GMR2

Induct-Sinusoidal Encoder

GMR2/GMRC-200 series is a high-resolution robust linear encoder of which structure is simplified and can enjoy heat-resistant 120℃.

Succeeding to GMR sensor principle of operation, sleeve dia has now widened ϕ18mm and offering more robust structure.

Detecting absolute position of each sleeve pair within one pitch of 51.2mm and incremental position over one pitch by counting pitches. GMR2 series are the semi-absolute linear encoder of 24 bits integrated data of one pitch absolute and pitch count.

SC type has now been added making cable duct mount possible.

■Specifications

◆Sensor

Effective stroke	25.6mm～1996.8mm	
Absolute sensing	51.2mm	
Accuracy	0.15mm＋0.01mm×(stroke/51.2)	
Operating temp	-20℃～+120℃	
Storage temp	-40℃～+130℃	
Operating humidity	10～100%RH	
Vibration	20G (10～150Hz) direction XYZ	
Shock	100G 6ms direction XYZ	
Admissible pressure	35MPa (probe)	
Oil proof	mineral oil, water-glycol phosphoric acid ester, fatty acid ester	
Protection	IP67 (10kPa, 30min)	
Cable (max)	genuine	200m
	KPEV-S	100m

◆Controller

Output	Open collecor photo isolate
Resolution	0.00625mm
Positional output	24bit (13bit absolute+11bit pitch count)
Output Code	Binary or Gray
Sample rate	5kHz / 2.5kHz / 1.25kHz / 0.625kHz
Power supply	DC 22～30V
Consumption	< 8W (DC24V 0.3A)
Operating temp	-20℃～+65℃
Storage temp	-40℃～+75℃
Operating humidity	10～90%RH (no-condense)
Vibration	2G (10～150Hz)
Shock	50G (11ms)
Dielectric withstand voltage	AC500V @ 1 minute
Insulation resistance	≧10MΩ with 500VDC
Protection	IP30
Dimensions	50W×270H×140D (connector not included)

(Note) Output code and sample rate are configurable at user side by switch integrated.

■Features

・extremely high resistant to harsh circumstances due to no electronic parts employed in the sensor

・integrated into hydraulic cylinder and can be used for equipment of such as steel-mill plant

・no wear-out expected since no mechanical contact between sensor-rod and sleeve

・resolution 6.25μm of absolute output, in addition incremental output is prepared.

■Models

◆Sensor

GMR2-SC5R-□-Z□-G□ (SC type)
①　②　③　④　⑤

GMR2-□-Z□-G□
①　③　④　⑤

①sleeve dia ϕ18 type
②cable duct mount type (cable direction radial)
③stroke (unit 0.1mm, multiple of 25.6)
④Z dimension (unit 0.1mm)
⑤cable length (unit 1m)

◆Cotroller

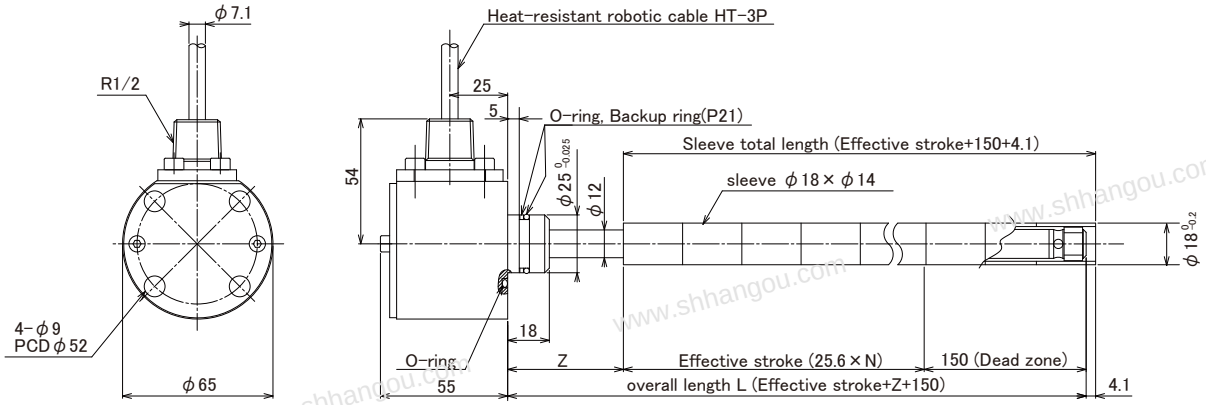
GMRC-201SC-□□-□ (SC type)
①　②③　④　⑤

GMRC-2□□-□□-□
①　②　④　⑤

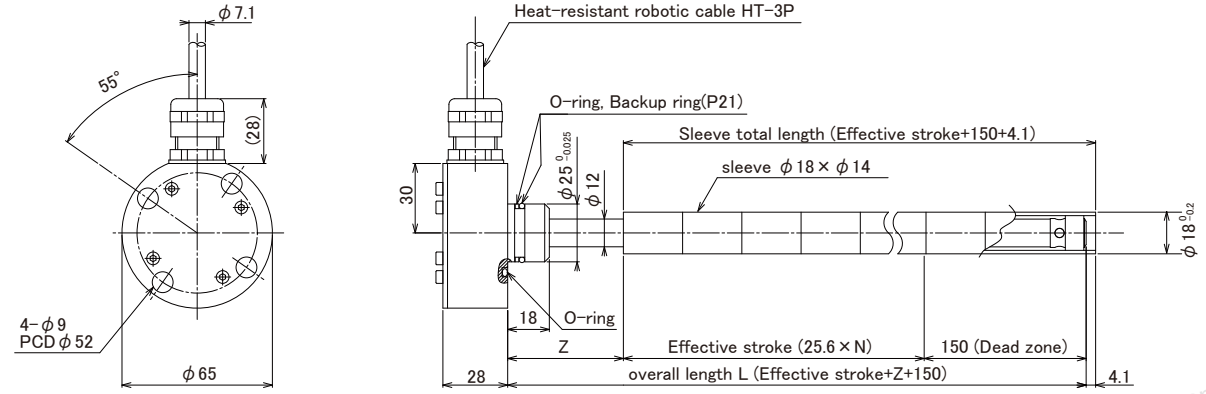
①GMR2 controller
②output 01:pararell 02:parallel/incremental
③for SC5R type sensor
④resolution UF:6.25μm
⑤code B:binary G:gray

■Dimensions

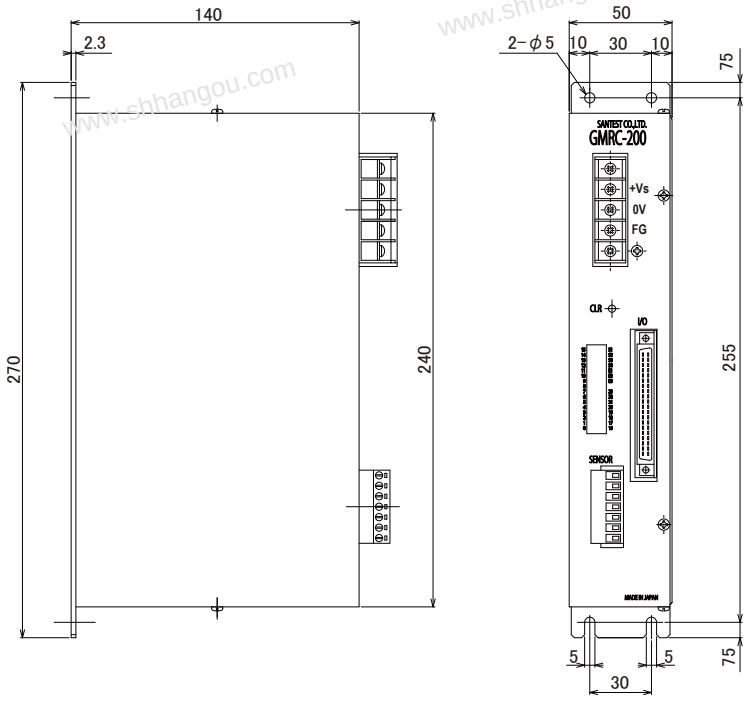
◆GMR2-SCR5 sensor



◆GMR2 sensor



◆GMRC controller (SC type is also same shape)



It makes Technological Sense
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