N0012	N	12	20	2	1.05	.78	.71	.68
652-PEC12-2120FN0024	PEC12-2120F-N0024	N	12	20	2	1.05	.78	.71	.68
652-PEC12-2120FS0012	PEC12-2120F-S0012	Y	12	20	2	1.39	1.02	.94	.90
652-PEC12-2125FN0012	PEC12-2125F-N0012	N	12	25	2	1.05	.78	.71	.68
652-PEC12-2125FN0024	PEC12-2125F-N0024	N	12	25	2	1.05	.78	.71	.68
652-PEC12-2125FS0024	PEC12-2125F-S0024	Y	12	25	2	1.39	1.02	.94	.90
652-PEC12-2130FS0012	PEC12-2130F-S0012	Y	12	30	2	1.39	1.02	.94	.90
652-PEC12-2217FN0012	PEC12-2217F-N0012	N	24	17	2	1.05	.78	.71	.68
652-PEC12-2217FN0024	PEC12-2217F-N0024	N	24	17	2	1.05	.78	.71	.68
652-PEC12-2217FS0024	PEC12-2217F-S0024	Y	24	17	2	1.39	1.02	.94	.90
652-PEC12-2220FN0024	PEC12-2220F-N0024	N	24	20	2	1.05	.78	.71	.68
652-PEC12-2220FS0024	PEC12-2220F-S0024	Y	24	20	2	1.39	1.02	.94	.90
652-PEC12-2225FN0024	PEC12-2225F-N0024	N	24	25	2	1.05	.78	.71	.68
652-PEC12-2225FS0024	PEC12-2225F-S0024	Y	24	25	2	1.39	1.02	.94	.90
652-PEC12-2230FS0024	PEC12-2230F-S0024	Y	24	30	2	1.39	1.02	.94	.90
652-PEC12-4017FN0024	PEC12-4017F-N0024	N	0	17	4	1.05	.78	.71	.68
652-PEC12-4017FS0024	PEC12-4017F-S0024	Y	0	17	4	1.39	1.02	.94	.90
652-PEC12-4020FN0012	PEC12-4020F-N0012	N	0	20	4	1.05	.78	.71	.68
652-PEC12-4020FN0024	PEC12-4020F-N0024	N	0	20	4	1.05	.78	.71	.68
652-PEC124020F-S0012	PEC12-4020F-S0012	Y	0	20	4	1.39	1.02	.94	.90
652-PEC12-4020FS0024	PEC12-4020F-S0024	Y	0	20	4	1.39	1.02	.94	.90
652-PEC124025F-N0012	PEC12-4025F-N0012	N	0	25	4	1.05	.78	.71	.68
652-PEC12-4025FN0024	PEC12-4025F-N0024	N	0	25	4	1.05	.78	.71	.68
652-PEC12-4025FS0024	PEC12-4025F-S0024	Y	0	25	4	1.39	1.02	.94	.90
652-PEC124030F-S0012	PEC12-4030F-S0012	Y	0	30	4	1.39	1.02	.94	.90
652-PEC12-4117FN0012	PEC12-4117F-N0012	N	12	17	4	1.05	.78	.71	.68
652-PEC12-4117FS0012	PEC12-4117F-S0012	Y	12	17	4	1.39	1.02	.94	.90
652-PEC12-4120FN0012	PEC12-4120F-N0012	N	12	20	4	1.05	.78	.71	.68
652-PEC12-4120FN0024	PEC12-4120F-N0024	N	12	20	4	1.05	.78	.71	.68
652-PEC12-4120FS0012	PEC12-4120F-S0012	Y	12	20	4	1.39	1.02	.94	.90
652-PEC12-4120FS0024	PEC12-4120F-S0024	Y	12	20	4	1.39	1.02	.94	.90
652-PEC12-4125FN0012	PEC12-4125F-N0012	N	12	25	4	1.05	.78	.71	.68
652-PEC12-4125FN0024	PEC12-4125F-N0024	N	12	25	4	1.05	.78	.71	.68
652-PEC12-4125FS0012	PEC12-4125F-S0012	Y	12	25	4	1.39	1.02	.94	.90
652-PEC12-4125FS0024	PEC12-4125F-S0024	Y	12	25	4	1.39	1.02	.94	.90
652-PEC12-4130FS0012	PEC12-4130F-S0012	Y	12	30	4	1.39	1.02	.94	.90
652-PEC12-4217FN0024	PEC12-4217F-N0024	N	24	17	4	1.05	.78	.71	.68
652-PEC124217F-S0012	PEC12-4217F-S0012	Y	24	17	4	1.39	1.02	.94	.90
652-PEC12-4217FS0024	PEC12-4217F-S0024	Y	24	17	4	1.39	1.02	.94	.90
652-PEC12-4220FN0024	PEC12-4220F-N0024	N	24	20	4	1.05	.78	.71	.68
652-PEC12-4220FS0012	PEC12-4220F-S0012	Y	24	20	4	1.39	1.02	.94	.90
652-PEC12-4220FS0024	PEC12-4220F-S0024	Y	24	20	4	1.39	1.02	.94	.90
652-PEC12-4225F-N24	PEC12-4225F-N0024	N	24	25	4	1.24	.93	.71	.68
652-PEC12-4225F-S24	PEC12-4225F-S0024	Y	24	25	4	1.39	1.02	.74	.70
652-PEC124230F-N0024	PEC12-4230F-N0024	N	24	30	4	1.05	.93	.71	.68
652-PEC12-4230FS0024	PEC12-4230F-S0024	Y	24	30	4	1.39	1.02	.94	.90

BOURNS' PEL12S SERIES 12MM ENCODER WITH ILLUMINATED SHAFT

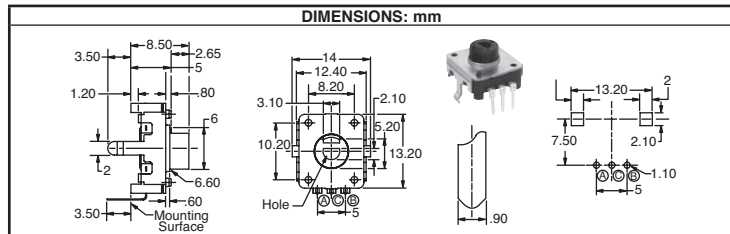
Features:

- Compact design, long life and high reliability
- Vertical and horizontal mount versions
- Flatted and knurled shaft styles
- Variety of LED colors available

Applications:

- Level control, tuning and timer settings in:
 - Audio-visual equipment
 - Consumer electric appliances
 - Musical instrumentation
 - Communications equipment

MOUSER STOCK NO.	Bourns Part No.	Color	Power Dissipation (mW)	DC Forward Current (mA)	Forward Voltage (V) Typ.	Switch	Detent	Price Each			
								1	25	50	100
652-PEL12S2024SN3024	PEL12S-2024S-N3024	Blue	80	20	3.5	N	0	2.85	1.90	1.70	1.61
652-PEL12S4025FN4024	PEL12S-4025F-N4024	Orange	100	30	2.2	N	0	2.85	1.90	1.70	1.61
652-PEL12S4224SN1024	PEL12S-4224S-N1024	Red	58	25	1.8	N	24	2.85	1.90	1.70	1.61
652-PEL12S2225FN2024	PEL12S-2225F-N2024	Green	53	25	2.0	N	24	2.85	1.90	1.70	1.61
652-PEL12D2225SS1024	PEL12D-2225S-S1024	Blue/Org	105/75	30	3.3/2.1	Y	24	3.84	2.56	2.30	2.17
652-PEL12D4225SS2024	PEL12D-4225S-S2024	Grn/Red	120/75	30	3.2/1.95	Y	24	3.84	2.56	2.30	2.17
652-PEL12D2226FS3024	PEL12D-2226F-S3024	Blue/Grn	120	30	3.3/3.2	Y	24	3.84	2.56	2.30	2.17
652-PEL12T4225SS1024	PEL12T-4225S-S1024	Blue/Grn	120	30	3.3/3.2	Y	24	6.09	4.06	3.65	3.45
652-PEL12T4226FS1024	PEL12T-4226F-S1024	RBG	60/110/110	25	2.0/3.3/3.3	Y	24	6.09	4.06	3.65	3.45



BOURNS' SHAFTLESS 12MM ENCODERS

Specifications:

- Electrical-**
 - Output: Quadrature
 - Contact Rating: 1mA @ 5VDC
 - Insulation Resistance: 10 megaohms @ 50VDC
 - Contact Bounce (60 RPM): 2.0ms max.
- Environmental-**
 - Operating Temperature Range: -10°C to +65°C (-14°F to +149°F)
 - Rotational Life: 30,000 cycles min.
 - IP Rating: IP 40

MOUSER STOCK NO.	Bourns Part No.	Switch	Detents	Price Each			
				1	25	50	100
652-PES12-40S-N0024	PES12-40S-N0024	N	0	1.76	1.56	1.38	1.30
652-PES1242S-N0024	PES12-42S-N0024	N	24	2.58	2.36	2.15	1.93

CTS SERIES 291 12MM PRECISION, LONG-LIFE COMPACT OPTICAL ENCODER

Specifications:

- Operating Voltage: 5.0 ± 0.25VDC, 3.3 ± 0.125VDC
- Supply Current: 5.0VDC @ 30mA max., 3.3VDC @ 24mA
- Operating Temp.: Operating: -40°C to +85°C, Storage: -55°C to +100°C max.
- Package Size: (L) 12 x (W) 14 x (H) 7mm

MOUSER STOCK NO.	CTS Part No.	Switch	Detents	Shaft Length	Termination	Price Each			
						1	10	50	100
291V - 2-Bit Encoder with Momentary Switch, Shaft Perpendicular to PC Board									
774-291V1022F624AB	291V1022F624AB	Y	24	22	.050" Pitch Center Pins Form to Rear with .144 length	12.43	11.30	10.54	9.60
774-291V1022F832AB	291V1022F832AB	Y	32	22	.050" Pitch Center Pins Form to Rear with .144 length	12.43	11.30	10.54	9.60
291C - 2-Bit Encoder with Momentary Switch, Cable, and Connector									
774-291C6022F624AB	291C6022F624AB	Y	24	22	.050" Pitch Center 6" Ribbon Cable with Connector	15.51	14.10	13.15	11.98
774-291C6022F832AB	291C6022F832AB	Y	32	22	.050" Pitch Center 6" Ribbon Cable with Connector	15.51	14.10	13.15	11.98

