

Brakes

Electromagnetically Released System

For combination with
DC-Micromotors
Brushless DC-Servomotors

Series MBZ

Values at 22°C	MBZ	12V	22V	24V	
Supply voltage (DC) $\pm 10\%$	U_N	12	22	24	V
Resistance	R	24	81	96	Ω
Current	I	0,5	0,27	0,25	A
Power	$P_{2 \max}$	6	6	6	W
Mechanical response times: ¹⁾					
– Coupling time	13				ms
– Disconnection time	27				ms
Static torque rating ²⁾	400				mNm
Moment of inertia	10				gcm ²
Max. permissible speed	16 000				min ⁻¹
Temperature range: ³⁾					
– Operating temperature	-5 ... +120				°C
– Storage temperature	-25 ... +120				°C
Mass	50				g

¹⁾ Depending on the requirements, a Switch-off voltage-limitation function can be applied using an anti-parallel diode, varistor or other. However, this will influence the brake switching time.

²⁾ Under dry operation conditions, absolutely oil-free.

³⁾ Non condensing atmosphere.

Product combination

Dimensional drawing A	L1 [mm]	Dimensional drawing D	L1 [mm]	Dimensional drawing H	L1 [mm]
2342 ... CR	72,5	4490 ... B	125,2	3242 ... BX4	72,5
2642 ... CXR	72,5	4490 ... BS	125,2	3268 ... BX4	98,5
2642 ... CR	72,5				
2657 ... CXR	87,5	Dimensional drawing E	L1 [mm]		
2657 ... CR	87,5	3274 ... BP4	104,0		
2668 ... CR	98,5				
		Dimensional drawing F	L1 [mm]		
Dimensional drawing B	L1 [mm]	3216 ... BXT H	45,6		
3242 ... CR	72,5	4221 ... BXT H	50,9		
3257 ... CR	87,5				
3272 ... CR	102,5	Dimensional drawing G	L1 [mm]		
		2444 ... B	73,7		
Dimensional drawing C	L1 [mm]	3056 ... B	87,5		
3863 ... CR	95,0	3564 ... B	98,0		
3890 ... CR	121,0				

Note: 3242 ... BX4 and 3268 ... BX4 can be combined with Speed Controller or Motion Controller 3.0 only.

For combinations of several components, please contact your responsible sales consultant.

Due to the thermal losses of the brake the continuous power of the combination out of motor and brake might be reduced compared to the motor datasheet.

Features

The brakes are designed as DC operated permanentmagnet single-surface brakes characterised by the fact that the braking effect is produced by a permanentmagnetic field (electromagnetically released system). This means that the required braking force is generated when voltage is removed.

In order to neutralise the braking effect, the permanentmagnetic field is counteracted by an opposing electromagnetic field.

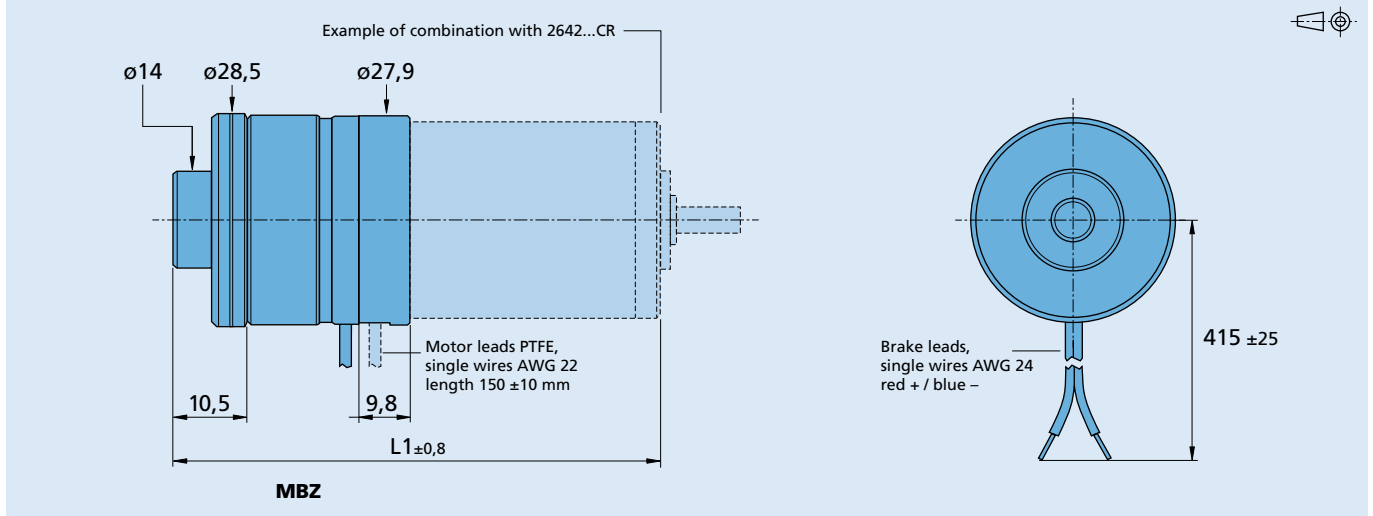
The brakes are intended only for use as holding brakes (unsuitable for braking rotating motor shaft).

Option, Cable and connection information

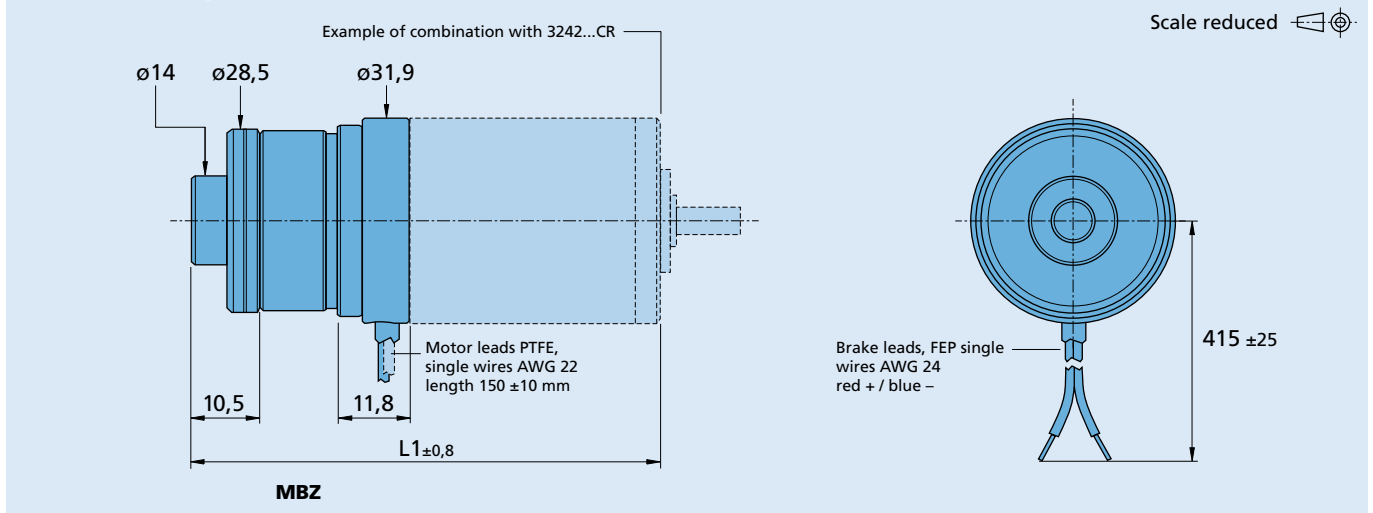
Example product designation: **3242G024CR MBZ22V**

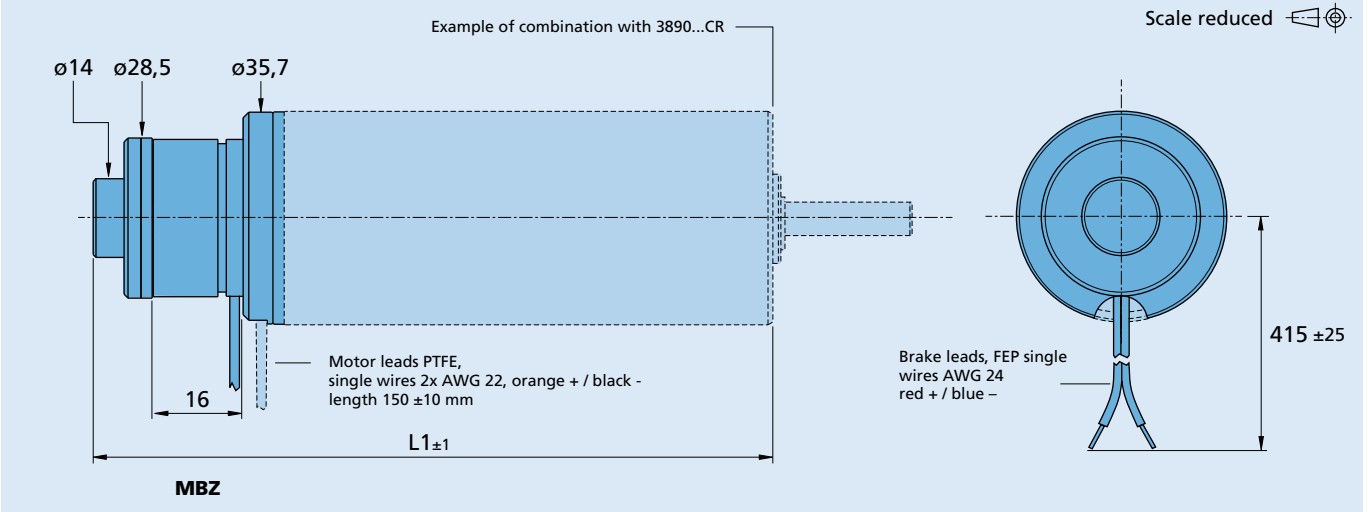
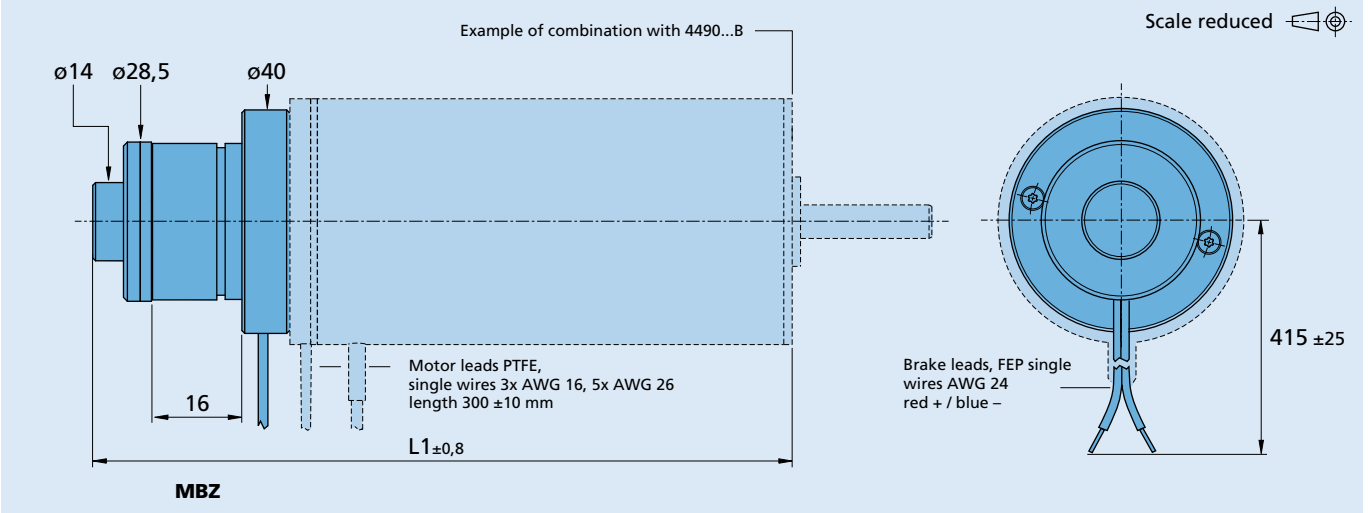
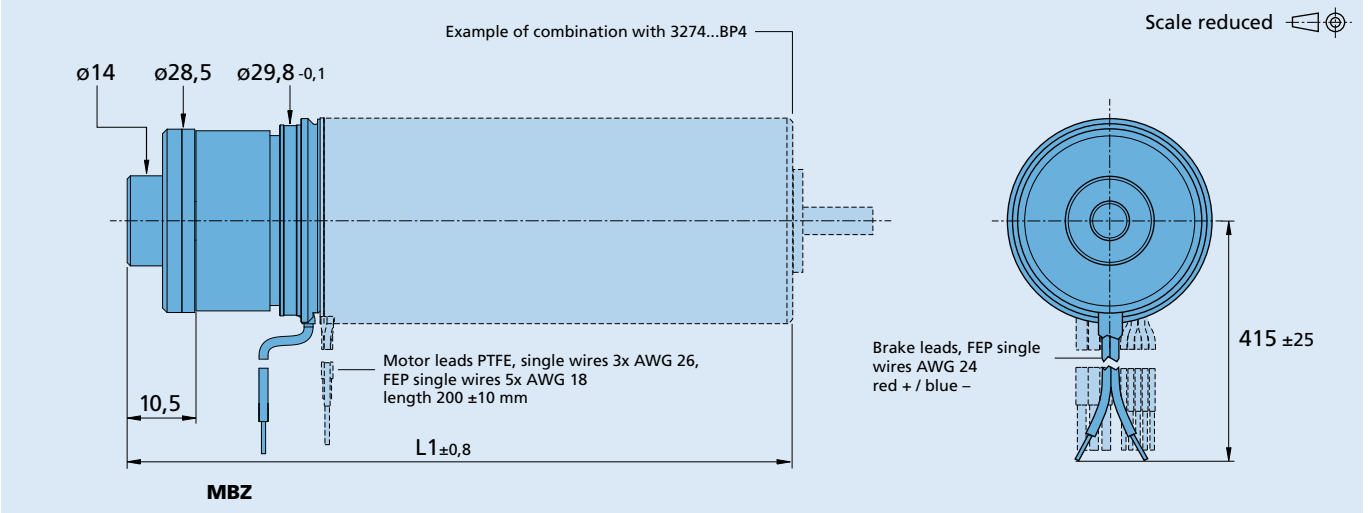
Option	Type	Description	Connection	
			Function	Colour
			Motor	red
			Motor	blue
			Standard cable	
			Single wires, material FEP	

Dimensional drawing A


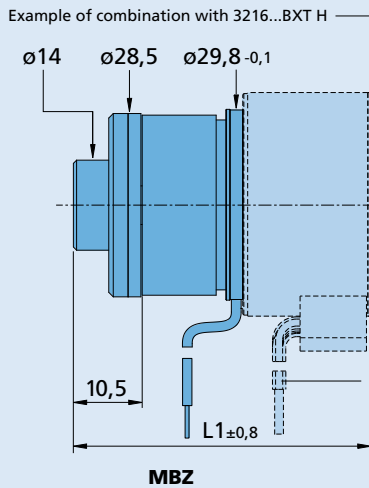


Dimensional drawing B



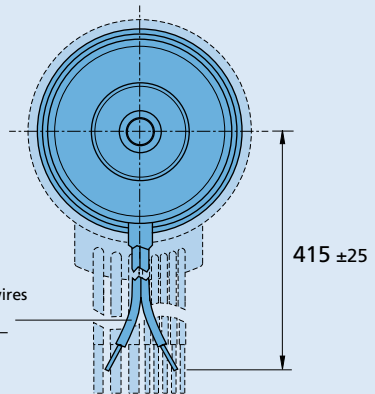
Dimensional drawing C

Dimensional drawing D

Dimensional drawing E



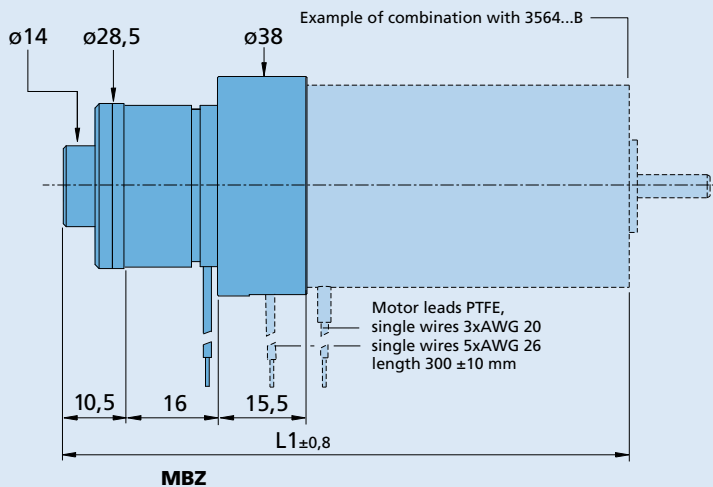
Dimensional drawing F

 Scale reduced 


Motor leads PTFE,
PVC single wires
3x AWG 20, 5x AWG 26
length 300 ± 10 mm

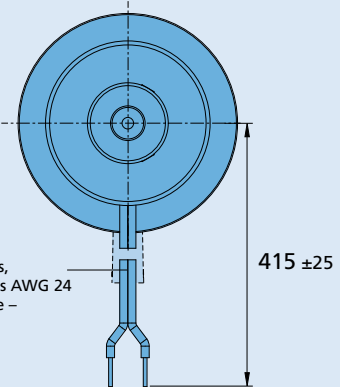
Brake leads,
FEP single wires
AWG 24
red + / blue -


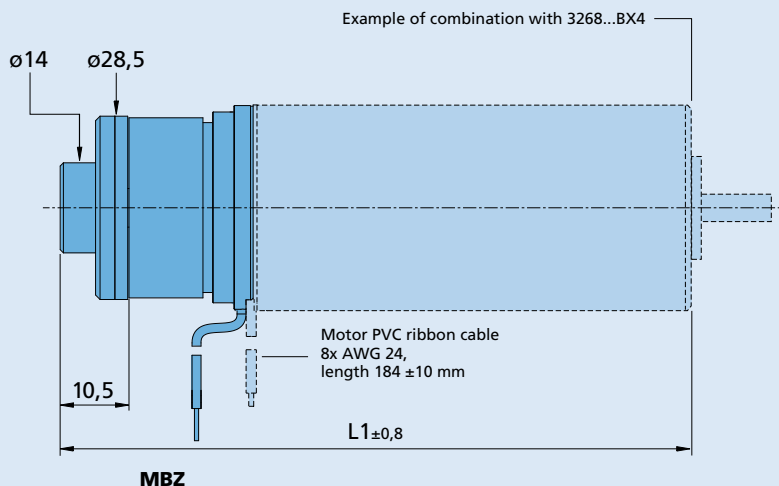

MBZ
Dimensional drawing G

 Scale reduced 


Motor leads PTFE,
single wires 3xAWG 20
single wires 5xAWG 26
length 300 ± 10 mm

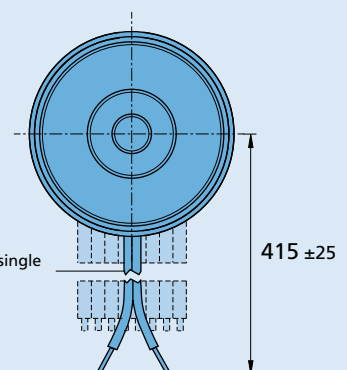
Brake leads,
single wires AWG 24
red + / blue -


MBZ
Dimensional drawing H

 Scale reduced 


Motor PVC ribbon cable
8x AWG 24,
length 184 ± 10 mm

Brake leads, FEP single
wires AWG 24
red + / blue -


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