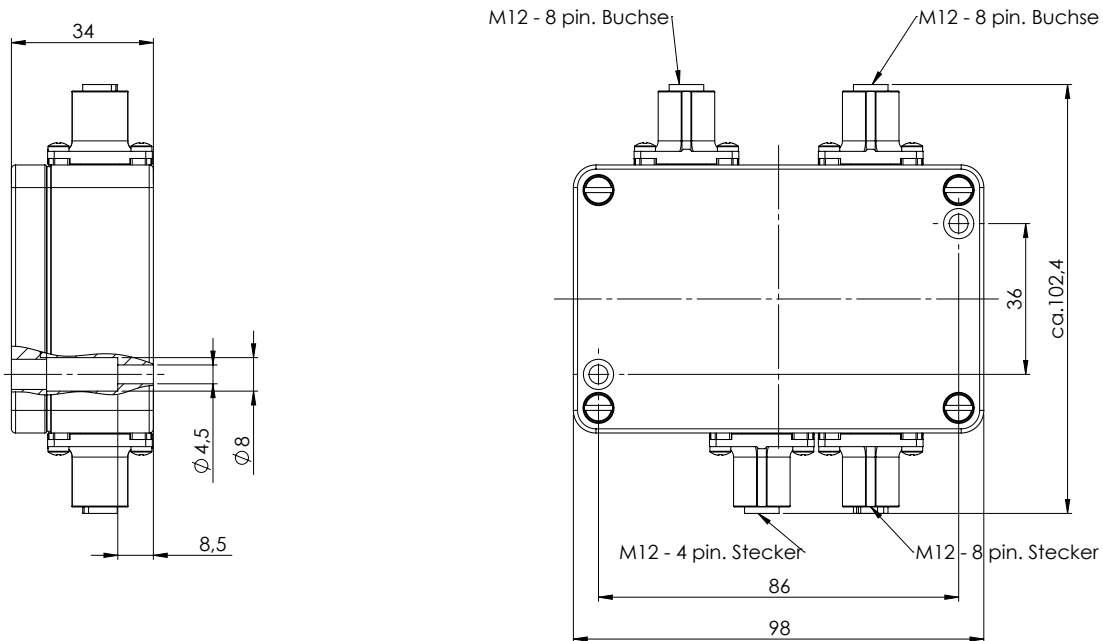


# MHSA

- MHSA - Double head scanning for absolute angle encoder
- Grating period 1000µm



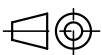
For the operation of the MHSA, two absolute angle measuring systems in the „HA“ version are required with interface EnDat2.2

## Ordering code

- MHSA - Multi scanning head for absolute angle encoder
- Grating period 1000µm

Line count	Position/Rotation	Position/Rotation Output	Interface	Ordering code	ID-Nr.
256 360	22bit	23bit	EnDat 2.2	MHSA 30 . 01-4194304-8388608 ..-5XB008-C4	1146665-08
			BiSS/C	MHSA 30 . 16-4194304-8388608 ..-5XB008-C4	1146665-06
			Fanuc α	MHSA 30 . 02-4194304-8388608 ..-5XB008-yy	1146665-13
512 720 900	23bit	24bit	EnDat 2.2	MHSA 30 . 01-8388608-16777216 ..-5XB008-C4	1146665-03
			BiSS/C	MHSA 30 . 16-8388608-16777216 ..-5XB008-C4	1146665-09
			Fanuc α	MHSA 30 . 02-8388608-16777216 ..-5XB008-yy	1146665-14
1024 1440 1800	24bit	25bit	EnDat 2.2	MHSA 30 . 01-16777216-33554432 ..-5XB008-C4	1146665-04
			BiSS/C	MHSA 30 . 16-16777216-33554432 ..-5XB008-C4	1146665-10
			Fanuc α	MHSA 30 . 02-16777216-33554432 ..-5XB008-yy	1146665-15
2048	25bit	26bit	EnDat 2.2	MHSA 30 . 01-33554432-67108864 ..-5XB008-C4	1146665-05
			BiSS/C	MHSA 30 . 16-33554432-67108864 ..-5XB008-C4	1146665-11
			Fanuc α	MHSA 30 . 02-33554432-67108864 ..-5XB008-yy	1146665-16

Tolerance principle in accordance with ISO 8015  
 General tolerances in accordance with ISO 2768-fH  
 All dimensions in mm



## Technical data

MHSA 30									
Interface	EnDat 2.2			Fanuc $\alpha$			BiSS/C		
Description	EnDat 22			Fanuc 02			BiSS		
Electrical connection	Input: M12 / 8pin Buchse Output: M12 8pin male								
Supply voltage	DC 24V (min. 9V und max. 36V)								
Power consumption	Max. 6W; $\leq$ 250mA at 24V								
Electricity recording	$\leq$ 250mA at 24V								
System resolution	23 to 27bit/The resolution is depend on the line count								
Schock	$<$ 1000m/s <sup>2</sup> for 6m/s								
Vibration	$<$ 200m/s <sup>2</sup> 55Hz - 2000Hz								
Operating temperature	-10°C to 85°C								
Storage temperature	-20°C to 85°C								
Protection	IP66								
Appropriate scanning head	WMKA with EnDat2.2 interface and 14bit interpolation factor zB.: WMKA 2x10HA.0114								
Line count	256	360	512	720	900	1024	1440	1800	2048
Electrical max. speed [min <sup>-1</sup> ]	$\leq$ 4680	$\leq$ 3330	$\leq$ 2340	$\leq$ 1660	$\leq$ 1330	$\leq$ 1170	$\leq$ 830	$\leq$ 660	$\leq$ 580
Max. Position/Rotation Input	22bit		23bit			24bit		25bit	
Max. Position/Rotation Output	23bit		24bit			25bit		26bit	
Line count	256	360	512	720	900	1024	1440	1800	2048
Grating period	$\pm$ 1,60"	$\pm$ 1,10"	$\pm$ 0,80"	$\pm$ 0,60"	$\pm$ 0,50"	$\pm$ 0,40"	$\pm$ 0,30"	$\pm$ 0,30"	$\pm$ 0,20"
Grating period accuracy <sup>1)</sup>									
$\pm$ 10 $\mu$ m arc length	$\pm$ 26"	$\pm$ 18"	$\pm$ 13"	$\pm$ 9,0"	$\pm$ 7,5"	$\pm$ 6,5"	$\pm$ 4,5"	$\pm$ 4,0"	$\pm$ 3,5"
$\pm$ 5 $\mu$ m arc length	$\pm$ 13"	$\pm$ 9,0"	$\pm$ 6,5"	$\pm$ 4,5"	$\pm$ 4,0"	$\pm$ 3,5"	$\pm$ 2,5"	$\pm$ 2,0"	$\pm$ 2,0"
$\pm$ 3 $\mu$ m arc length	$\pm$ 8,0"	$\pm$ 5,5"	$\pm$ 4,0"	$\pm$ 3,0"	$\pm$ 2,5"	$\pm$ 2,0"	$\pm$ 1,5"	$\pm$ 1,5"	$\pm$ 1,0"

1) The grating accuracies shown above are calculated for optimal roundness of the measuring flange or measuring ring. Therefore those values are showing the maximum achievable accuracy of the grating.