

SGM-PR50

Miniature hex-head rod type

Compact size and high reliability, suitable for hydraulic cylinders with limited space. measuring range 25-4000mm, analog/RS485 output, 35MPa(continuous) 70MPa(peak).

Features

Secure and Reliable – dirt- and corrosion-resistant

Easy to Diagnose – LED real-time status display

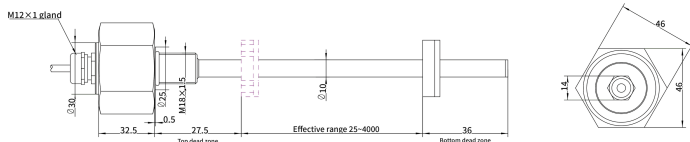
Non-Contact Measurement – never wears

Modular Design – easy replacement

Absolute Position Output – no re-homing required

Low-Power Design – reduces system power consumption

High-Resolution 16-Bit D/A Analog Output



Outline (dimensions in mm)

Specifications

Performance	
Measuring range	25–4000 mm
Output signal	0-20mA(max/min load 0/500Ω) / 4-20mA(max/min load 0/500Ω) / 0-10V(min. load >5KΩ) / RS485(MODBUS RTU)
Resolution	16-bit D/A
Repeatability	±0.005mm
Update time	<5ms(depending on range) / 1ms(1m<range<2m) / 2ms(2m<range<3m) / 5ms(3m<range<4m)
Operating conditions	
Magnet speed	Any
Operating temperature	-40~+85°C
Storage temperature	-55~+85°C
Humidity	90 % PR10, non-condensing
Temperature coefficient	<30ppm/°C
Protection class	IP68

Orderable range as listed; longer ranges and special temperature or pressure versions on request.

Electrical connection

Analog connector pinout (4-pin)

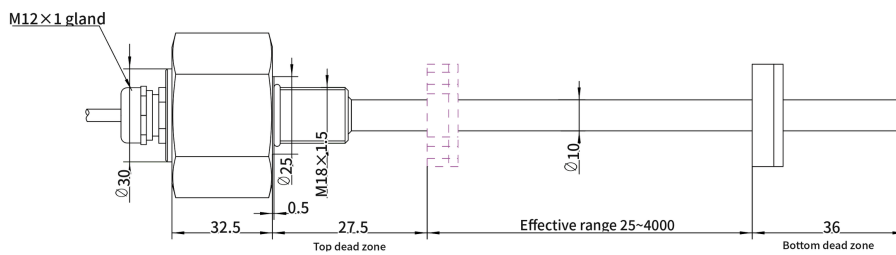
1	Power +12V
2	Power - (GND)
3	Analog output +
4	Analog output -

Mounting	
Mounting orientation	Any
Mounting	M18*1.5 or custom
Position magnet	Ring magnet or float
Electrical	
Electrical connection	M12*1 waterproof connector or direct cable
Supply voltage	24VDC (±20%)
Current consumption	<60mA(depends on range)
Reverse-polarity protection	Max. -30VDC
Over-voltage protection	Max. 36VDC
Insulation strength	500VDC
Materials	
Sensor head	304 stainless steel
Protective tube	304 stainless steel
Mounting flange	304 stainless steel

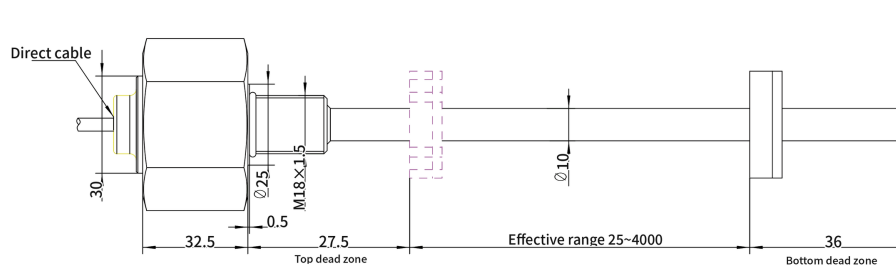
RS485 connector pinout (4-pin)

1	Power +12V
2	Power - (GND)
3	RS485-A
4	RS485-B

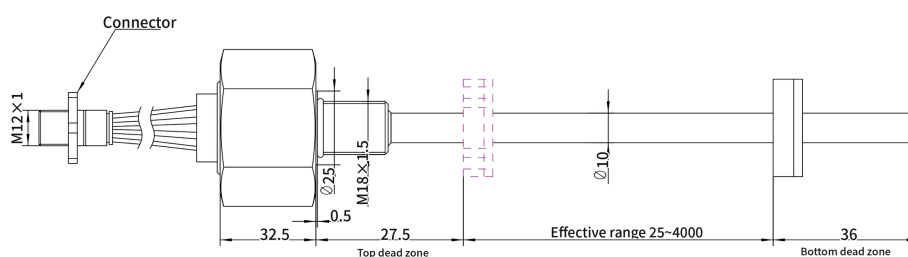
Dimensions (mm)



Technical drawing: M12×1 waterproof gland version, side + end view



Technical drawing: direct cable version, side + end view



Technical drawing: connector

Range figures in drawings are illustrative; the orderable range is given in the specifications.

Ordering code

SGM-PR50-<mounting>-<range>-<output>-<connection>[-options]

Mounting			
18	M18×1.5	V1R	0–10 V reversed (10–0 V), zero at head
XX	Custom thread	V2F	0–5 V, zero at rod end
Range		V2R	0–5 V reversed (5–0 V), zero at head
00025–04000	5 digits in mm, 5 mm steps	R4	RS485 (Modbus RTU)
Output		XX	Customer-specified output
I1F	4–20 mA, zero at rod end	Connection	
I1R	4–20 mA reversed (20–4 mA), zero at head	K12	M12 connector
I2F	0–20 mA, zero at rod end	C02 ... C99	Direct cable, number = length in m (C02 = 2 m)
I2R	0–20 mA reversed (20–0 mA), zero at head	...X	Suffix X: customer-specified cable
V1F	0–10 V, zero at rod end	Options	
		(none)	Series standard dead zones
		Z9	Customer-specified dead zones

Outputs or options listed in the specifications but not in the ordering code are available on request.

Ordering examples

SGM-PR50-18-00250-I1F-C03 250 mm, 4–20 mA, 3 m cable

Specifications are subject to change; final values are confirmed with the order.