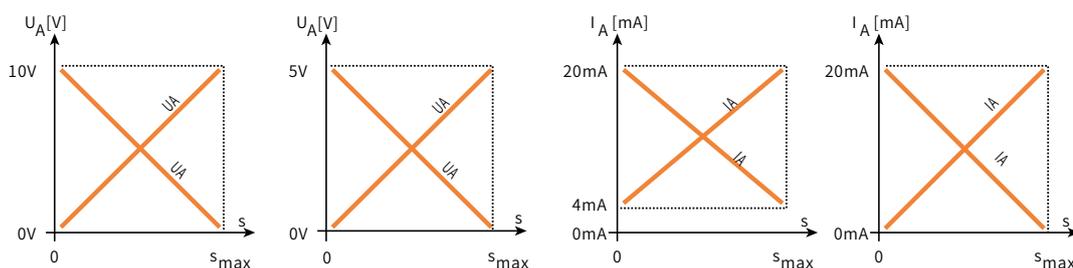




CHR -Analog

CHR-Flameproof displacement sensor



- + Maximum durability, continuous non-contact
- + The isolated explosion-proof type is suitable for explosion-proof occasions
- + Dirt-proof, dust-proof and waterproof
- + Easy to use, standard single output, maintenance-free
- + It has the function of reverse polarity protection
- + Anti-lightning strike, anti-RF interference



MAGNETOSTRICTIVE SENSOR

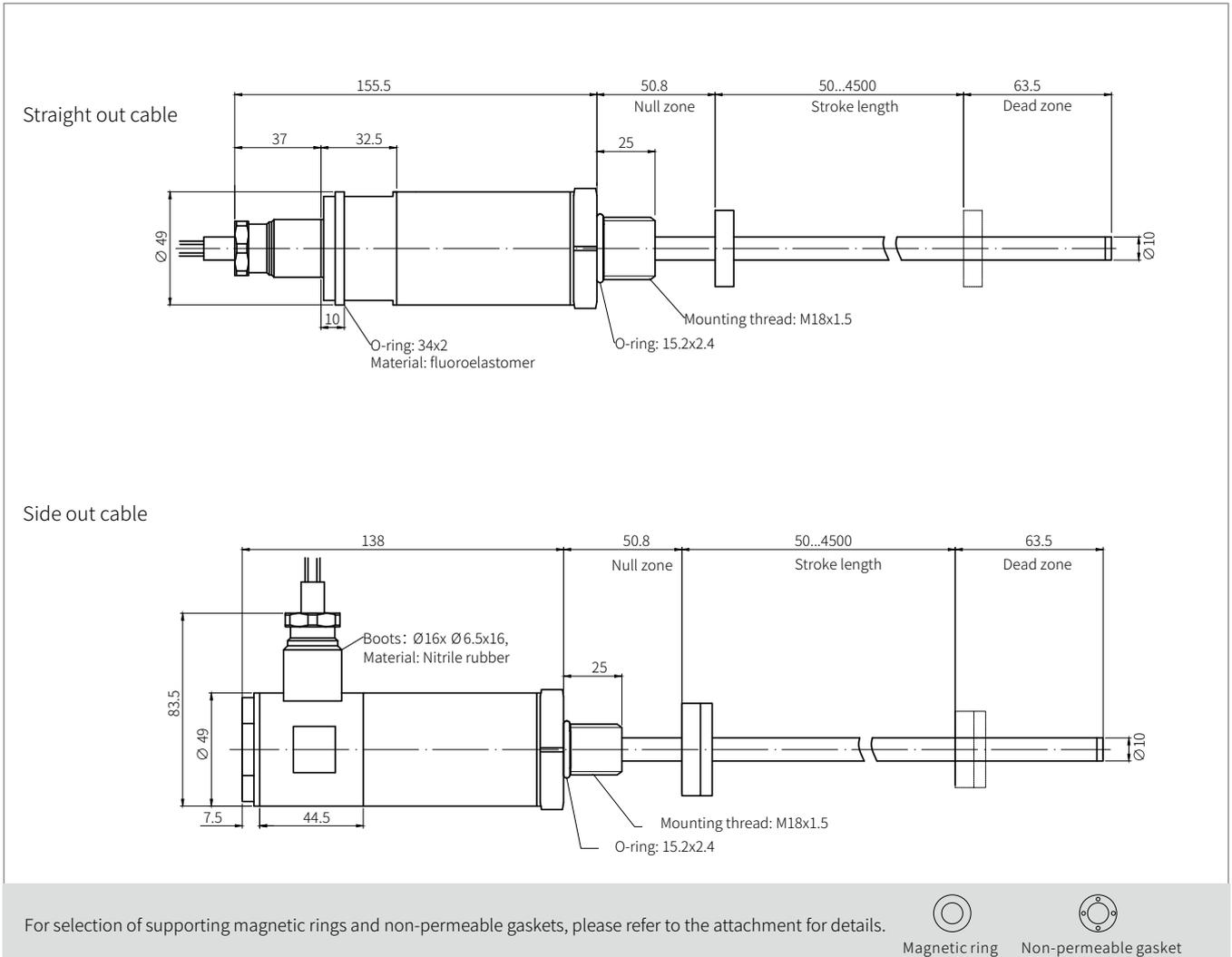
Document Number:

CHR-A(V1.1)-EN

TECHNICAL PARAMETER

Input									
Measured data	Position								
Measurement range	50mm...4500mm								
Output									
Voltage	0...10VDC, 10...0VDC, 0...5VDC, 5...0VDC (Controller min. load impedance >5K Ω)								
Current	4...20mA, 20...4mA, 0...20mA, 20...0mA (min./max. load 0/750 Ω)								
Resolution									
Position resolution	16 bit D/A								
None-Linearity	< $\pm 0.02\%$ F.S. (min $\pm 50\mu\text{m}$)								
Repeatability	< $\pm 0.005\%$ F.S. (min $\pm 20\mu\text{m}$)								
Update time	<table border="1"> <thead> <tr> <th>Stroke length</th> <th>$\leq 1200\text{mm}$</th> <th>$\leq 2400\text{mm}$</th> <th>$\leq 4500\text{mm}$</th> </tr> </thead> <tbody> <tr> <td>Update time</td> <td>0.5ms</td> <td>1ms</td> <td>2ms</td> </tr> </tbody> </table>	Stroke length	$\leq 1200\text{mm}$	$\leq 2400\text{mm}$	$\leq 4500\text{mm}$	Update time	0.5ms	1ms	2ms
Stroke length	$\leq 1200\text{mm}$	$\leq 2400\text{mm}$	$\leq 4500\text{mm}$						
Update time	0.5ms	1ms	2ms						
Temperature coefficient	< 30ppm/ $^{\circ}\text{C}$								
Mounting									
Mounting position	Any								
Mounting	M18x1.5, M20x1.5, Customizable								
Design/Material									
Electronics housing	Stainless steel 304								
Measuring rod	Stainless steel 304/316L								
Magnet	Standard magnet								
Electrical connection									
Wiring connection	Straight out cable								
Operating voltage	+24VDC (-15/+20%)								
Polarity protection	Up to -36VDC								
Overvoltage protection	Up to +36VDC								
Power consumption	< 70mA (varies with range size)								
Dielectric strength	500 VDC (DC ground to machine ground)								
Operating conditions									
Magnet velocity	Any								
Operating temperature	-40...85 $^{\circ}\text{C}$								
Humidity	90 % relative humidity, no condensation								
Ingress protection	IP68 (customizable)								
Shock	100 g/11 ms, IEC standard 60068-2-27								
Vibration	15g/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								
Explosion-proof mark	Ex db IIC T5 Gb								

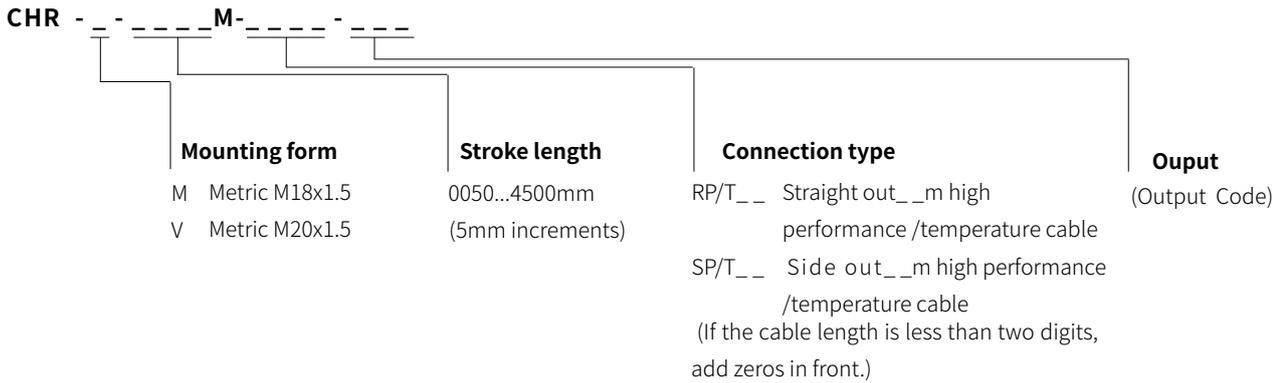
TECHNICAL DRAWING



Wiring

Straight out cable	Color	Function
	Green	Signal output
	Brown	+24VDC (-15/+20%)
	White	GND
External calibration function	Color	Function
	Green	Signal output
	Yellow	SGND
	Brown	24VDC(-15/+20%)
	White	GND
	Gray	Prog

ORDER CODE



Analog Output Code [1][2][3]

[1] [2] Output	[3] Magnet
A0 4...20mA (forward) V0 0...10V (forward)	1 one magnet
A1 20...4mA (reverse) V1 10...0V (reverse)	2 two magnets
A2 0...20mA (forward) V2 0...5V (forward)	
A3 20...0mA (reverse) V3 5...0V (reverse)	

Note: forward, data grows larger when the magnet is distant from the electronics housing;
reverse, data grows larger when the magnet approaches the electronics housing.

* If you need the external calibration function, please fill in -W at the end

* K=Anti-vibration program (If there are special needs, please fill in the end of the model number.)

Model selection

Model: CHR-M-0600M-RP05-A01-W

Explanation: CHR flameproof magnetostrictive displacement sensor, mounting thread metric M18x1.5, stroke length 600mm, straight out 5 m high performance cable, 4...20mA (forward), single magnet, external calibration function is added.



ACCESSORIES

Analog

Name	Ring magnet	Ring magnet	Ring magnet	Ring magnet
Operating temperature	-40~125°C			
Order code	12-1032	12-1019	12-1024	12-1001
Non-permeable gasket				
Name	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket	Non-permeable gasket
Operating temperature	-40~125°C			
Order code	12-1037	12-1021	12-1025	12-1008

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