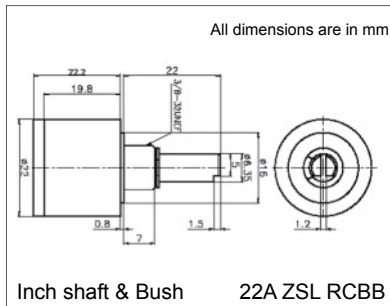
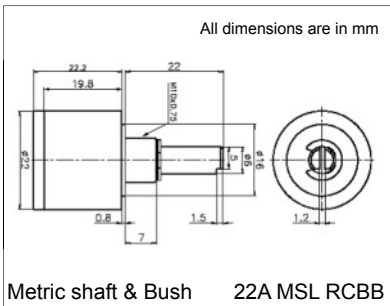




Metalcase, Hall effect magnetic
Output : 0 - 5V, 0 - 10V, 4 - 20 mA, 0 - 20 mA
Robust metal aluminium housing, 22 mm Ø housing
Bush mounting - 1 precision ball bearing
Measurement range 0° - 360°

1-Supply (Red); 2-Output (Grey); 3-Ground (Grey) : **For OCF**
1-Supply; 2-Output; 3-Ground : **For OCTA, OCTR**



Metric shaft & Bush 22A MSL RCBB

Inch shaft & Bush 22A ZSL RCBB

ELECTRICAL CHARACTERISTICS

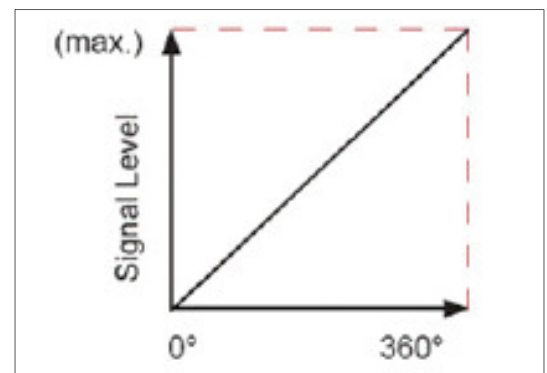
Electrical angle	0 to 360° , any angle from 0 - 20... 0 - 360 programmable in steps of 1°	
Electrical speed (Max.)	160 rpm (default) / 800 rpm (optional)	
Resolution	4096 step (12 bit)	
Signal type	Supply voltage	Output signal
S0505	5V ±10%	0 - 5V ratiometric
SDC05	9 - 30 V	0 - 5V
S2410	15 - 30 V	0 - 10 V
S2442	15 - 30 V	4 - 20 mA
S2420	15 - 30 V	0 - 20 mA
S05052C	5V ±10%	2 channel 0 - 5V ratiometric
SDC052C	9 - 30 V	2 channel 0 - 5V
S24102C	15 - 30 V	2 channel 0 - 10 V
Supply current	< 16 mA	
Independent linearity tolerance	±0.5%	
Update rate	1 ms	

For full range of Rotary Sensors refer - www.rotacol.info/rotamec.pdf

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.

ANALOG INTERFACE



MECHANICAL CHARACTERISTICS

Mechanical angle	360° (continuous)	
Bushing	Metric M10 X 0.75 (MSL)	Inch 3/8" X 32 UNEF (ZSL)
Shaft diameter and length (FMS)	Metric 6mm Ø X 22mm (MSL)	Inch 1/4" Ø X 22mm (ZSL)
Operating torque (approx.)	0.1 to 0.2 Ncm	
Protection	IP 40	
Operating temperature	- 40 to +85° C	
Operating life (approx.)	25 million rotations	
Mechanical speed (max.)	4000 rpm	
Weight	25 gm	
Interconnection	3 core flat cable 0.15 mtr long / terminal block axial or radial	

At the output of the sensor a variable voltage or variable current 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 0.5%. With supply voltages of 5VDC ± 10% ; 9 - 30VDC ; 15 - 30V (24VDC) output signals of 0 - 5VDC ; 0 -10VDC ; 0 - 20mA ; 4 - 20mA at the sensor output are provided. Besides this a large variety of electrical options such as Output signal level programming, Zero point programming, Centre point programming, Multipoint programming, two Channel redundant outputs are provided. Other options on request.

MATERIAL

Housing with bushing	Anodized aluminium
Shaft	Stainless steel
Bearings	1 precision ball bearing

Default Version :

22 mm housing, Bush Mounting with 1 Ball Bearing, 360° CW Electrical & Mechanical angle, electrical speed 160 rpm, Output signal level 0-100%, 3 core flat cable 0.15 mtr long

ORDERING INFORMATION

Refer to electrical and mechanical options on page 2

22	A	MSL	ZSL	RC	BB	Sxxx	Signal	Electrical angle	Direction of rotation	Programming options for non - effective electrical angle (only if elec. angle is < 360°)	PE1	PE2	PE3	PE4	POx	POZ	POC	POM	Axx	CVxx	OCxx	OCTA	OCTR
22	A	MSL	ZSL	RC	BB	Sxxxx	0 - 5V DC (ratiometric) 0 - 5V DC 0 - 10V DC 4 - 20mA S2420 S05052C SDC052C S24102C	any angle from 0-20 to 0-360° programmable in steps of 1° (default 360°)	Clockwise (CW) - (default) Counter clockwise (CCW)	Delta 1/2 Low level High level Variable level	PE1	PE2	PE3	PE4	POx	POZ	POC	POM	Axx	CVxx	OCxx	OCTA	OCTR
22	A	xSL		RC	BB		Sxxxx	xxx	CW / CCW		PEx				POx				Axx	CVxx			OCxx

Example with description - **22A MSL RCBB S2442 180CW PE1 POZ OCTA** - 22mm diameter, analog output, Metric Silverline (Bush Thread M10X0.75 & Shaft 6mm), RotaCol, Bush version with 1 ball bearing, Signal - 4-20 mA, 180 angle clockwise, delta 1/2, Zero point, Terminal block axial

Please note: The specification and information in this datasheet cannot consider all special demands that are caused by the application. Because of this, they are no general description of the properties of the product. Megacraft does not assume any responsibility for damages due to improper application of our products. The user has to ensure on his own, that the products used are suitable for this application. Megacraft does not warrant the reproducibility of published information. The specifications can be changed any time without notice.

ELECTRICAL OPTIONS FOR ANALOG VERSION 22A MSL/ZSL RCBB

Electrical options for Effective electrical angle :

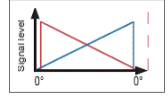
Electrical angle (xxx) : Standard configuration is 360°. As an option, any angle from 0-20° to 0-359° in steps of 1° can be programmed. (Price adder)

Output Signal level Programming (POL) : Standard configuration is 0-100%. Output signal can be programmed at any defined lower limit or upper limit in terms of percentage of output. Example : 10% to 90% for S0505 will give output from 0.5V to 4.5V (Price Adder).

Direction of Rotation (CW/CCW) :

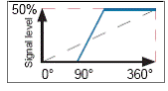
CW (Clockwise) When shaft is viewed from top, and rotated in clockwise direction, output increases from minimum to maximum value (standard configuration).

CCW (Counter clockwise) when shaft is viewed from top, and rotated in counter clockwise direction, output increases from minimum to maximum value (Price adder).



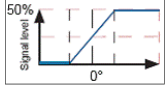
Zero point Programming (POZ) :

Standard configuration is zero point without orientation. At POZ, when we do zero point programming rising ramp will start from marking on encoder housing or from the endstop CCW. Zero point can also be programmed at any defined offset from marking on the housing (Price Adder).



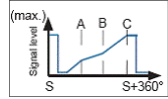
Center Point Programming (POC) :

Effective electrical angle is aligned with the mechanical zero point in such a way that equal effective angles in both rotating directions are achieved. Center point can also be programmed at any offset (Price Adder).



Multi Point Programming (POM) :

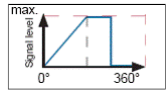
Output characteristics : 3 to 6 rising or falling linear segments. Minimum and maximum signal level can be defined within the total electrical angle. First and last linear segment (min./max.) is always horizontal 1 to 3 settable calibration points. (Price Adder)



Electrical options for Non - Effective electrical angle (Price Adder) : (If electrical angle is < 360°)

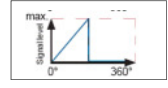
Delta 1/2 (PE1) :

If the electrical effective angle is programmed smaller than 360°, the remaining non-effective electrical angle is divided in two equal parts : high level & low level - Delta 1/2.



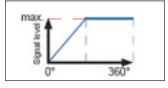
Low level (PE2) :

If the electrical effective angle is programmed smaller than 360°, after reaching the maximum, the signal level falls to low level.



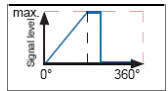
High level (PE3) :

If the electrical angle is programmed smaller than 360°, the signal level remains high after reaching the full level.



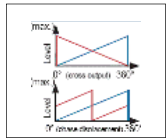
Variable level (PE4) :

If the electrical angle is programmed smaller than 360°, remaining non-effective electrical angle can be divided into high and low level in any ratio according to customer request.



2 Channel Redundant Output (2C) - Special type

2 Channel Output (2C) : The sensor provides 2 operating modes: A) Redundancy i.e. channel one and channel two are identical. If one channel fails the other channel remains active. B) It is also possible to have 2 different programs in the 2 channels. For this, additional functions can be obtained.



MECHANICAL OPTIONS FOR ANALOG VERSION 22A MSL/ZSL RCBB

Type / Series	Standard mechanical options	Customized mechanical options
22A MSL / ZSL RCBB	Terminal Block axial or terminal block radial (OCTA / OCTR), special cable length	Special shaft length

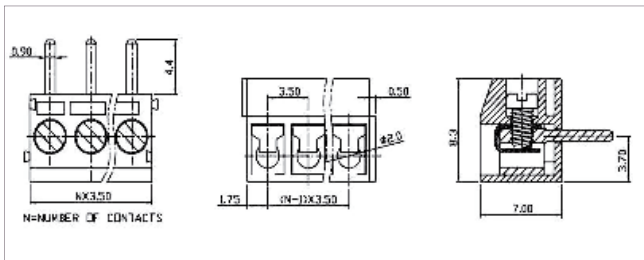
INTERCONNECTIONS

Standard Interconnections - 3 Core flat cable

Other Interconnection options

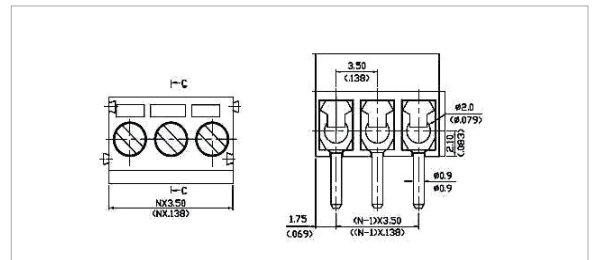
Terminal block - Axial (OCTA)
Wires leaving axial to shaft axis

3 sockets



Terminal block - Radial (OCTR)
Wires leaving radial to shaft axis

3 sockets



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