

APEX^{mpc} motor purge controller

Zones 1 and 21



The APEX^{mpc} Ex p control unit controls and monitors the pre-purge and operating phase of pressurised encapsulated motors. The degree of protection with which the APEX^{mpc} Ex p control unit protects motors corresponds to protection class pxb.

The parameters can be set using the integrated WEB OS or the optionally available p operator panel. The APEX^{mpc} features two release relays; one which is energised and one which has floating contacts. Two signal relays with one changeover contact each are additionally available.

All the components required to set up Ex px monitoring and purge gas valves are integrated in the APEX^{mpc}. The following components are additionally required to set up a complete control system:

- "Motor purge" valve MPV
- Optionally p operator panel

- Black box system
- Automatic purge time calculation
- WEB Operating System
- 3 x PT100/1000 inputs
- Safety-related control system

Explosion protection

ATEX marking	⊕ II 2(1)G Ex eb mb ib [ib pxb] [ia Ga] IIC T4 Gb ⊕ II 2(1)D Ex tb [ib pxb] [ia Da] IIIC T130 °C Db
Certification	BVS 19 ATEX E 015X
IECEx marking	Ex eb mb ib [ib pxb] [ia Ga] IIC T4 Gb Ex tb [ib pxb] [ia Da] IIIC T130 °C Db
Certification	IECEx BVS 19.0038X
Other approvals and certificates, see www.bartec.com	
Ambient temperature	In storage: -20 °C to +60 °C During operation: -25 °C to +50 °C -50 °C to +50 °C (HT) 230 V AC or 110 V AC heating is available on the HT version. Please state which voltage you require when ordering.

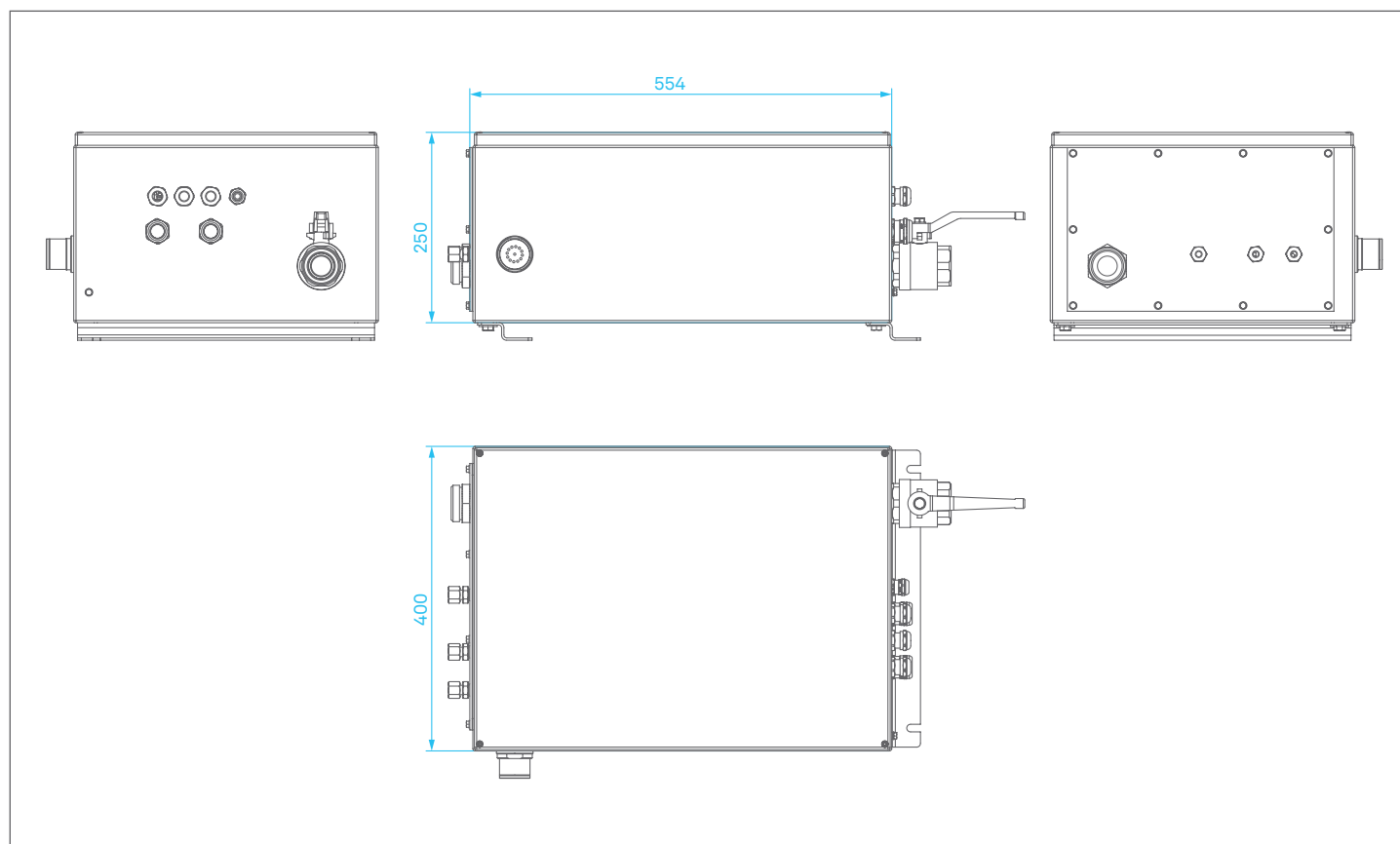
Electrical data

Supply voltage	24 V DC to 44 V DC, ±10 % or 100 V AC to 230 V AC, ±10 %
Power consumption	P _v = approx. 19 watts
Normally open contacts	K1 (SIL) release, max. 5 A (AC1) K2 (SIL) release, floating, max. 230 V AC/3 A (AC1) K3 and K4 signal relays, floating, changeover contact, max. 1 A (AC1)
Inputs	3 x PT100/1000 1 x bypass 1 x main switch 1 x 4 – 20 mA [ib] – pressure sensor 1 x 4 – 20 mA [ia] – pressure sensor

Technical data

Directives	Directive 2014/30/EU Directive 2014/34/EU
Structure	Ex e protective housing with integrated Ex mb/ib-protected p control system
Housing material	V4A stainless steel
IP rating	IP 66 according to EN/IEC 60529 IP 64 according to EN/IEC 60079-0
Terminals	Ex e: 0.08 to 2.5 mm ² , fine-wire, tension spring Ex i: 0.2 to 1.5 mm ² , fine-wire, push-in
Pneumatic connections	Purge gas supply in: G 1 ½", internal thread Purge gas supply out: G 1 ½", external thread MPV activation: Pipe connection 10 mm Pressure measurement: 2 x pipe connections 10 mm
Pressure measurement range	0 to 25 mbar
Pre-purge time	0 to 120 min
Flow rate	Leakage compensation: Proportional up to max. 11.5 litres/sec Purge gas volume: Digital 0 to 450 m ³ /hour
Weight	40 kg
Safety integrity level	SIL 2

Dimensions in mm



Ordering information

Controller supply voltage	A	Temperature range, UV heating	B
24 V DC to 44 V DC, ±10 %	1	-25 °C to +50 °C	0
100 V AC to 230 V AC, ±10 %	2	-50 °C to +50 °C, 230 V AC	1
		-50 °C to +50 °C, 110 V AC	2

Complete oder no.

Zones 1, 21

0 7 - 3 7 A 2 - 2 2 1 1 / **A** M 5 **B**