

INCREMENTAL ENCODERS

➤ UZ Series

APPLICATION

Servo motor control

FEATURES

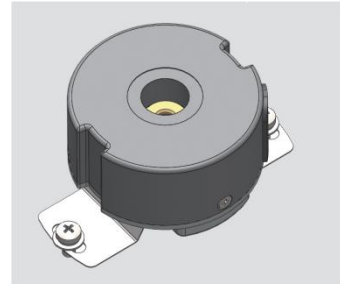
Resolution 1,000-5,000 CPR.

Differential output.

Count Frequency Up To 500 KHZ.

Working temperature -20 °C —+105 °C

Single 5V Supply

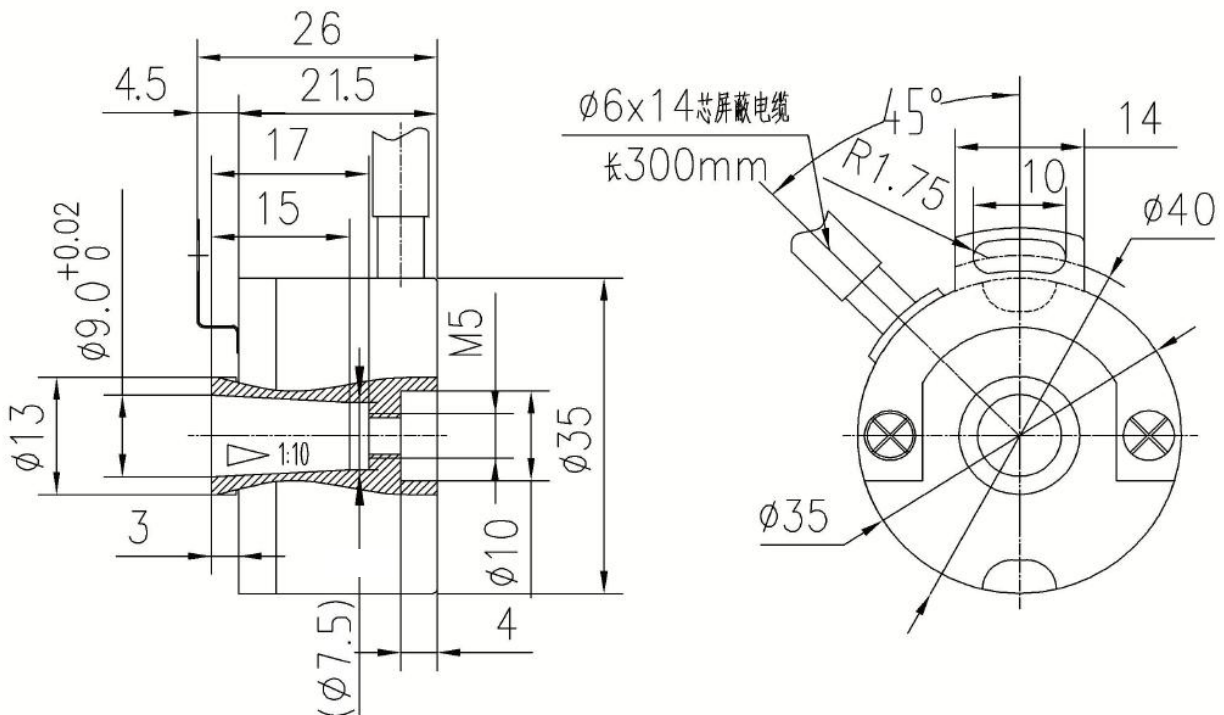


Product Introduction: Well protected, High frequency response, high speed, High reliability.



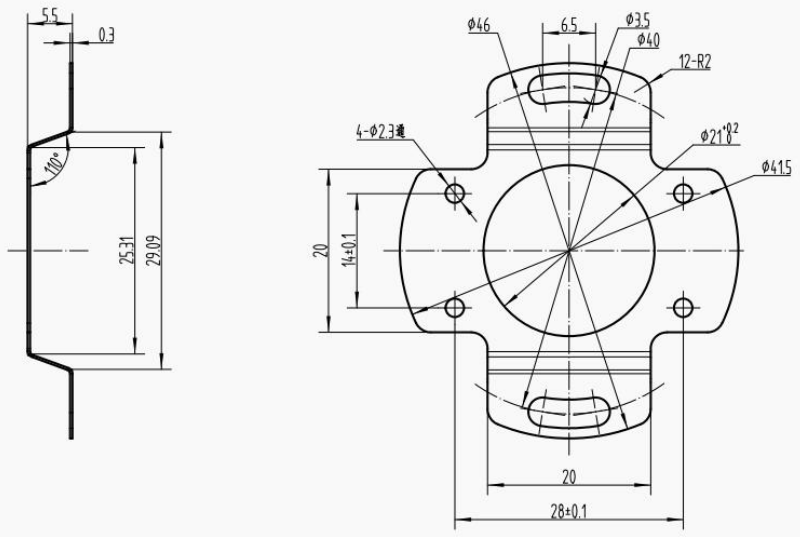
Model: UZ3509

Main Size Selection



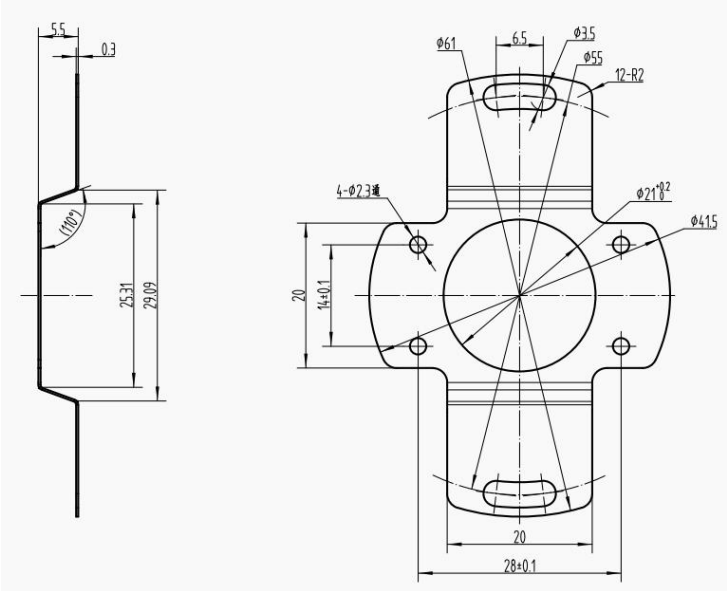
Spring Tab Size Selection

ENCODERS

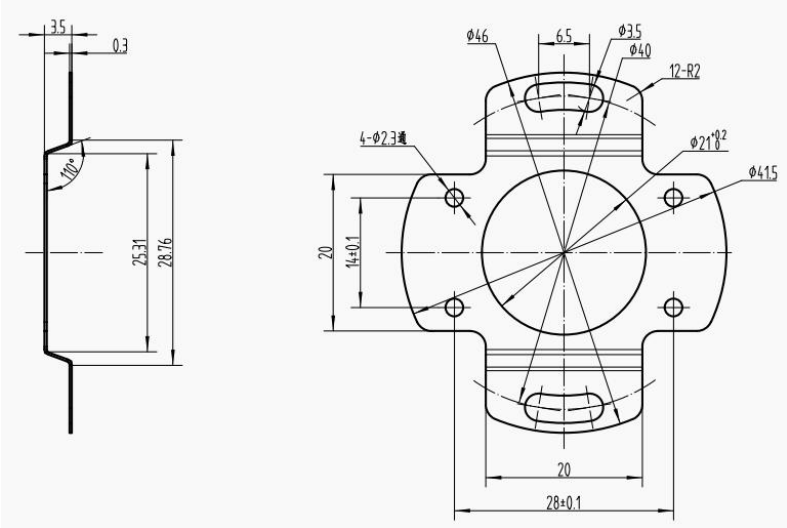


MP4409-002A-40 (C-Mounting hole d40)

MP4409-001A-55 (D-Mounting hole d55)

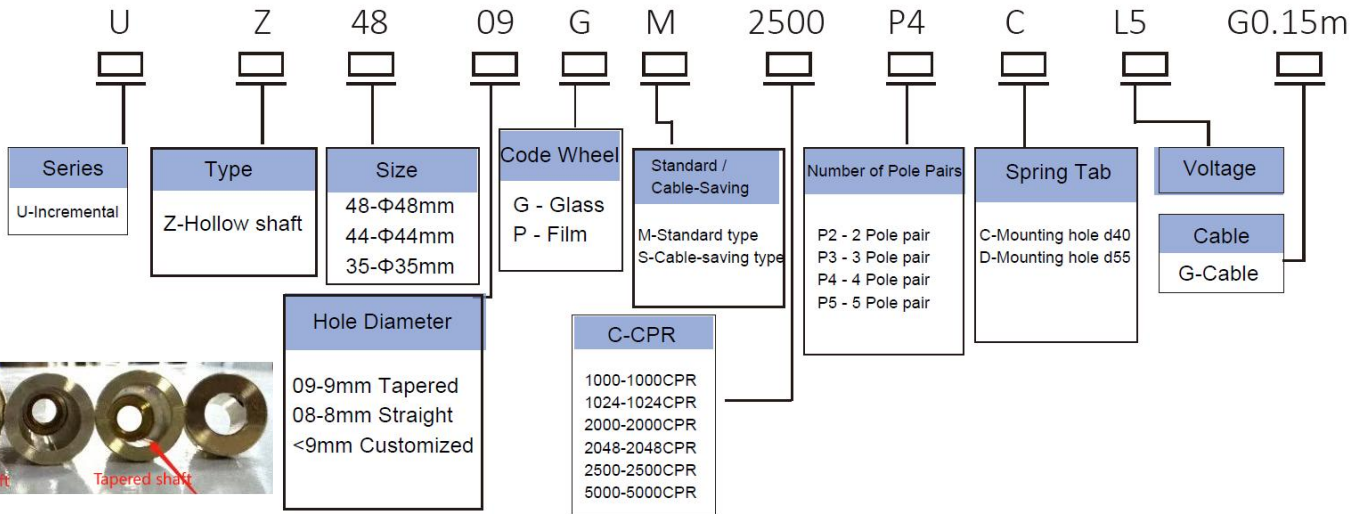


MP4409-003A-40 (CL-Mounting hole d40)



Note: The spring tab should be selected according to the motor end size.

ORDERING INFORMATION / PART NUMBER



CONNECTIONS

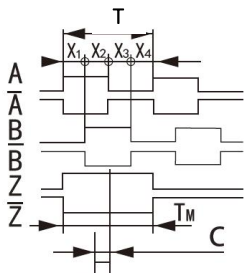
SIGNAL	A	B	Z	-A	-B	-Z	U	V	W	-U	-V	-W	Vcc	GND
COLOR	GREEN	WHITE	YELLOW	GREEN/BLACK	WHITE/BLACK	YELLOW/BLACK	BROWN	GREY	ORANGE	BROWN/BLACK	GREY/BLACK	ORANGE/BLACK	RED	BLACK

Cable-Saving Type

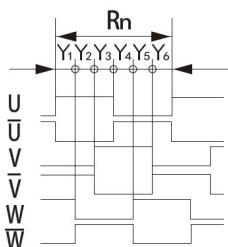
SIGNAL	A	B	Z	-A	-B	-Z	Vcc	GND
COLOR	BLUE	GREEN	YELLOW	BLUE/BLACK	GREEN/BLACK	YELLOW/BLACK	RED	BLACK

OUTPUT PHASE

OUTPUT WAVEFORM STANDARD TYPE

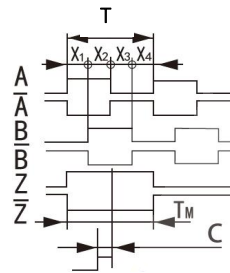


U Phase Rising Edge Z Signal Center

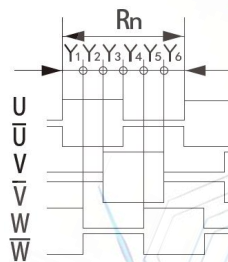


Waveform Ratio: $X1+X2=0.5T\pm0.1T$
 $X2+X3=0.5T\pm0.1T$
 Phase Difference: $Xn=0.25T\pm0.1T$
 Z Signal Width: $Z=1T\pm0.5T$
 $T=360^\circ/N$ (N is the number of pulses per revolution)
 Period $P = 360^\circ/N1\pm1.5^\circ N1=2, 3, 4$
 Phase Difference Y: $P / 6\pm1.5^\circ$ (n=1, 2, 3, 4, 5, 6)
 The Phase Position between A, B Signals and U, V, W Signals is
 -Not Specified.
 Z Phase and U Phase Relationship: $C\pm1^\circ$ (Mechanical Angle)

OUTPUT WAVEFORM CABLE-SAVING TYPE



U Phase Rising Edge Z Signal Center



Waveform Ratio: $X1+X2=0.5T\pm0.1T$
 $X2+X3=0.5T\pm0.1T$
 Phase Difference: $Xn=0.25T\pm0.1T$
 Z Signal Width: $Z=1T\pm0.5T$
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 Period $P = 360^\circ/N1\pm1.5^\circ N1=2, 3, 4$
 Phase Difference Y: $P / 6\pm1.5^\circ$ (n=1, 2, 3, 4, 5, 6)
 The Phase Position between A, B Signals and U, V, W Signals is
 -Not Specified.
 Z Phase and U Phase Relationship: $C\pm1^\circ$ (Mechanical Angle)
 *Difference from Standard Type: During the first 20ms after power-on, ABZ lines output UVW signals. After 20ms, ABZ lines continuously output ABZ signals.