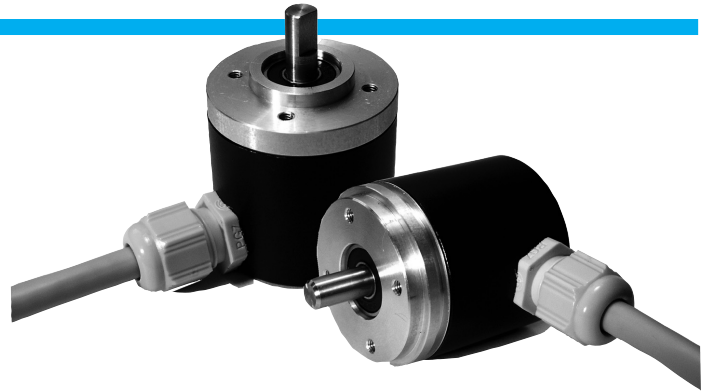


Magnetic incremental encoders MIRC600, 605, 610 and 615

MIRC60x – synchro flange, external diameter of the shaft 6 mm

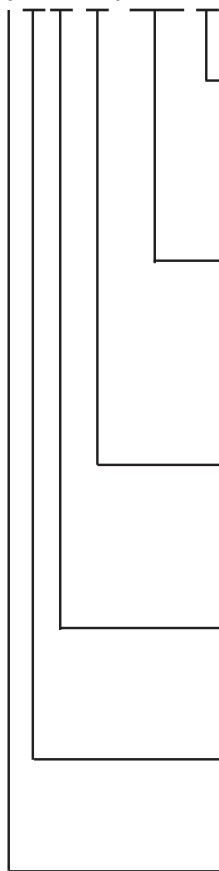
MIRC61x – clamping flange, external diameter of the shaft 6 mm

The magnetic incremental rotary encoders type MIRC600, 605, 610 and 615 working on magnetic Hall Effect principle. The encoder converts rotary motion to electrical incremental signals. Electrical signals provide information of bilateral position of two mechanical parts, angle turn or rotary motion. A typical use is in conjunction with digital control system or drivers for control of the electric motors.



Type identification

MIRC6 X X - X / XXXX X



OUTLET

PA – Cable 1 m axial
PB – Cable 1 m radial
(longer cable on request)

NUMBER OF IMPULSES (PERIODS) PER ROTATION

from 1 to 128 after one pulse, further 256, 512, 1024 with one zero impulse per rotation. Next 200, 250, 400, 500, 2048 are possible for MIRC605 and MIRC615 only

DIAMETER OF SHAFTS

6 – shaft external diameter 6 mm (standard)
4 – shaft external diameter 4 mm (other diameter on request)

OUTLETS IDENTIFICATION

Supply voltage	Outlet
0 – +10 ÷ +30 V	HTL line driver
5 – +5 V	line driver

MECHANICAL SPECIFICATION

0 – synchro flange
1 – clamping flange

TYPE OF ENCODER

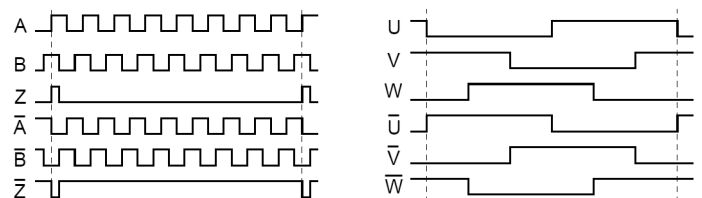
6 – magnetic incremental encoder type MIRC6xx

Mechanical data and working conditions

Rotational speed max.	10000 min. ⁻¹
Angular acceleration max.	40000 rad.s ⁻²
Moment of inertia of mechanical parts max.	10 g.cm ² ± 10 %
Vibration according to FCČSN345791	10g _n (10 to 2000 Hz)
Shock max.	50g _n (100 ms)
Shaft loads MIRC600, 605, 610, 615	
– axial max.	10 N
– radial max.	20 N
Working temperature	– 25° to + 80° C
Humidity relative / absolute	max. 95 % / max. 40 g.m ⁻³
Atmosphere (without aggressive substances)	73,3 to 126,6 kPa
Type of protection	IP65
Weight MIRC600, 605 / MIRC610, 615	ca. 0,15 kg
Length cable max.	50 m

Output signals

MIRC600, 605 / MIRC610, 615



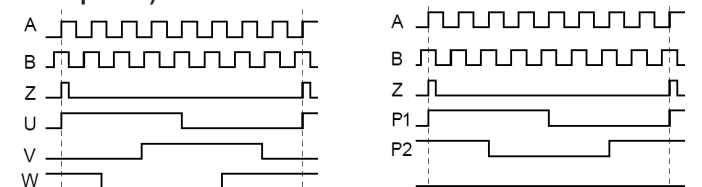
ABZ differential incremental signals

UVW differential commutation signals

Number of incremental impulses (periods) per rotation: from 1 to 128 after one pulse, further 256, 512, 1024 with one zero impulse per rotation. Next 200, 250, 400, 500, 2048 are possible for MIRC605 and MIRC615 only. Resolution in positions = Number impulses per rotation (lines) x 4.

MIRC605 / MIRC615

only and into resolution 1024 impulses (without 200, 250, 400 and 500 impulses)



ABZ incremental / UVW commutation

ABZ incremental signals / period counter

Assembly

The encoders MIRC600 and MIRC605 are installed into appropriate equipment using 4xM3 screws on dia. 26 mm or a groove. The position of the shaft is explicitly determined by a fitted diameter of 33h7. The encod-

continued on next page

Technical data

ELECTRICAL DATE / TYPE	MIRC600, 610	MIRC605, 615
Impulses (periods) per rotation	1 to 1024	1 to 2048
Resolution (positions per revolution) = impulses x 4	Up to 4096	Up to 8192
Supply voltage max. U_N (V)	from +10 to +30	+ 5 ± 5%
Supply current max. I_N (mA)	60@30V	50
Output frequency max. F_o (kHz)	200	
Output max. I_o (mA)	± 25	± 20
Output	HTL line driver	line driver (RS 422)

Description of connection elements MIRC600, 605, 610 and 615

Assembly –
continued from previous page

Colors of connection cable	Significance			
	Incremental	Commutation	Incr./commu.t.	Incr./counter
Grey	B non	V non	V	P2
Pink	Sensor + 10 to + 30 V for MIRC600, 610 Sensor + 5 for MIRC605, 615			
Blue	Z	W	Z	Z
Violet	Z non	W non	W	NC
Yellow	A	U	A	A
White	A non	U non	U	P1
–	NC			
Green	B	V	B	B
Shield	Shield			
Black	GND			
Brown	Sensor 0 V			
Red	$U_N + 10 V$ to + 30 V for MIRC600, 610 $V_{cc} + 5 V$ for MIRC605, 615			

ers MIRC610 and MIRC615 are fixed into the equipment by 2xM3 screws on dia. $22,0 \pm 0,15$ mm. Centering of encoder is determined by mat fits diameter 15h7. The connection has to be constructed so as to avoid exceeding the maximum radial or axial shaft load permitted. It is necessary to keep alignment connection. It is recommended to use suitable homokinetic diaphragm couplings. When temperature is less than -5°C cable must be fixed.

How to order?

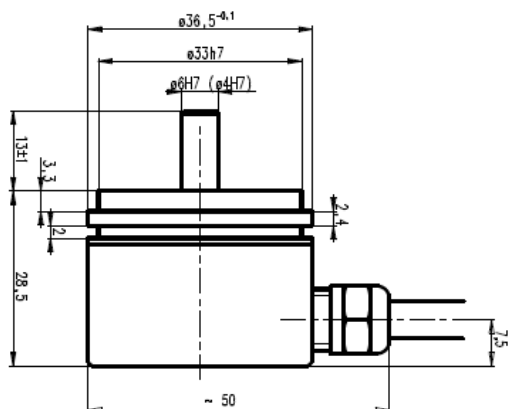
Please indicate encoder type, number of impulses per rotation, outlet, number of pieces, delivery term and other non-standard features. Connecting cable and homokinetic diaphragm couplings can be ordered as well [see Accessories catalogue list].

Example

20 pcs MIRC615/2048PB and 20 pcs coupling SP9. Delivery term – two weeks.

Dimensioned drawing

MIRC600, 605



MIRC610, 615

