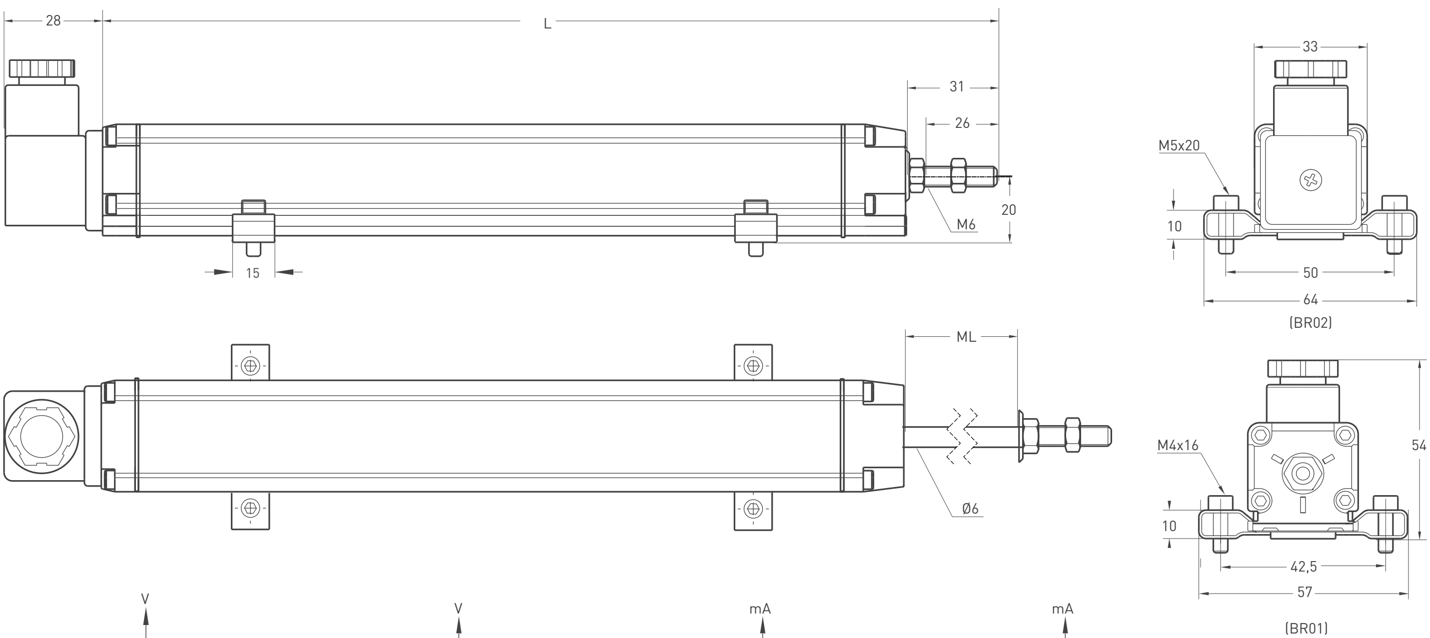
MSR

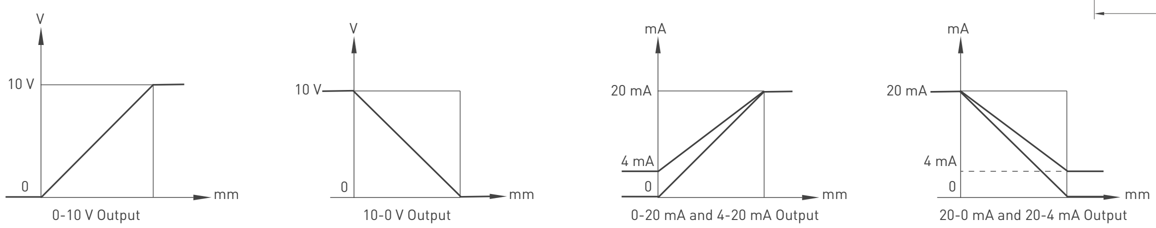
Magnetostrictive Position Sensor

- Measuring length 50 - 1000 mm
- 16 bit resolution
- Single - double output options

Technical Specifications	
Measurement stroke	50 to 1000 mm
Resolution	16 bit DAC output
Linearity	50-100 mm < %1, 100-300 mm < %0.2, 300-500 mm < %0.1, 500-1000 mm > %0.05
Repeatability	100 µm
Output	0-10V, 10-0V, 0-20 mA, 20-0 mA, 4-20 mA, 20-4 mA
Power supply	24 VDC ±10%
Displacement speed	max. < 5 m/s
Update time	(0-600mm, 0,5ms) , (601-1000mm,1ms)
Max. consumption	50 mA - 90 mA (depending on stroke length)
Max. output noise	< 5 mVpp
Max. output value	10,5 V
Reverse polarity protection	Up to -30 VDC
Overvoltage protection	Up to +30 VDC
Vibration	EN 60068-2-6 , 5-200 Hz 200 m/s2 (20g) , 2h 30min each axis (x,y,z)
Shock	EN 60068-2-2:2007 500 m/s2 (50g) , 11ms. (x,y,z axis)
Case dimensions	33 mm x 33 mm
Case material	Anodized aluminium
Rod material	Stainless steel
Rod diameter	Ø6 mm
Mechanical fixing	Variable brackets
Protection level	IP 65
Operating temperature	-10°C ... +70°C
Storage temperature	-30°C ... +90°C

Mechanical Specifications





MSR (mm)	50	100	150	200	250	300	350	400	450	500	550	600	650	700	750	800	850	900	1000
ML ±0.5 (Measuring Length)	55	105	155	205	255	305	355	405	455	505	555	605	655	705	755	805	855	905	1005
L ±0.5 (Total Length)	281	331	381	431	481	531	581	631	681	731	781	831	881	931	981	1031	1081	1131	1231

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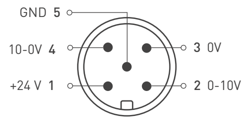
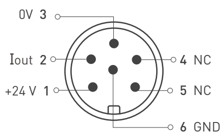
Round Connector

5 pin Connector
configuration



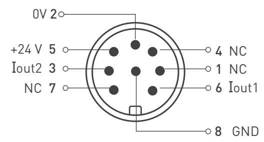
CN5 M12 (A) / M16 (B)
5 pin

6 pin Connector
configuration

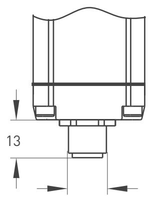


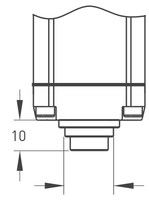
CN6 M12 (A) / M16 (B)
6 pin

8 pin Connector
configuration



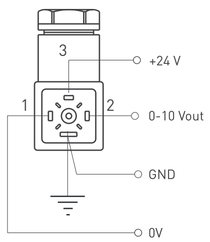
CN8 M12 (A) / M16 (B)
8 pin





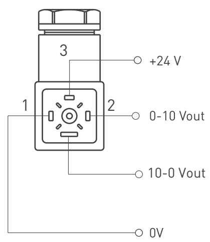
Hydraulic Type Connector

CH1



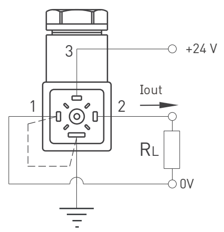
0-10V or 10-0V Output

CH1



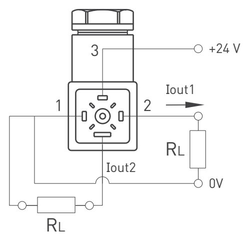
0-10V and 10-0V Output

CH1



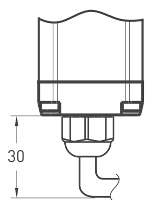
0-20mA or 4-20mA Output

CH2



0-20mA and 4-20mA Output

Cable



Voltage Output

+V : Brown
0V : Blue
0V Sense : Black
Output 1 : White (0-10V)
Output 2 : Orange (10-0V)
Earth : Shield

Current Output

+V : Brown
0V : Blue
0V Sense : Black
Output 1 : White (Iout1)
Output 2 : Orange (Iout2)
Earth : Shield

Cable Length

1M : 1meter (standard)
(Different cable lengths available)

Ordering Procedure

Model	Measurement stroke	Resolution	Output	Connector / Cable	Bracket
MSR	300	A	V10	CH1	BR02
MSR	50 - 1000 mm	A: 16 bit B: 15 bit C: 14 bit D: 13 bit E: 12 bit	V10 :0-10V 2V10 :0-10V/0-10V V01 :10-0V 2V01 :10-0V/10-0V V11 :0-10V/10-0V V50 :0-5V 2V50 :0-5V/0-5V V05 :5-0V 2V05 :5-0V/5-0V V51 :0-5V/5-0V I40 :4-20mA 2I40 :4-20mA/4-20mA I04 :20-4mA 2I04 :20-4mA/20-4mA I41 :4-20mA/20-4mA I20 :0-20mA 2I20 :0-20mA/0-20mA I02 :20-0mA 2I02 :20-0mA/20-0mA I21 :0-20mA/20-0mA	CH1 : 4 pin, hydraulic type connector(big) CN5A : 5 pin, M12 connector CN5B : 5 pin, M16 connector CN6A : 6 pin, M12 connector CN6B : 6 pin, M16 connector CN8A : 8 pin, M12 connector CN8B : 8 pin, M16 connector 1M: 1 meter 2M5: 2,5 meter	BR01 BR02

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