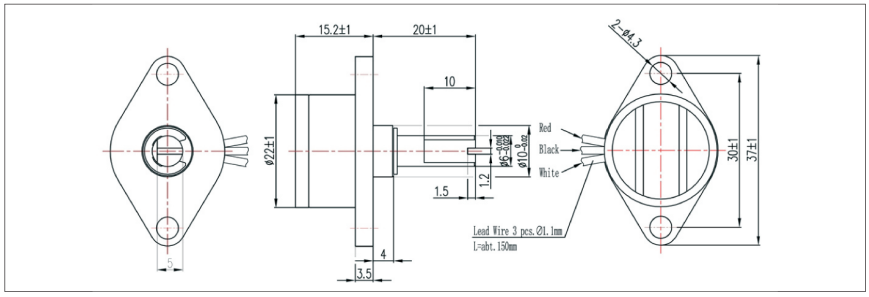
RotaCol® - *Miniline*
PRECISION ANALOG CONTACTLESS ROTARY POSITION SENSORS - FLANGE MOUNTING

Series 22A MCF

Analog - interface, Mini size 22mm housing, 360° without endstop
Hall CMOS technology
Output : 0-5V ratiometric, 0-10V, 0-5V, 4-20mA
Metal case, two ball bearings, flange mounting

www.rotacol.info/22amcf.pdf



V_{cc}-Supply (Red) OUT-Output (White) GND-Ground (Black)

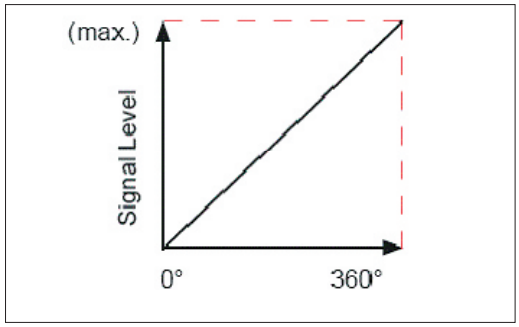
FUNCTION PRINCIPLE

The determination of angular position and signal generation is realised by an intelligent CMOS Hall sensor. A diametrical polarised magnet induces its magnetic field into the sensor. It rotates and provides a conditioned signal to the integrated electronic.

ELECTRICAL CHARACTERISTICS

Electrical angle	0 to 360°	
Resolution	4096 step (12 bit)	
Independent linearity tolerance	± 0.3%	
Signal type	Supply voltage	Output signal
0505	5V ±10%	0 - 5V ratiometric
DC05	12-24V DC	0 - 5V
2410	15-30V DC	0 - 10V
2442	15-30V DC	4 - 20mA
Supply current (mA)	< 16 mA (for 0505), < 25mA (for DC05, 2410) and < 35mA (2442)	
Update rate	0.6ms	

ANALOG INTERFACE



At the output of the sensor a variable voltage is provided proportional to the position of the shaft / axis over a complete angle range of 360 ° or a subrange. The contactless sensor electronic guarantees a steady signal level and a very low linearity error of 0.3%. With supply voltage of 5V ± 10% , output signal of 0 - 5V (ratiometric) at the sensor is provided. Besides this a large variety of electrical options such as Zero point programming, Centre point programming, Multipoint programming are provided.

MECHANICAL CHARACTERISTICS

Mechanical angle	360°(continuous)
Shaft diameter and length (FMS)	6mm Ø X 20mm
Mechanical speed (Max.)	rpm
Electrical speed (Max.)	160 rpm
Rotational life	~ 8 million rotations
Operating torque (approx.)	< 0. 5 Ncm
Operating temperature range	- 30 to +80° C
Protection	IP 54
Weight	~ 20 g

MATERIAL

Housing	Aluminium anodized
Shaft	Stainless Steel
Bearing	Ball bearing
Cable	3 leads multistrand wire 0.15 m

OPTIONS AND ORDERING REFERENCES

Housing diameter	Analog output	Miniline RotaCol	Flange (shaft Ø 6mm)	Signal	0 - 5V (ratiometric) 0-5V 0-10V 4-20mA	Angle Of Rotation	O= Without endstop 360°(continuous)	Electrical rotational direction	Clockwise (CW)	Special shaft length (standard 20mm FMS)	Special torque : (between 0.2 to 1 Ncm)	Special cable length (standard 0.15m)
22	A	MC	F		S0505 SDC05 S2410 S2442		O360		CW	Axx	xT	CVxx
22	**A**	**MC**	**F**	**Sxxxx**		**O360**		CW		**Axx**	**xT**	**CVxx**
Example with description - **22 A MCF S0505 O360 CW** - 22 mm housing, analog output, Miniline RotaCol, flange version / 6 mm Ø shaft, 0-5V ratiometric output, without stop 360° clockwise												
Standard Version : 360° CW Electrical & Mechanical angle, 3 leads multistrand wire 0.15m												

For complete RotaCol Contactless Rotary Sensor product range refer - www.rotacol.info/rotamec.pdf

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