

# MDI 63 A / D series

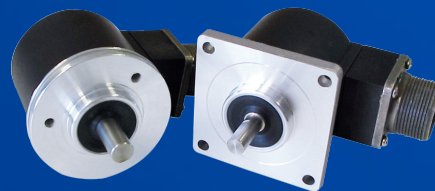
Standard  $\varnothing$  63 mm encoder series for industrial applications with high mechanical resistance requirements



Standard  $\varnothing$  63 mm encoder

## features

- 3 channel encoder (A / B / Z) up to 2500 ppr
- Power supply up to +30 VDC with several electronic outputs available
- Up to 220 kHz output frequency
- Cable or connector output
- Solid shaft diameter up to 10 mm
- Mounting by synchronous or centering 2,5" square flange



## web contents



- Application notes
- Photos
- Catalogue / Manuals



## code description

	MDI	63A	1000	Z	5/30	P	9	X	X	M	R
series	MDI	incremental encoder series MDI									
model	63A	synchronous flange $\varnothing$ 31.75 mm									
	63D	centering square flange $\varnothing$ 31.75 mm									
resolution	D	ppr 100 ... 2500 mm									
zero pulse	S	without zero pulse									
	Z	with zero pulse									
power supply	5/30	5...30 Vdc									
electronic interference	P	push-pull									
	L	line driver									
	RS	power supply 5/30V - output RS-422									
shaft diameter	9	9,52 (3/8") mm									
	10	10 mm									
enclosure rating	X	IP54									
	S	IP66									
option	X	to be reported									
output type	P	cable (standard length 1.5 m)*									
	M	MIL connector									
	M12	M12 connector									
direction type	A	axial									
	R	radial									

\* Longer cable available on demand

Standard  $\varnothing$  63 mm  
encoder

## technical specification

MDI 63 A / D	
shaft diameter	$\varnothing$ 9,52 (3/8") / 10 mm
IP mechanical protection	X = IP 54 (IEC 60529) S = IP 66 (IEC 60529)
max rotation speed	6000 rpm (IP54) 3000 rpm / 70° C - 2000 rpm / 85° C (IP66)
max shaft load	200 N
shock resistance	50 G, 11 ms up to 2500 ppr (IEC 60068-2-27)
vibration resistance	10 G, 10 ... 2000 Hz (IEC 60068-2-6)
moment of inertia	$1,5 \times 10^{-6}$ kgm <sup>2</sup>
starting torque (at +20°C / +68°F)	< 0,02 Nm (IP 54) < 0,06 Nm (IP 66)
body material	EN-AW 2011 aluminum
shaft material	1.4305 / AISI 303 stainless steel
housing material	PA66 glass fiber reinforced
bearings	2 ball bearings
bearings life	10 <sup>9</sup> revolutions
operating temperature	-25° ... +85°C (-13° ... +185°F) ER series
storage temperature	-25° ... +70°C (-13° ... +158°F)
weight	350 g (12,35 oz)
resolution	from 100 to 2500 ppr
power supply	5/30 = 4,5 ... 30 V DC (reverse polarity protection)
No-Load supply current	800 mW
max load current	20 mA / channel
output type*	push-pull / line driver
max output frequency	220 kHz
counting direction	A leads B clockwise (shaft view)
EMC	IEC 61000-6-2 IEC 61000-6-4

\* output levels according to power supply

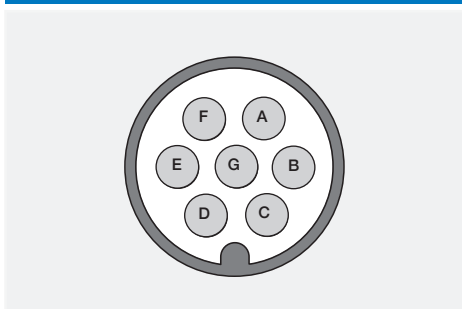
## resolutions

MDI 63 A / D
100* - 120 - 128 - 150 - 200 - 240 - 250 - 256 - 300 - 360* - 400 - 480 - 500* - 512* - 600* - 625 - 720* - 750 - 800 - 900 - 1000* - 1024* - 1200 - 1250 - 1440 - 1500 - 1600 - 1800 - 2000* - 2048* - 2500*

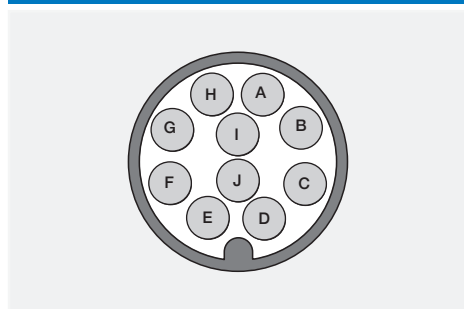
\* preferred resolutions

function	Cable output Push pull	Cable output Line driver	7 pin M output Push pull	7 pin M output Line Driver no Zero	10 pin M output Line Driver with Zero	5 pin M12 output Push pull	8 pin M12 output Line Driver
+V DC	red	red	F	D	D - E	2	7
0 V	black	black	A	F	F	4	1
Ch. A	green	green	C	A	A	3	6
Ch. A-	/	brown	/	C	G	/	5
Ch. B	yellow	yellow	E	B	B	1	4
Ch. B-	/	orange	/	E	H	/	3
Ch. Z	blue	blue	D	/	C	5	2
Ch. Z-	/	white	/	/	I	/	8
⊥	shield	shield	G	G	J	housing	housing

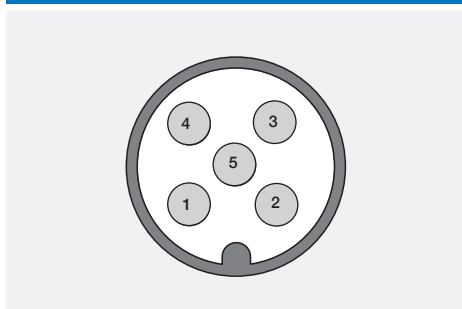
M connector (7 pin)  
Amphenol MS3102-E-16-S  
solder side view FV



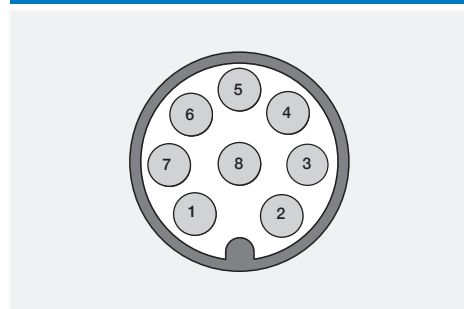
M connector (10 pin)  
Amphenol MS3102-E-18-1  
solder side view FV



M12 connector (5 pin)  
M12 A coded  
solder side view FV



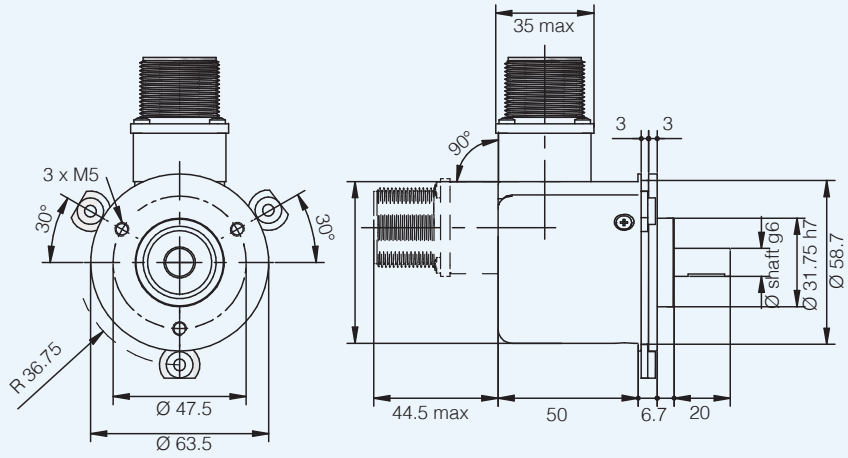
M12 connector (8 pin)  
M12 A coded  
solder side view FV



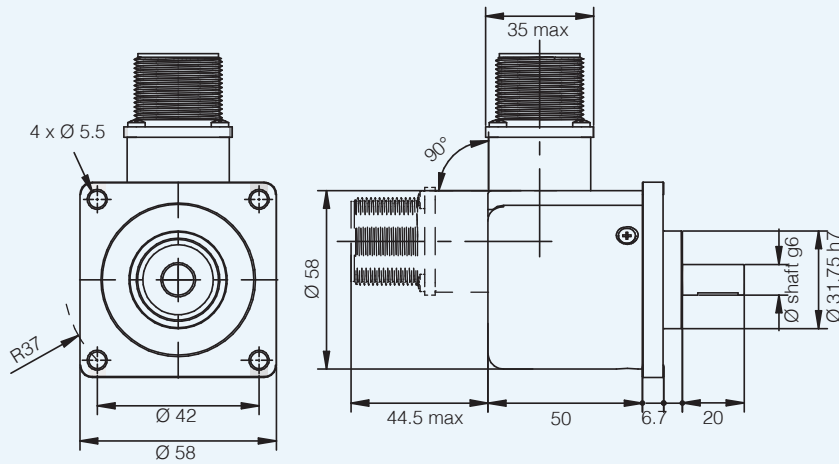


## dimensions (mm)

MDI 63 A



MDI 63 D



## dimensions (mm)

set n.3 fixing clamps for model 63A

