

Art.Nr. / PNR / Ordercode 9350.01.127



- 100 Inkremente / 100 increment manual Pulse generator
- Ein Gerät und mehrere Schnittstellen / one unit but several Interface
- Steckeranschluss / Connector interface
- Strombedarf max. 70mA / Current consumption max. 70mA
- Taktfrequenz max. 5kHz / Scanning frequency max. 5kHz
- Ausgangssignal kann eingestellt werden / Output Signal switchable
- Auflösung max. 1% / Resolution max. 1%
- Drehkraft am handrad / Torque < 0.2Nm
- Klick Kraft / Torque Click Point 8 Ncm
- Einsatztemperatur / Operating temperature – 10°C to +70°C
- CE confirm EN 61000-6-2, EN 61000-6-3 and EN 61000-6-4
- RoHS – conform EG 2002/95/EG
- Gewicht / Weight 200g

Anwendungen / Applications



- CNC Maschinen Hersteller / CNC Machine maker, integration in the user panel
- Holzbearbeitungsmaschinen / Wood handling machine line
- Allgemeine Handhabungsgeräte / Baggage handling machine line
- Papiermaschinen bzw. Strassen / Paper handling machine line
- Teleskope, Mikroskope etc. / telescope movement

Technische Daten / Technical data

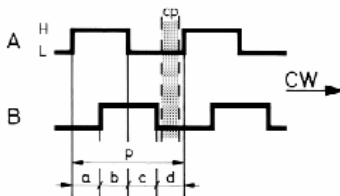
Stromverbrauch	Current consumption	max. 70mA
Abtastfrequenz	Scanning frequency	max. >5 kHz
Ausgangsspannung RS 422	Output current RS 422	Zw. 0 und/and +4.8V immer vorhanden / always available
Ausgang A und B umschaltbar VCC	Output A and B switchable	Zw. 0 und/and +5V oder/or zw. 0 und/and
Signalpegel	Output voltage	Vcc -0.7V
Auflösung	Resolution	1% = 3.6°
Drehmoment	Torque	<0.2Ncm
Rastmoment (Click point)	Torque (click point)	8Ncm
Lebensdauer	Rotation life (Notched disc)	1.10 <sup>6</sup> Umdr. (200 rpm)
Arbeits- / Lagertemperatur	Operating- / Storage temperature	-10°C +60°C / -20°C +70°C
Luftfeuchtigkeit	Atmospheric humidity	85% RH
Vibration / Schock	Vibration / Shock	10...55 Hz 1.5mm 2hr / 50G (11ms) X, Y, Z
Gewicht	Weight	200g

Schaltereinstellungen / Switch Configuration

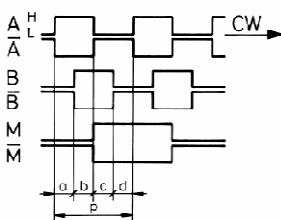


Ausgangskanäle / Output channels

cp = Rasterabstand / Click point

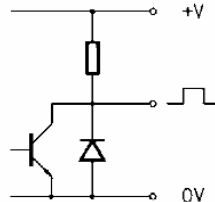


Line driver (RS 422 A)

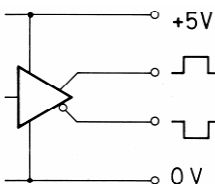


Ausgangstreiber / Output driver

Pull up (2 K0 intern)

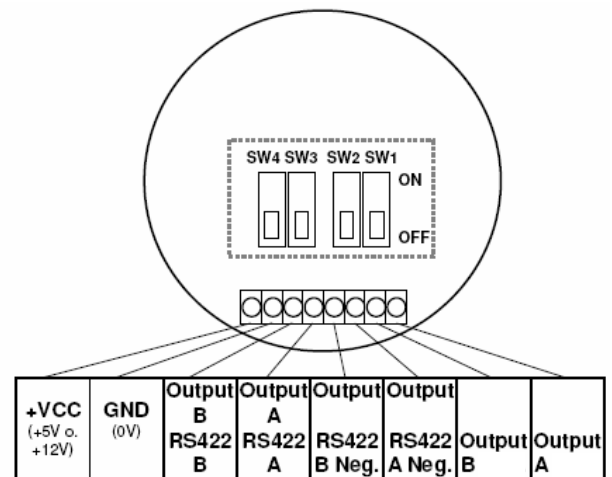


Line driver (RS 422 A)



Anschlüsse / Connection

Schraubklemme / Terminal block



Every MR 190 unit is supplied with Phoenix Combicon Compact series Screw-Clamp Terminal Block Plug ([www.phoenixcontact.com](http://www.phoenixcontact.com))  
 Phoenix order No. 1984076

No.(X)	Schalter SW1.....SW4				VCC	RC	Ausgang Spannung Max		
	SW1	SW2	SW3	SW4			A	B	
1	OFF	OFF	OFF	OFF	4.9->5.3V	326 Ohm	4V	4V	P + L
2	OFF	OFF	OFF	OFF	11.9->12.5V	326 Ohm	4V	4V	P
3	OFF	ON	OFF	ON	4.9->5.3V	2 KOhm	4V	4V	P + L
4	OFF	ON	OFF	ON	11.9->12.5V	2 KOhm	4V	4V	P
5	ON	OFF	ON	OFF	4.9->5.3V	390 Ohm	4V	4V	P + L
6	ON	OFF	ON	OFF	11.9->12.5V	390 Ohm	4V	4V	P
7	ON	ON	ON	ON	4.9->5.3V	2 KOhm	4V	4V	P + L
8	ON	ON	ON	ON	11.9->12.5V	2 KOhm	11V	11V	P

P = Pull up;

L = Line driver



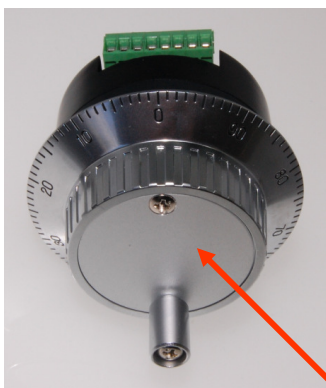
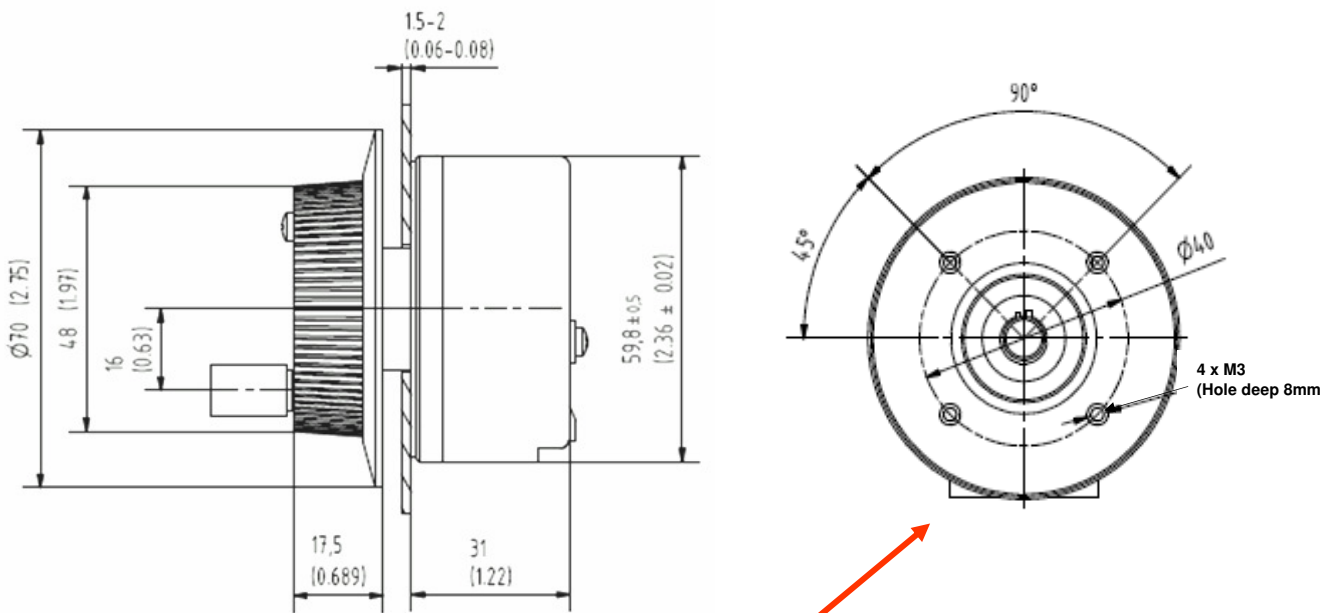
= Werkseinstellung / factory setting

Art.Nr. / PNR / Ordercode 9350.01.127

Einstellungen am MR190 für die abgelösten Handeingabegeräte / Configuration for old types of Handy-Pulser

Alte Typ / Old Type	Schalter Einstellung/ Switch Configuration
ESM70	3 (MR190.3)
ESM72	8 (MR190.8)
ESM74	7 (MR190.7)
ESM80 FANUC	1 (MR190.1)

Massbild / Outline drawing



Platz für Kundenlogo / Space for Customer LOGO

**Connector:**  
 Phoenix Compact  
 Screw-Clamp Terminal Block Plug  
 Model PT 1,5/8-PVH-3.5 order Nr. 1984076



Order No.

MR190.7

100ppr Digital Handwheel, Universal, 5/12V Operation, RS422 + OC Outputs

SPecifications subject to change without prior notice