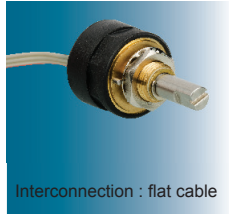


RotaCol® *Ecoline* 22/28 Ø ERC : Bushing (B) / Flange (F) / No Shaft Flange (K) Analog (A), Incremental (I), SPI (P), SSI (Y), PWM (W), I²C (C) Multiinterfaces

RotaCol® *Ecoline* ERC is a very economical **Multi-Interface** precision contactless rotary position sensor range available in plastic housings. **Multiinterfaces** = Analog, PWM, Incremental, SPI, SSI, I²C. The ERC series is divided into 3 groups : bush, flange and kit. Analog types with analog outputs 0-5V ratiometric, 0-10V, 4-20mA (replacement for precision potentiometers), Incremental output (replacement for optoelectronic encoders), PWM for signal where this output is required, Absolute digital SPI & SSI as well as I²C outputs. These digital outputs can be easily combined with appropriate microcontroller. Dimensions of 22mm & 28mm in economical plastic housing are available with shafts in bushings and with sleeve bearings. Besides that there are flange continuous rotation types available with polymer bearings and the kit version with no shaft where the user can mount the magnet wherever it is required. The mechanical and electrical data, except dimensions, are identical for RotaCol® 22ERC & 28ERC (for maximum speed explanation see page 2). Because of the wide variety of mechanical & electrical options it is possible to use them in almost any automation and control application where rotary angular sensing is required.

22/28 ERCB



Interconnection : flat cable

Detailed Datasheet :
www.rotacol.info/22aercb.pdf
www.rotacol.info/22iercb.pdf
www.rotacol.info/22percb.pdf
www.rotacol.info/22yercb.pdf
www.rotacol.info/22wercb.pdf
www.rotacol.info/22cercb.pdf
www.rotacol.info/28aercb.pdf
www.rotacol.info/28iercb.pdf
www.rotacol.info/28percb.pdf
www.rotacol.info/28yercb.pdf
www.rotacol.info/28wercb.pdf
www.rotacol.info/28cercb.pdf

Bushing Version : 22 and 28mmØ ERCB Rotary Position Sensor Contactless Hall Effect - Shaft 6mm or 1/4" , Plastic Case - Brass Sleeve bearing

Version	Analog (A)	Incremental (I)	SPI (P)	SSI (Y)	PWM (W)	I ² C (C)
Type	22/28 A ERCB	22/28I ERCB	22/28P ERCB	22/28Y ERCB	22/28W ERCB	22/28C ERCB
Electrical angle	0-20° to 0-360° in 1°step prog. (standard 360°)	2 to 128, 256, 512, (1024 ppr std)	0 - 360°	0 - 360°	0-20° to 0-360° in 1°step prog. (standard 360°)	0 - 360°
Supply voltage	5V±10% / 9-30 VDC / 15-30 VDC	5V±10% / 9-30 VDC	5V ± 10%	5V±10% / 9-30 VDC	5V±10%	3.3V±10% / 5 VDC
Output signal	0-5V ratiometric; 0-5V ; 0-10V DC Single/dual channel, 0-20mA 4-20mA	5V TTL; 5V / 24V Open Collector	Absolute SPI Single/dual channel 3 wires	5V / 24V SSI	PWM single/dual channel	I ² C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer .
Resolution steps	4096 (12 bit)	4096 (12 bit)	16383 (14 bit)	4096 (12 bit)	4096 (12 bit)	4096 (12 bit)
Mech.speed (max.)	800 rpm	800 rpm	800 rpm	800 rpm	800 rpm	800 rpm
Elec. speed (max.)	160 / 800 rpm	1600 rpm	800 rpm	1600 rpm	160 rpm	800 rpm
Life (rotations)	~ 10X10 ⁶	~ 10X10 ⁶	~ 10X10 ⁶	~ 10X10 ⁶	~ 10X10 ⁶	~ 10X10 ⁶

22/28 ERCF



Interconnection : flat cable

Detailed Datasheet :
www.rotacol.info/22aercf.pdf
www.rotacol.info/22iercf.pdf
www.rotacol.info/22percf.pdf
www.rotacol.info/22yercf.pdf
www.rotacol.info/22wercf.pdf
www.rotacol.info/22cercf.pdf
www.rotacol.info/28aercf.pdf
www.rotacol.info/28iercf.pdf
www.rotacol.info/28percf.pdf
www.rotacol.info/28yercf.pdf
www.rotacol.info/28wercf.pdf
www.rotacol.info/28cercf.pdf

Flange Version : 22 and 28mmØ ERCF Rotary Position Sensor Contactless Hall Effect - Shaft 6mm, Plastic Case - Polymer bearings

Version	Analog (A)	Incremental (I)	SPI (P)	SSI (Y)	PWM (W)	I ² C (C)
Type	22/28A ERCF	22/28I ERCF	22/28P ERCF	22/28Y ERCF	22/28W ERCF	22/28C ERCF
Electrical angle	0-20° to 0-360° in 1°step prog. (standard 360°)	2 to 128, 256, 512 (1024 ppr. std)	0 - 360°	0 - 360°	0-20° to 0-360° in 1°step prog. (standard 360°)	0 - 360°
Supply voltage	5V±10% / 9-30 VDC / 15-30 VDC	5V±10% / 9-30 VDC	5V ± 10%	5V±10% / 9-30 VDC	5V±10%	3.3V±10% / 5V DC,
Output signal	0-5V ratiometric; 0-5V ; 0-10V DC Single/dual channel, 0-20mA 4-20mA	5V TTL; 5V / 24V Open collector	Absolute SPI Single/dual channel 3 wires	5V / 24V SSI	PWM single/dual channel	I ² C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer .
Resolution steps	4096 (12 bit)	4096 (12 bit)	16383 (14 bit)	4096 (12 bit)	4096 (12 bit)	4096 (12 bit)
Mech.speed (max)	3000 rpm	3000 rpm	3000 rpm	3000 rpm	3000 rpm	3000 rpm
Elec. speed (max)	160 / 800 rpm	1600 rpm	800 rpm	1600 rpm	160 rpm	800 rpm
Life (Rotations)	~ 15X10 ⁶	~ 15X10 ⁶	~ 15X10 ⁶	~ 15X10 ⁶	~ 15X10 ⁶	~ 15X10 ⁶

22/28 ERCK



Magnet holder
Interconnection : flat cable

Detailed Datasheet :
www.rotacol.info/22aerck.pdf
www.rotacol.info/22ierck.pdf
www.rotacol.info/22perck.pdf
www.rotacol.info/22yercck.pdf
www.rotacol.info/22wercck.pdf
www.rotacol.info/22cercck.pdf
www.rotacol.info/28aerck.pdf
www.rotacol.info/28ierck.pdf
www.rotacol.info/28perck.pdf
www.rotacol.info/28yercck.pdf
www.rotacol.info/28wercck.pdf
www.rotacol.info/28cercck.pdf

Shaftless Universal : 22 and 28mmØ ERCK Rotary Position Sensor Contactless Hall effect - Magnet on user shaft - No bearings

Version	Analog (A)	Incremental (I)	SPI (P)	SSI (Y)	PWM (W)	I ² C (C)
Type	22/28A ERCK	22/28I ERCK	22/28P ERCK	22/28Y ERCK	22/28W ERCK	22/28C ERCK
Electrical angle	0-20° to 0-360° in 1°step prog. (standard 360°)	2 to 128, 256, 512, (1024 ppr. std)	0 - 360°	0 - 360°	0-20° to 0-360° in 1°step prog. (standard 360°)	0 - 360°
Supply voltage	5V±10% / 9-30 VDC / 15-30 VDC	5V±10% / 9-30 VDC	5V ± 10%	5V±10% / 9-30 VDC	5V±10%	3.3V±10% / 5 VDC
Output signal	0-5V ratiometric; 0-5V ; 0-10V DC Single/dual channel, 0-20mA 4-20mA	5V TTL; 5V/24V Open collector	Absolute SPI Single/dual channel 3 wires	5V / 24V SSI	PWM single/dual channel	I ² C Bidirectional SDA, always slave transmitter or receiver, NXP UM 10204 Prot., Master initiates data transfer .
Resolution Steps	4096 (12 bit)	4096 (12 bit)	16383 (14 bit)	4096 (12 bit)	4096 (12 bit)	4096 (12 bit)
Elec. speed (max)	160 / 800 rpm	1600 rpm	800 rpm	1600 rpm	160 rpm	800 rpm