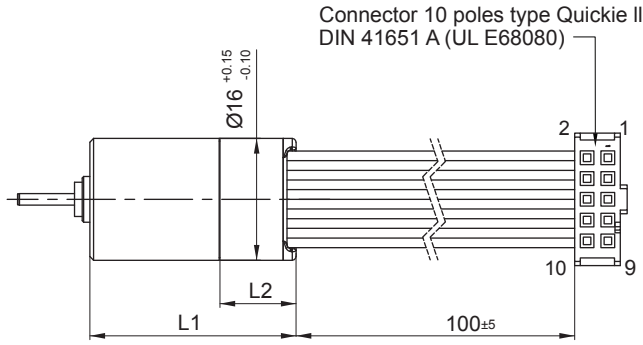


M-Sense16

Magnetic Encoder (incremental/absolute output)



Dimensions in mm

Pin allocation				
	with DC Motor		with BLDC Motor	
	M-Sense16i	M-Sense16a	M-Sense16i	M-Sense16a
1 (red)	Motor +(LM)	VCC	Do not connect	VCC
2	VCC	GND	VCC	GND
3	GND	SLO	GND	SLO
4	Motor -(RM)	MA	Do not connect	MA
5	Channel A/	SLI	Channel A/	SLI
6	Channel A	Do not connect	Channel A	Do not connect
7	Channel B/	Motor +(LM)	Channel B/	Do not connect
8	Channel B	Motor -(RM)	Channel B	Do not connect
9	Channel Z/	Not connected	Channel Z/	Not connected
10	Channel Z/	Not connected	Channel Z/	Not connected

General Data			M-Sense16i Incremental	M-Sense16a Absolute	Unit
1	Number of Lines Available*		1 to 1024	1 to 1024	LPR
2	Supply Voltage	Min/Max	4.5 / 5.5	4.5 / 5.5	Volt
3	Supply Current	Max	30	30	mA
4	Rise/Fall Time (CL=50pF)		60 / 60	60 / 60	ns
5	Output Frequency		16	-	MHz
6	Maximum Communication Speed		-	10	Mbit/s
7	Electrical Phase Shift	Binary Resolutions	up to 256 LPR	90 ±45	°e
		up to 1024 LPR	90 ±75	-	°e
	Non-Binary Resolutions	up to 250 LPR	90 ±50	-	°e
		up to 1000 LPR	90 -75/+145	-	°e
8	Duty Cycle	Binary Resolutions	up to 256 LPR	50 ±15	%
		up to 1024 LPR	50 ±25	-	%
	Non-Binary Resolutions	up to 250 LPR	50 ±25	-	%
		up to 1000 LPR	50 ±35	-	%
9	INL (Integral Non-Linearity)		1.5	1.5	°m
10	Maximum Speed		120'000	120'000	rpm
11	Line Driver Parameters*		4 mA / 10 MHz (default)	-	
12	Interface type		-	Absolute BiSS-C or SSI	
13	Cable Type		AWG28 Ribbon cable pitch 1.27mm	AWG28 Ribbon cable pitch 1.27mm	
14	Operating Temperature Range		-40 to +125 (-40 to 257)	-40 to +125 (-40 to 257)	°C (°F)
15	Weight		8 (0.28)	8 (0.28)	g (oz)

Notes:
All parameters are given at 22°C - room temperature. Most of those parameters will vary w/ temperature
Supply Voltage for measurement is 5Vdc / - Phase Shift & Duty cycle are given for 5'000 rpm
*Factory configured

Available on Motor Types	16DCP 26P1/P2	16DCP 26G1/G2	16DCT 26P1/P2	16DCT 26G1/G2	16S78	16N98	17DCT 26P1/P2	17DCT 26G1/G2
L1 Length with motor mm (in)	36.1 (1.42)	36.6 (1.44)	36.1 (1.42)	36.6 (1.44)	27.1 (1.07)	36.4(1.43)	36.1 (1.42)	36.6 (1.44)
L2 Length without motor mm (in)	10 (0.40)	10 (0.40)	10 (0.40)	10 (0.40)	10 (0.39)	10 (0.40)	10 (0.40)	10 (0.40)

Available on Motor Types	17N78	22S48	22N98	22DCP	22DCT	24DCT	23GST	25GST
L1 Length with motor mm (in)	34.4 (1.35)	36.6 (1.44)	46.4 (1.83)	**	**	**	**	**
L2 Length without motor mm (in)	10 (0.40)	9.45 (0.38)	13.1 (0.52)	**	**	**	**	**

Available on Motor Types	30GT	35NT	35GLT	16ECP24	16ECP36	16ECP52	**Available on request	
L1 Length with motor mm (in)	**	**	**	35.4 (1.39)	47.4 (1.86)	63.4 (2.50)		
L2 Length without motor mm (in)	**	**	**	11.4 (0.45)	11.4 (0.45)	11.4 (0.45)		

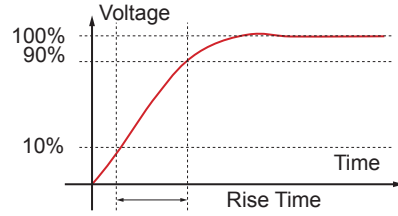
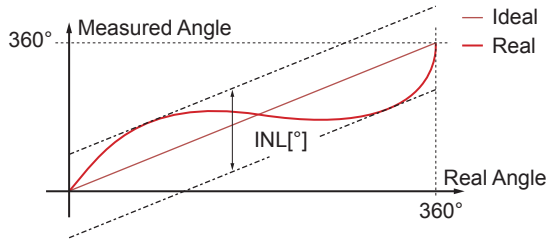
Encoder performance option available on request (contact us):

Optional Line driver type: 4mA-10MHz (default) / 60mA-10MHz / 60mA-300kHz / 20mA-3MHz. 4mA-10MHz is recommended for use as single ended outputs. Other options are dedicated for use of differential outputs.

Other parameters can be customized: Index synchronization mode, minimal edge distance, direction of rotation, low current mode and others.

M-Sense16

Magnetic Encoder (incremental/absolute output)



For incremental version:

