

GUBOA IGS Magnetic Encoder

Measuring principle

- ✓ Integrated magneto resistors with magnet bias via sub electronic converter to sinusoidal analog or TTL line driver (RS422) output.

General information

- ✓ Contactless sensing of rotation position and or speed.
- ✓ Contact free detection without any mechanical wear problem.
- ✓ Compact design scanning head.
- ✓ High protection class IP 67 designed for use in harsh environment.
- ✓ Sensing Gear wheel from module 0.4 and 0.5 mm.
- ✓ High response, analog or TTL output (TTL up to 500Khz).



Applications

- ✓ Position detection and feedback for Machine Tools.
- ✓ AC Motor and spindle speed & position measuring.
- ✓ Other special mechanical applications or in harsh environment

Specification

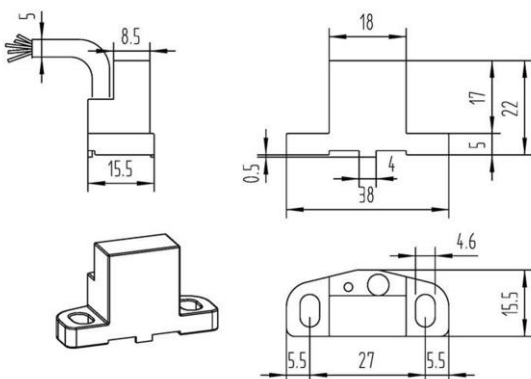
	GS A	GS T
Power supply VCC (DCV)	5 V±5%	5 V±5%
Load Current (open output)	≤ 60 ma	≤ 60 ma
VOH (open-output)	-	≥ 2.5V
VOL (open-output)	-	≤ 0.5V
Output signal type	analog	RS 422A
Output signal amplitude	≥ 1Vpp	-
A, B phase shifting	≤ 90±10°	≤ 90± 25°
Sensing gap	0.15± 0.03 mm	0.15± 0.03 mm
Operating temperature	-20 ~ 100 °C	-20 ~ 100 °C
Protection class	IP67	IP67

Output assignment

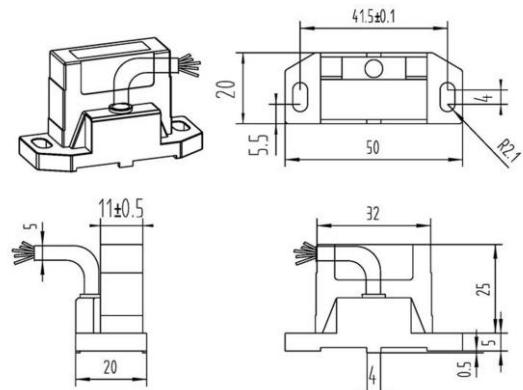
Definition	Color	TTL	1Vpp
VCC	brown	DC +5V	DC +5V
GND	white	DC 0V	DC 0V
A+	green	A	A+
A-	yellow	/A	A-
B+	blue	B	B+
B-	red	/B	B-
Z+	gray	Z	Z+
Z-	pink	/Z	Z-
shielding		screening	screening

*1 Meter Open end with flat connector

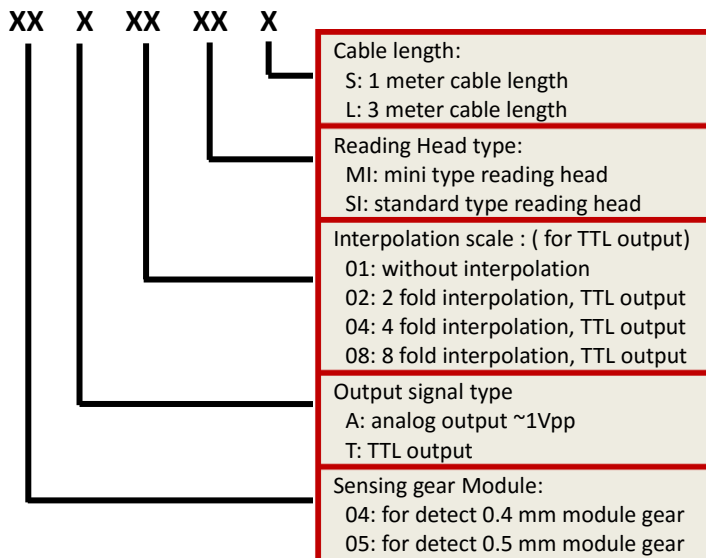
Dimension of mini-head



Dimension of standard-head



Scanning Head Selection



Gear Selection

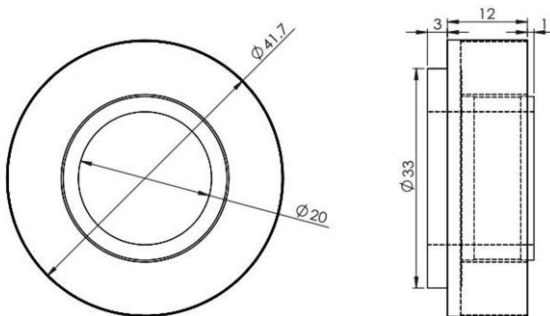
TYPE	DX (mm)	Id (mm)	Dh (mm)	Ha (mm)	teeth
M4 128-35	52	35	43	3.5	128
M5 128-50	65	50	57	3.5	128
M4 128-30	52	30	41	3.5	128
M5 128-40	65	40	53	4.2	128
M4 256-82	103.2	82	92	4.5	256
M5 256-95	129	95	112	4.5	256

* custom made available

MRSM



- Contact free detect speed and position
- Max rpm up to 24,000 rpm
- Max resolution up to 2048 ppr for TTL output



	MRSM-20T
Power supply Vcc (DCV)	5 V \pm 5%
Power consumption (open output)	\leq 40 ma
VOH (open-output)	\geq 2.5V
VOL (open-output)	\leq 0.5V
Output signal type	RS 422A
Pluse counting /rev	1024 ppr/rev
Max Output signal frequency	350 KHz
A, B phase shifting	\leq 90 \pm 25°
Sensing gap	0.4 \pm 0.1 mm
Operating temperature	-20 ~ 100 °C
Protection class (scanning head)	IP67
Weight scanning head	25 \pm 5 (g)
Weight Magnetic Ring	42 \pm 5 (g)

Adapters



- Convert and Interpolation sine wave into TTL line driver output
- Digitalizing and interpolation 1Vpp signal
- 1~500 folds interpolation



- 5V TTL encoder signal to 1 Vpp signal

CHIAREY ENTERPRISE CO., LTD

TEL: 886 4 24791737

<http://www.chiarey.com>

FAX: 886 4 24791315

E-mail: chiarey@ms9.com