

## MA550 - SERIES



### HEAVY DUTY INCREMENTAL ENCODER Ø 30 MM

*Encoder with synchro flange and 3 mounting holes M3*

- Ø 30 mm
- 4 mm solid shaft without face or 6 mm with face
- Enlarged sturdy bearings
- Short circuit and reversed polarity proof
- Ingress protection up to IP67, depends on connection
- Standard: 5-30V Power Supply, 300kHz  
6 Square Wave Signals  
Marker Pulse, and inverted Signals
- Option: 7-35V power supply, 100 kHz  
Customization upon request

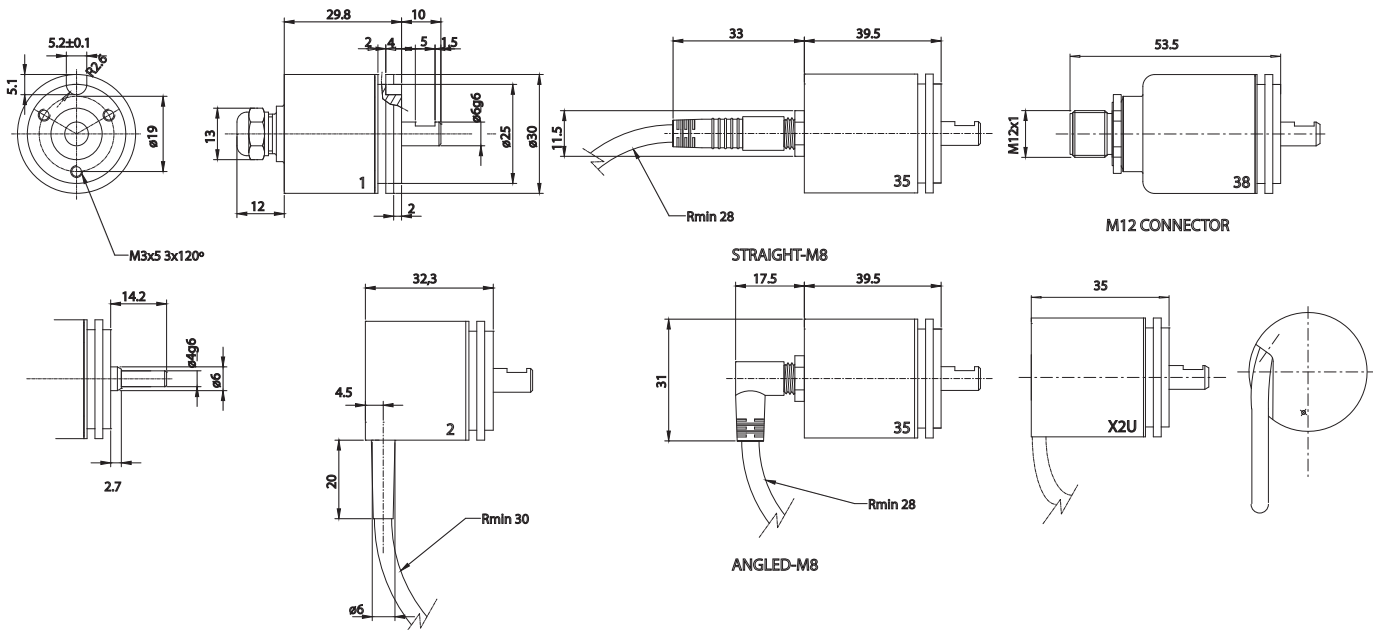


*Flexible and durable  
encoder for demanding  
applications*

 File E342441



Conforms to european EMC directive  
89/336/EEC standards:  
EN61000-6-4 emission in industrial environments  
EN61000-6-2 immunity in industrial environments

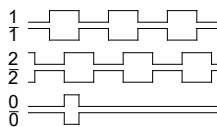
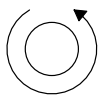


## ELECTRICAL SPECIFICATION

Supply voltage <sup>(1)</sup>	Vcc 5–30 V
Supply voltage <sup>(2)</sup>	Vcc 7-35 V
Current consumption	Max 40 mA without load
Output circuit	Linedriver RS422A compatible
Low level output volt.	Max <0,5 V at 20 mA load and 20°C
High level output volt.	Min >Vcc-1V at 20mA load and 20°C
Short circuit protected	Yes
Polarity protected	Yes
Transient protected	Yes
Max load	70 mA

## OUTPUT SIGNALS

CCW rotation seen from shaft end



## SIGNAL ACCURACY

Dividing error max	±50 el°
Channel separation	90 ±25 el°
Max frequency	300 kHz or 100 kHz
Operating temperature	-40° to +80°C

## MECHANICAL SPECIFICATION

Housing	Aluminum, electrically conductive for increased interference protection
Sealing	IP67 dust and splash proof (IP66 at shaft outlet)
Bearings	Permanently greased
Bearing load at	1 000 rpm
Radial	30 N Gives 50 000 hrs
Axial	30 N bearing life
Max rpm	3 000 (12 000)
Vibration	20g 20-2000 Hz
Shock	200g at 11 ms
Weight	approx. 60 gr (without cable)

## CONNECTIONS

<b>1</b>	Axial cable, 1 m DEF	<b>35</b>	Axial 5-pin male M8
<b>2</b>	Radial cable, 1 m DEF	<b>35L</b>	Axial 5-pin male M8 + LED
<b>1xU</b>	Axial cable, Unitronic	<b>38</b>	Axial 8-pin male M12
<b>X2U</b>	Axial/Radial, 1m Unitronic		

## FUNCTION

	<b>1,2</b>	<b>1xU, X2U</b>	<b>35/35L</b>	<b>38</b>
<b>1</b>	Green	Green	3	3
<b>1 inv</b>	White	-	-	1
<b>2</b>	Yellow	Yellow	4	4
<b>2 inv</b>	Black	-	-	5
<b>0</b>	Brown	Grey	5	2
<b>0 inv</b>	Violet	-	-	6
<b>+ V</b>	Red	Brown	1	8
<b>0 V</b>	Blue	White	2	7
<b>Gnd</b>			Chassi	Chassi

## MATING CABLE CONNECTORS

M8SR5-5, female straight screw connector, 5m cable  
 M8SV5-5, female angled screw connector, 5m cable  
 M12SR8-3, 8 pin female straight screw connector, 3m cable  
 M12VR8-3, 8 pin female angled screw connector, 3m cable

## ORDERING CODE

Model	MA550	6	100	1	X
Shaft 4 or 6 mm					
Pulse rate 1-1 250					
Connection					
X= meter cable					



Skogsvägen 1, SE-645 34 Strängnäs, Sweden  
 Tel: +46 152 33 11 90. Fax: +46 152 33 11 91  
 E-mail: info@emetaencoders.com  
 www.emetaencoders.com

<sup>(1)</sup> Connection 1, 2 & 38 is powered by 5-30 Vdc, 6 channels, 300 kHz

<sup>(2)</sup> Connection 1xU, X2U, 35 & 35L is powered by 7-35 Vdc, 3 channels, 100 kHz