

# RM44 / 58DC – Absolute Encoder with BiSS–C interface



Engineering samples available.

## Absolute Encoder with BiSS–C interface

<b>Output code</b>	Natural binary
<b>Power supply</b>	$V_{dd} = 5\text{ V} \pm 5\%$
<b>Current consumption</b>	Max. 50 mA
<b>Clock input</b>	MA (RS422)
<b>Data output</b>	SLO (RS422)
<b>Accuracy</b>	Typ. $\pm 0.5^\circ$
<b>Hysteresis</b>	$0.18^\circ$
<b>Resolution</b>	320, 400, 500, 512, 800, 1,000, 1,024, 1,600, 2,000, 2,048, 4,096, 8,192 positions per revolution
<b>Maximum speed</b>	30,000 rpm
<b>Operating temperature</b>	$-40\text{ }^\circ\text{C}$ to $+125\text{ }^\circ\text{C}$ (IP64) $-40\text{ }^\circ\text{C}$ to $+85\text{ }^\circ\text{C}$ (IP68)
<b>Max MA frequency</b>	8 MHz

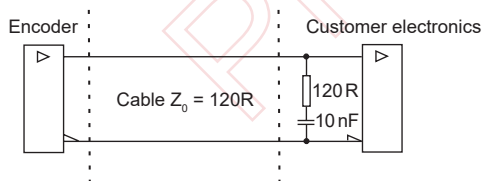
### Timing diagram – BiSS-C



Data	Length	Description
P24 – P0	0 to 24 bit	Revolution counter value (length depends on the settings chosen)
S12 – S0	3 to 13 bit	Position inside the revolution (length depends on the resolution)
E1 – E0	2 bit	Error data
CRC5 – CRC0	5 to 6 bit	Cyclic redundancy check data; polynomial 0x43; inverted bit output

### Recommended signal termination

For data output lines only

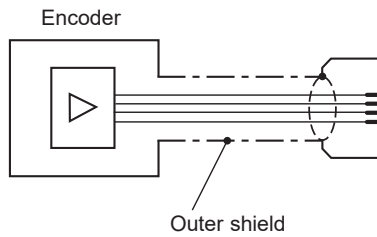


Error	E0	E1
No error	1	1
Amplitude error	0	1
Too high velocity	1	0
Undervoltage; Configuration; System error	0	0

For more information on BiSS-C protocol please visit [www.biss-interface.com](http://www.biss-interface.com).

## Connections

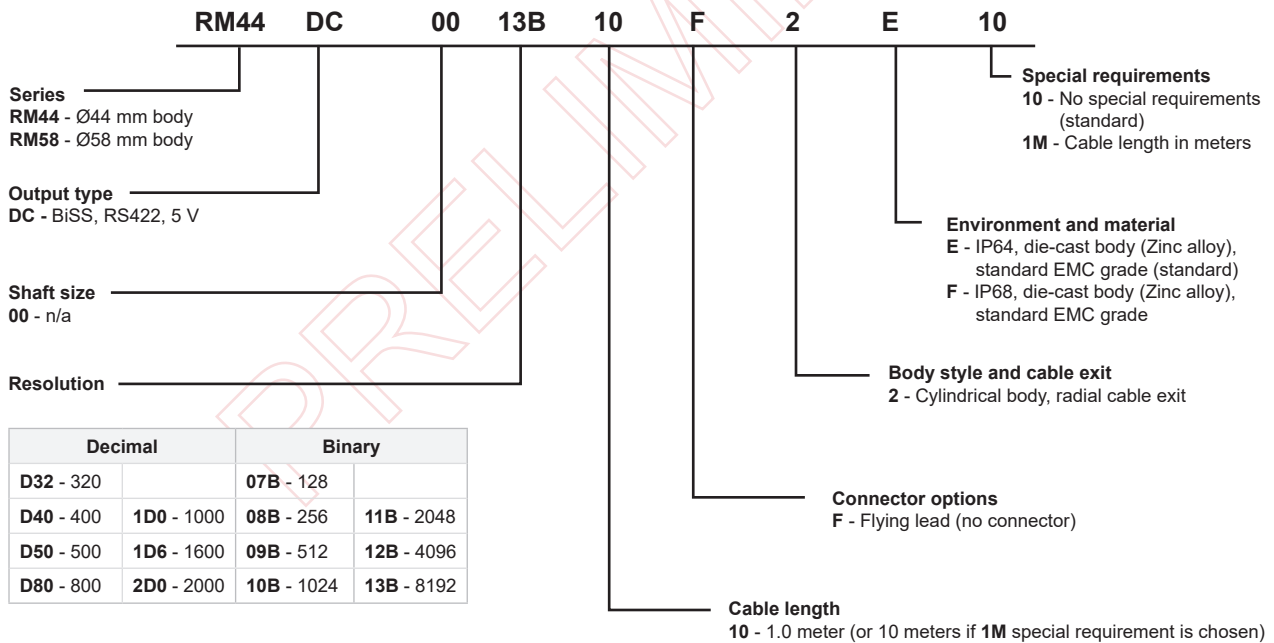
RM44/RM58DC	
Function	Wire colour
Shield - see connection diagram	
V <sub>dd</sub>	Red
GND	Blue
MA+	White
SLO+	Green
MA-	Brown
SLO-	Yellow



**NOTE 1:** The product dimensions and installation drawing are available on the RM44/RM58 data sheet ([RM44D01](#)).

**NOTE 2:** The RM44DC can be used with all standard magnetic actuators.

## Part numbering



## Head office

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## Document issues

Issue	Date	Page	Amendments done
3	8. 8. 2019	1	Current consumption amended

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