

## Resolverunit + Input ratio

Serie **FR 90**

- Resolver Harowe or other size 11 or size 15
- Resolver MICRONOR Typ R 3616 or R3620
- Input ratios 1 : 1 ... 10 : 1 (step down)
- Input ratios 1 : 1 ... 1 : 6 (step up)
- Rotor without slots for higher resolution
- Zero voltage signal lower than 0,01 %
- Single step transformer with more output power
- Protection
- Incl. tacho

## How to order

Type 1

Type 2

Straight plug

## Resolverunit + Input ratio

FR90.R1 / 2:1.S.D16 (2xHarowe size 11)

FR90.R1 / 2:1 R2 / 3:1.S.D16 (Micronor/Harowe size 11)

SGS12.PG9

## Selecting table

FR90.R1 / x.x.x.xType  
DimensionFE  
DIA. 3.54 inchResolver R1 (and / R2)  
TypeR1 Harowe size 11  
11BRCX-300-AR2 MICRONOR  
R 3616Accuracy Standard  
Accuracy (On request)±7 Min.  
/60 Min.  
+/- 20 Min.

## Mechanical data Resolver

Operating temperature

-20 °C +85 °C

-60 °C +155 °C

Weight

98 g

~ 95 g

Cable length

11.8 inch

11.8 inch

Maximum speed

5000 rpm

50'000 rpm

## Electrical data

Excitation amplitude

7,5 Vrms

4 ... 12 Vrms

Secondary DC resistance

/

24,4 Ω

Primary DC resistance

/

17,7 Ω

Excitation frequency

4000 Hz

6 ... 12 kHz

Transformation ratio

0,54 ±10 %

0,5

Zero voltage

20 mV

&lt; 0,01 %

## Input ratios (Shaft : Resolver)

2 / 2,5 / 3 / 4 / 5 / 6 / 6,5 / 7 / 7,666 / 8 / 9 / 10

x : 1 (step down)

## Input ratios (Shaft : Resolver)

2 / 2,5 / 3 / 4 / 5 / 6

1 : x (step up)

## Cable outlet

R axial  
S radial

## Male receptacle

D16 SFP 16 (16 Pin) DIN  
M17 3102 A 20-29 P (17 Pin) MIL

## Cable gland

PG7 PG 9 / PG 11

## Mechanical data Resolver unit

Operating temperature

-20 °C +85 °C

Rotational speed

&lt;6000 rpm

Weight

~750 g

Storage temperature

-30 °C +90 °C

Atmospheric humidity

85 % RH

Shock

294 m/s (Each 3 times)

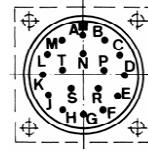
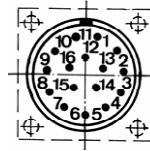
Protection

IP 50 (on request IP 63)

Vibration

10 ... 55 Hz / 1,5 mm 1,2 h

## Electrical connection



## Male receptacle

SFP 16 (16 PIN) DIN

MS 3102 A 20-29 P (17 PIN) MIL

Wire color	Resolver	R1	Pin no.	Pin no.
White/Red	R 1	Rotor	1	A
White / Black	R 2		2	B
Red	S 1	Stator	3	C
Black	S 3		4	D
Yellow	S 2		5	E
Blue	S 4		6	F

Wire color	Resolver	R2	Pin no.	Pin no.
White/Red	R 1	Rotor	7	G
White / Black	R 2		8	H
Red	S 1	Stator	9	I
Black	S 3		10	J
Yellow	S 2		11	K
Blue	S 4		12	L

Insulate unused outputs before initial startup

## Accessories

Hold down clamp

3 x BMF (M3x12 mm)

## Option

Female cable connector straight plug

SGS 16.PG9 (16 Pin) DIN

Female cable connector straight plug

MS 3106 A 20-29 S (17 Pin) MIL

Female right angle connector 90°

MS 3108 B 20-29 S (17 Pin) MIL

## Technical data and accessories

Serie R 3616

## Outline drawing

$\emptyset d = 9\text{-h}8$  (DIA .3543)  $s = 8,5$  (.3346)

$F = \Rightarrow 40\text{ N}$   $\Downarrow 80\text{ N}$  / MS = Mounting surface /  $H = 3.228$  inch

$\emptyset d = 9,52\text{-h}8$  (DIA .3748)  $s = 9,0$  (.3543)

