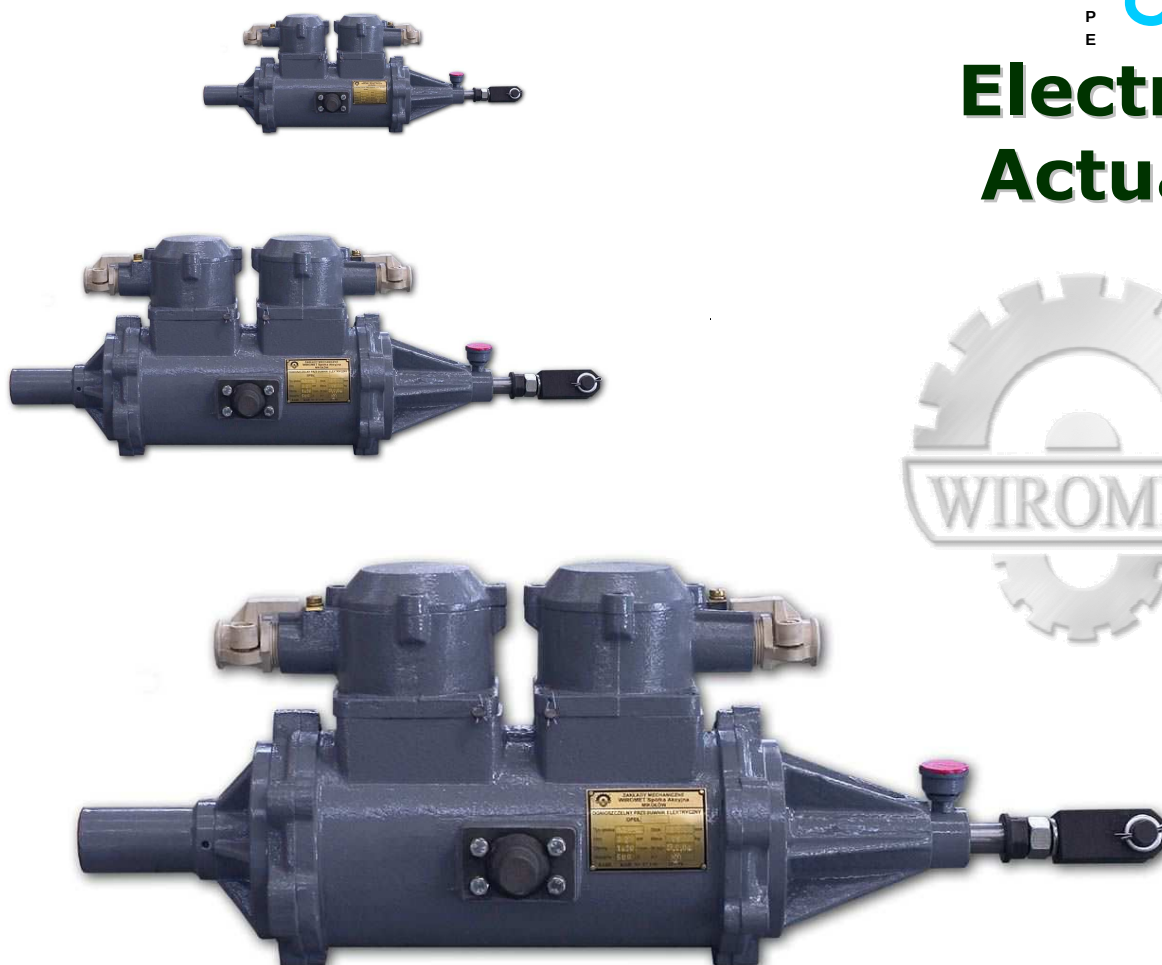




T
Y
P
E

OPEŁ

Electrical Actuator



APPLICATION:

Applications of our **OPEŁ** type electrical actuators include operating dam doors, mechanical bridges, mine ventilation shafts, vault locks, brakes ect. These devices are found where reciprocating (to and fro) motion is required in conjunction with rotation about a fulcrum (pivot point) and within set limits of travel. The electrical actuator. is certified for operation in environments with heightened risk of explosion. **OPEŁ** type actuators provide IP-54 wg PN-EN 60529:2003.level protection.

This actuator is designed to be used in environments at risk of explosion and is classified as a group **1** category **M2** device of the EU **94/9/EC (ATEX) directive**. The



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device can therefore be used in deep mining operations and in the presence of methane at sites that are in the "a", "b" and "c" hazard classes for methane explosion and "A" and "B" hazard classes for coal dust explosion.

The device is marked  I M2.

And possesses type certificates:

- OPEŁ-3 Ex d [ib] I OBAC 06 ATEX 041X
- OPEŁ-6 Ex d [ib] I OBAC 05 ATEX 239X
- OPEŁ-12 Ex d [ib] I OBAC 06 ATEX 042X

The electrical actuator is certified for operation in environments between **+40°C to -25°C** and in maximum humidity of **95%**.

CLASIFICATION:

The classification for **OPEŁ** type electrical actuators comprises of the following symbols:

OPEŁ - **F** / **S** / **U**

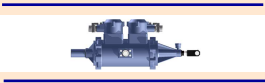
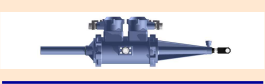
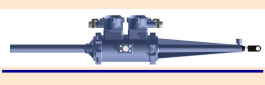
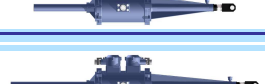
Symbol definitions:

OPEŁ	- electrical actuator
F	- nominal force (on the couple ending) in [kN]
S	- actuator travel [mm]
U	- operating voltage [V]

Example for electrical actuator applied force 3 kN, travel length 450mm and 400V motor operating voltage.

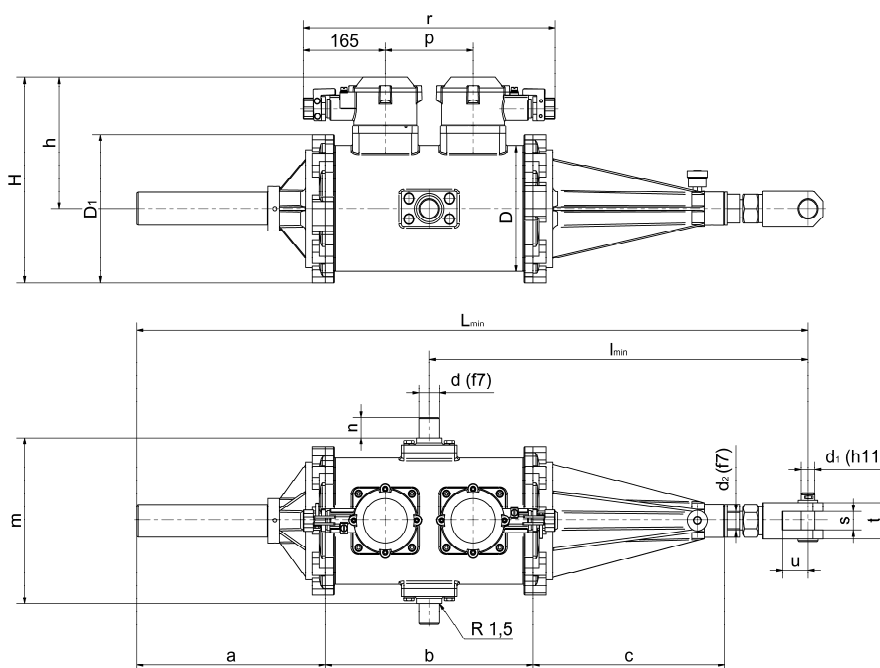
PEŁ-3/450/400

TECHNICAL SPECIFICATIONS:

Actuator type		Nominal force	Travel	Rate of travel	Time for complete stroke	Permitted deployment rate	Power	Operating voltage	Amps	Mass
		kN	mm	mm/s	s	hrs. ⁻¹	kW	V	A	kg
OPEŁ-3		3	250	118	2,12	120	2,2	230/400 500	8,3/4,8 3,9	65,0
			450		3,81					70,0
			650		5,50					75,0
OPEŁ-6		6	250	126,7	1,97	120	3,0	230/400 500	11,9/6,9 5,5	120,0
			450		3,55					130,0
			650		5,13					140,0
			850		6,71					150,0
OPEŁ-12		12	250	128	1,95	120	7,5	230/400 500	26,7/15,4 11,6	168,0
			450		3,51					180,0
			650		5,08					192,0
			850		6,64					205,0

ACTUATOR DIMENSIONS:

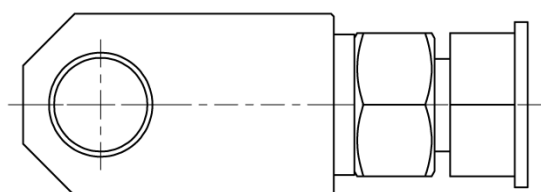
Actuator type	Travel [mm]	Dimensions [mm]																		
		L _{min}	l _{min}	a	b	c	D	D ₁	d	d ₁	d ₂	H	h	m	n	p	r	s	t	u
PEŁ-3	250	830	470	185	350	190	173,5	210	30	20	25	345	240	220	30	160	490	22	40	35
	450	1230	670	385	350	390	173,5	210	30	20	25	345	240	220	30	160	490	22	40	35
	650	1630	870	585	350	590	173,5	210	30	20	25	345	240	220	30	160	490	22	40	35
PEŁ-6	250	931	551	174	412	180	250	290	40	28	36	425	280	330	40	174	504	36	70	50
	450	1331	751	374	412	380	250	290	40	28	36	425	280	330	40	174	504	36	70	50
	650	1731	951	574	412	580	250	290	40	28	36	425	280	330	40	174	504	36	70	50
	850	2131	1151	774	412	780	250	290	40	28	36	425	280	330	40	174	504	36	70	50
PEŁ-12	250	1015	600	180	470	200	280	338	40	28	36	469	300	370	40	188	518	36	70	50
	450	1415	800	380	470	400	280	338	40	28	36	469	300	370	40	188	518	36	70	50
	650	1815	1000	580	470	600	280	338	40	28	36	469	300	370	40	188	518	36	70	50
	850	2215	1200	780	470	800	280	338	40	28	36	469	300	370	40	188	518	36	70	50



COUPLING OPTIONS:

There are 2 coupling options for **OPEŁ** type actuators.

Coupling 1



Coupling 2

