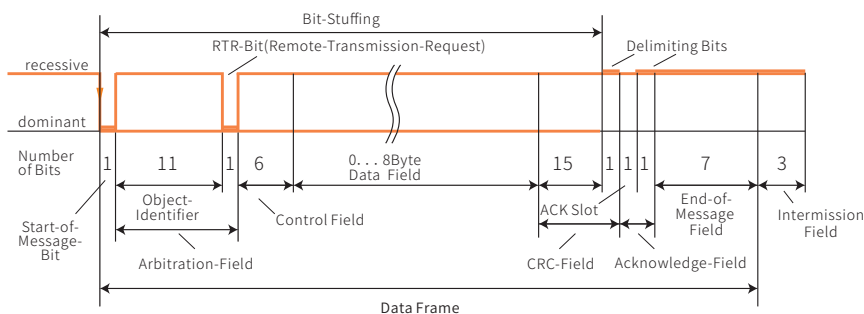




# GUC2800 (C)-CANopen

## GUC2800(C)-Mine intrinsic safety type



- + High vibration and shock resistance performance.
- + Compact design: suitable for applications with strict space requirements for the installation of electronics housing, extensive applications in construction machinery.
- + Robust and durable, fully enclosed design, highest IP68 protection level
- + Linear measurement, absolute value output without zeroing
- + Easy to use, standard single output, maintenance-free
- + Maximum durability, continuous non-contact
- + Full scale adjustable, 100% adjustable zero and full scale



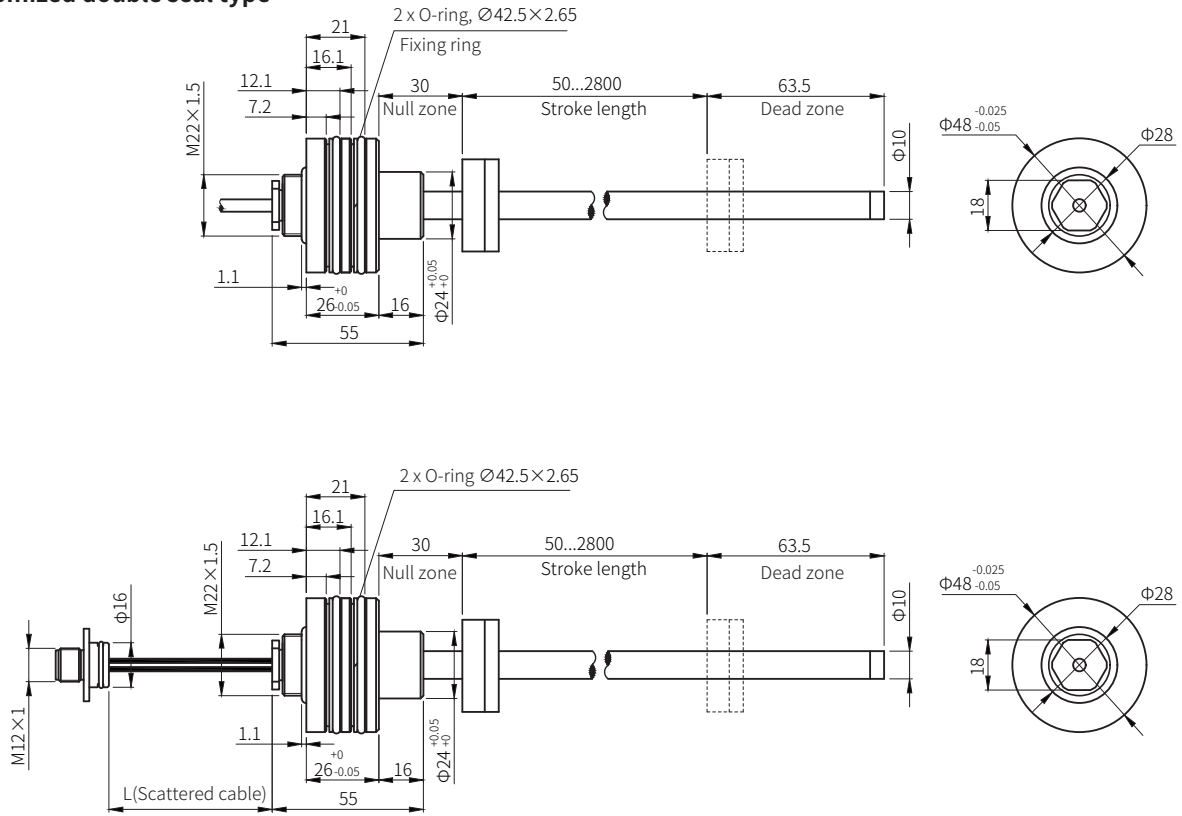
Document Number:  
GUC2800(C)-C (V1.1)-EN

## TECHNICAL PARAMETER

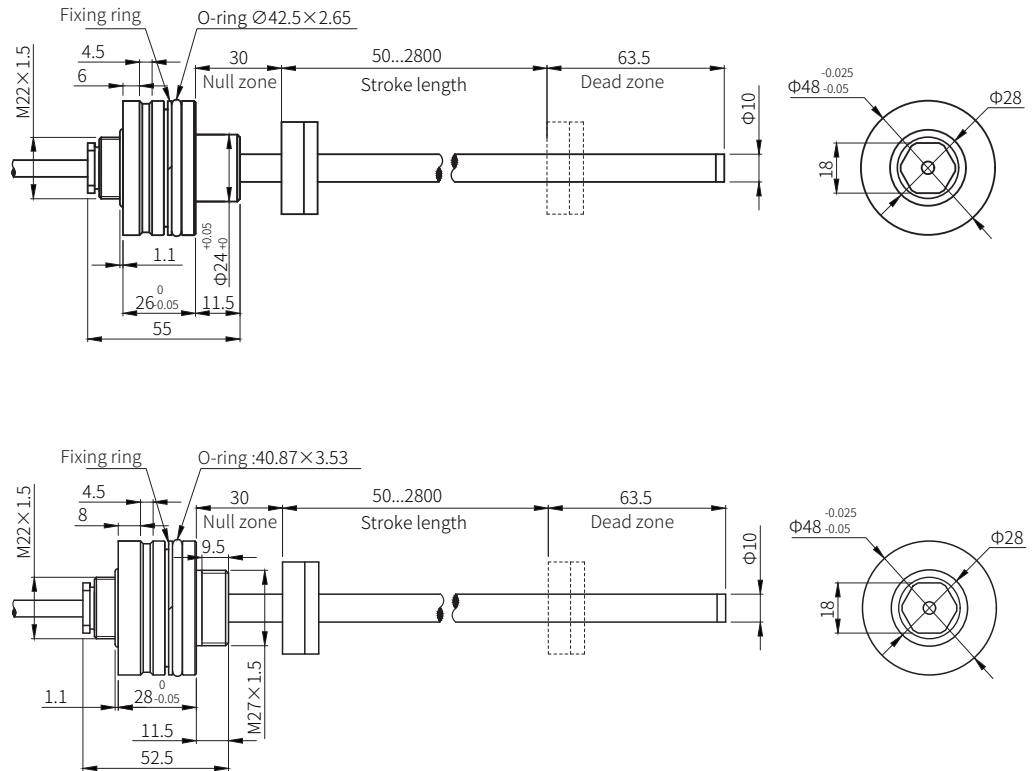
Input									
Measured data	Position								
Measurement range	50mm...2800mm								
Output									
Communication protocols	CAN bus system protocol, ISO11898 CANopen CIA standard DS-301 V3.0 encoder profile DS-406 V3.1								
Transmission rate	10 kbps ... 1Mbps								
Resolution									
Resolution	1 0 0 μ m								
None-Linearity	< ±0.05%F.S.								
Repeatability	< ±0.05%F.S.								
Update time	<table border="1"> <thead> <tr> <th>Stroke length</th> <th>≤ 1200mm</th> <th>≤ 2400mm</th> <th>≤ 2800</th> </tr> </thead> <tbody> <tr> <td>Update time</td> <td>0.5ms</td> <td>1ms</td> <td>1.5ms</td> </tr> </tbody> </table>	Stroke length	≤ 1200mm	≤ 2400mm	≤ 2800	Update time	0.5ms	1ms	1.5ms
Stroke length	≤ 1200mm	≤ 2400mm	≤ 2800						
Update time	0.5ms	1ms	1.5ms						
Temperature coefficient	< 30ppm/°C								
Mounting									
Mounting position	Any								
Mounting form	Extrusion mounting								
Design/Material									
Electronics housing	Stainless steel 304								
Measuring rod	Stainless steel 304/316L								
Magnet	Standard magnet								
Operating pressure	35MPa (continuous), 70MPa (peak)								
Electrical connection									
Wiring connection	Straight out cable, 5 pin connector								
Operating voltage	+12VDC (-15/+20%)								
Polarity protection	Up to -36VDC								
Overvoltage protection	Up to +36VDC								
Power consumption	≤ 70mA								
Dielectric strength	500 VDC (DC ground to machine ground)								
Operating conditions									
Magnet velocity	Any								
Operating temperature	0...40°C, -30...80°C ( Customizable)								
Humidity	90 % relative humidity, no condensation								
Ingress protection	IP68 ( Customizable)								
Explosion-proof type	Mine intrinsic safety type								
Explosion-proof mark	Ex ib I Mb								
Shock	100 g/11 ms, IEC standard 60068-2-27								
Vibration	15 g/10...2000 Hz, IEC standard 60068-2-6 (resonant frequencies excluded)								
EMC	Electromagnetic emission according to EN 61000-6-3 Electromagnetic immunity according to EN 61000-6-2								

# TECHNICAL DRAWING

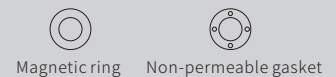
## Customized double seal type



## Thimble type



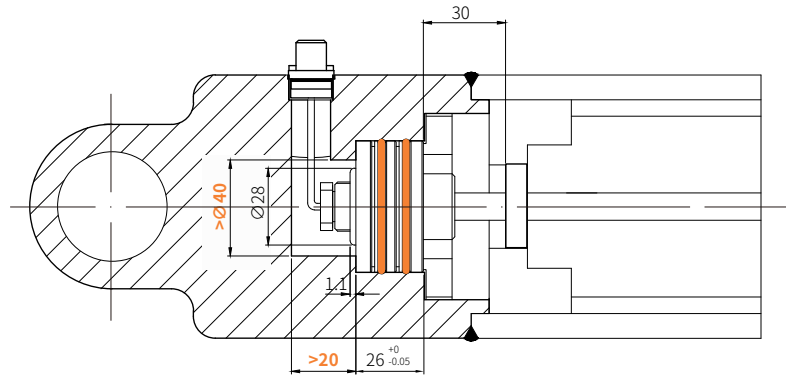
For selection of supporting magnetic rings and non-permeable gaskets, please refer to the attachment for details.



## MECHANICAL MOUNTING DIAGRAM

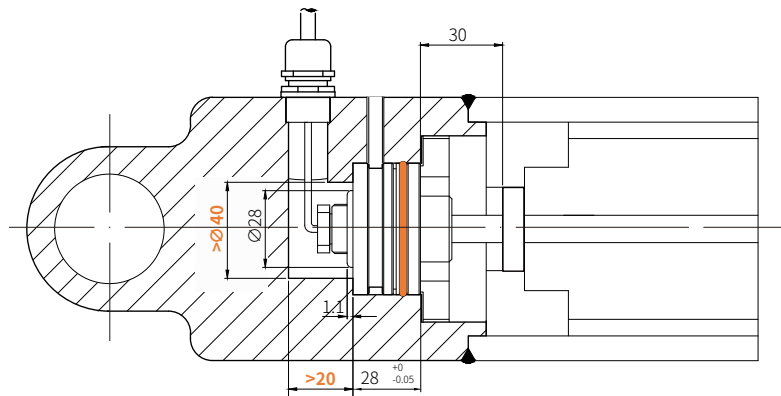
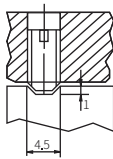
- + Secure the magnet with non-permeable gasket.
- + The size of hole in the piston rod depends on factors such as hydraulic pressure and piston speed. The minimum hole size is  $\Phi 10$  ( $\Phi 7$  measuring rods) or  $\Phi 13.5$  ( $\Phi 10$  measuring rods).
- + The top mounting hole of the cylinder is greater than 40mm in diameter and 20mm in depth.
- + The thimble is made of flat head top wire, and the force distance is  $< 0.5\text{N}\cdot\text{m}$ .

### Customized double seal type



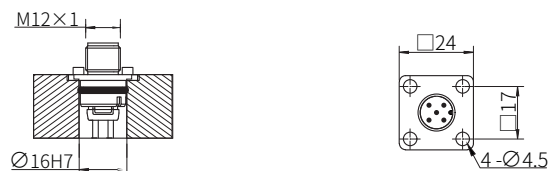
### Thimble type

e.g. retaining with set screw DIN913  
M5x10(with flat point!)  
max. torque 0.5Nm

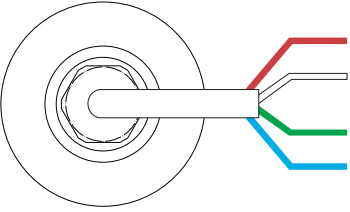


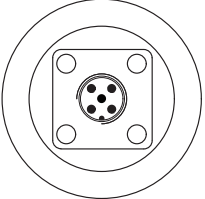
### M12 connector

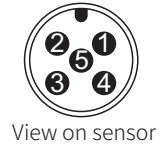
4 single lines,  $0.5\text{mm}^2$



# Wiring

Straight out cable	Color	Function
	Red	+12VDC (-15/+20%)
	White	0 VDC(GND)
	Green	CAN L
	Blue	CAN H

5 pin M12 connector	PIN	Color	Function
	1	-	NC
	2	Brown	+12VDC (-15/+20%)
	3	White	GND
	4	Yellow	CAN-H
	5	Green	CAN-L



## ORDER CODE

GUC2800(C)- - - - M - - - - C - - - -

Mounting	Stroke length	Connection type	Output (Output Code)
C Customized double seal type	0050...2800mm	RX__ Straight out __m coal safety cable	
R Customized double seal type,with M4x6 thread	(5mm increments)	(If the cable length is less than two digits, add zeros in front.)	
K Thimble type		DS__ straight out __mm cable, with 5 pin	
N Thimble type,with M27x1.5 thread		aviation plug	
		unit: 10 millimetre; 01=10mm, 02=20mm...99=990mm)	

CANopen Output Code	C[1][2][3][4][5]	Note: “*” as default
<b>[1] Resolution ratio</b>	<b>[2] Baud rate</b>	<b>[3] PDO cycle</b>
5 100µm	0 1000kBit/s 1 800kBit/s 2 500kBit/s 3 250kBit/s 4 125kBit/s	5 100kBit/s 6 50kBit/s 7 20kBit/s 8 10kBit/s
		1 1ms 2 10ms* 3 100ms 4 Customizable (1-65535ms)
		<b>[4][5]Node-ID</b>
		01 Hexadecimal 01...7F . . . 7F

Model: GUC2500(A)-C-0100M-RX05-C5017F

Explanation: GUC2500(A) mine intrinsically safe displacement sensor, mounting thread metric M24x1.5, range 100mm, straight out 5m coal safety cable, CANopen protocol, resolution 100µm, baud rate 1000kBit, PDO cycle 1ms, node ID 7F.

### Model selection

Model: GUC2800(C)-C-0100M-RP10-C5017F

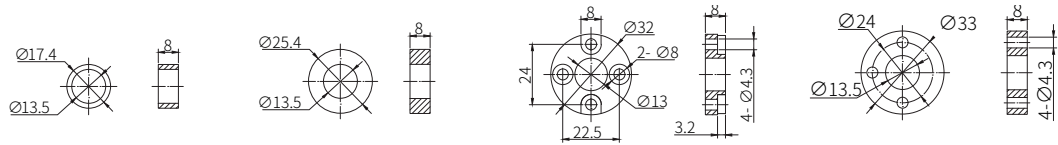
Explanation: GUC2800(C) series magnetostrictive displacement sensor, customized double seal type, range 100mm, straight out 10m coal safety cable, CANopen protocol, resolution 100µm, baud rate 1000kBit, PDO cycle 1ms, node ID 7F.

**\*This product is a mining product, the model must be GUC2800 (C), please refer to the selection code when ordering.**

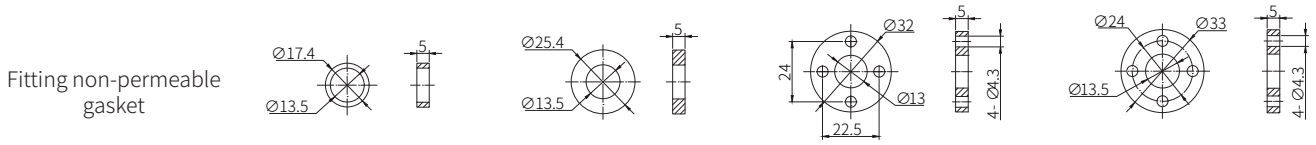
更多定制类型请  
联系特倍福公司



# PARTS SELECTION



Name	Ring magnet	Ring magnet	Ring magnet	Ring magnet
Operating temperature	-40...125°C			
<b>Order code</b>	<b>12-1032</b>	<b>12-1019</b>	<b>12-1024</b>	<b>12-1001</b>



Name	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket
Operating temperature	-40...125°C			
<b>Order code</b>	<b>12-1037</b>	<b>12-1021</b>	<b>12-1025</b>	<b>12-1008</b>

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