

Electrohydraulic Thruster

ELDRO® Type EdEx

Standards used

EN 13463-8:2004	Non-electrical equipment for potentially explosive atmospheres Part 8: Protection by liquid immersion "k"
EN 60079-0:2009	Explosive atmospheres Part 0: Equipment – General requirements
EN 60079-1:2007	Explosive atmospheres Part 1: Equipment protection by flameproof enclosures "d"
EN 60079-7:2007	Explosive atmospheres Part 7: Equipment protection by increased safety "e"
EN 60079-31:2009	Explosive atmospheres Part 31: Equipment dust ignition protection by enclosure "t"
EN 13463-1:2009	Non-electrical equipment for use in potentially explosive atmospheres Part 1: Basic method and requirements
EN 1127-1:2011	Explosive atmospheres – Explosion prevention and protection Part 1: Basic concepts and methodology



Characteristics:

The temperature ranges from -45 °C to max. +55 °C, depending on type and construction

- ▶ Rated voltage: 220 to 690 V
- ▶ Rated current: 0.17 to 1.14 A
- ▶ Rated frequency: 50 or 60 Hz
- ▶ Position indicator assembled at the outside (optional)

We are happy to review your request and submit an offer.

Identification:

- ▶ for use in potentially explosive mines (methane gas)
E I M2 k Ex d I Mb or E I M2 k Ex de I Mb
- ▶ for use in other hazardous areas
E II 2G k Ex d IIB T4 Gb or E II 2G k Ex de IIB T4 Gb,
E II 2G k Ex d IIC T4 Gb or E II 2G k Ex de IIC T4 Gb,
E II 2G k Ex d IIC T5 Gb (on request)
E II 2G k Ex de IIC T5 Gb (on request)
- ▶ for dust explosion protection
E II 2D k Ex tb IIIC T130 °C Db IP65

Area classification:

ELDRO® thrusters with the labeling:

- ▶ E I M2 ... for zone 1 and 2
- ▶ E II 2G... for zone 1 and 2
- ▶ E II 2D... for zone 21 and 22

Certificate BVS 05 ATEX E 074 X

The maximum surface temperature exceeds not a value of 130°C, even with the expected error conditions. The ignition temperature of the gases used should not fall below a value of 130 °C in the current version, determined according to DIN EN 14 522.



Technical data for ELDRO®-Thruster in EX design

Type	Rated restoring force [N]	Nominal-stroke [mm]	C-spring	Power ¹⁾ [W]	Current at 400 V AC 3-ph ¹⁾ [A]	Lowering time (without lowering valve) [s]
Short stroke thruster						
EdEx 32/50	320	50	C 18 C 32	150	0.30	0.45
EdEx 50/50	500	50	C 18 C 32	180	0.38	0.36
EdEx 80/60	800	60	C 50 C 45 C 80	220	0.48	0.48
EdEx 80/75	800	75	-	220	0.48	0.62
EdEx 125/60	1250	60	C 45 C 80 C 125	250	0.52	0.36
EdEx 125/75	1250	75	-	250	0.52	0.48
EdEx 150/60	1500	60	C 45 C 80 C 125	360	0.63	0.34
EdEx 150/75	1500	75	-	360	0.63	0.44
EdEx 200/60	2000	60	C 45 C 80 C 130 C 200	320	0.64	0.40
EdEx 250/60	2500	60	C 45 C 80 C 130 C 200	360	0.69	0.35
EdEx 320/100	3200	100	C 70 C 250 C 320	550	0.90	0.60
Long stroke thruster						
EdEx 80/160	800	160	C 45 C 80	210	0.48	0.90
EdEx 125/160	1250	160	C 45 C 80 C 125	250	0.52	0.70
EdEx 150/160	1500	160	C 45 C 80 C 125	300	0.57	0.65
EdEx 200/160	2000	160	C 45 C 70 C 130 C 200	310	0.64	0.85
EdEx 250/160	2500	160	C 45 C 70 C 130 C 200	350	0.66	0.80
EdEx 320/120	3200	120	C 70 C 250 C 320	550	0.90	0.62

¹⁾ Values at operating temperature, at activation operation with less than 0 °C device temperature the power consumption is about 2 times the power consumption of a device temperature > +20 °C.

For inquiries and further details please do not hesitate to contact us!