

ASCO™ Operators

For Potentially Explosive Atmospheres

Increased Safety/Encapsulation, II 2 G Ex eb mb II T6..T3 Gb, II 2 D Ex tb IIIC T85°C..T200°C Db IP66/67

Steel or stainless steel enclosure

Series
EM
WSEM

Features and Benefits

- Explosionproof operator for use in potentially explosive atmospheres according to ATEX-Directive 2014/34/EU
EC type examination certificate no.: **KEMA 98 ATEX 2542 X**
IECEx Certificate of Conformity no.: **IECEx KEM 08.0002X**
- Compliance with the Essential Health and Safety Requirements has been assured by compliance with the International and European Standards EN-IEC 60079-0, EN-IEC 60079-7, EN-IEC 60079-18 and EN-IEC 60079-31
- Easy electrical installation by means of a screw terminal coil
- Peak voltage suppression standard for DC executions
- Enclosure provided with integral strain relief for cable with an o.d. of 7 to 12 mm
- Ingress protection degree IP66/67
- A wide range of valves can be supplied with the operator

Construction

Solenoid enclosure

EM Zinc plated steel (epoxy coated)

WSEM Stainless steel, AISI 316

Cable gland

Core, core tube and plugnut

Stainless steel

Shading coil

Copper or silver

Nameplate

Polyester

Coil connection

Embedded screw terminals

Safety code



II 2G Ex eb mb IIC T6..T3 Gb

II 2D Ex tb IIIC 85°C..200°C Db IP66/67

Electrical characteristics

Standard voltages

(Other voltages and 60 Hz on request)

DC (=) : 24V - 48V

AC (~) : 24V - 48V - 115V - 230V / 50 Hz

Temperature classification tables

AC (~) solenoids

Pn (watt)	Solenoid size			Maximum ambient °C ⁽¹⁾			
	M6	MXX	M12	Surface temperature			
				T6 85°C	T5 100°C	T4 135°C	T3 200°C
insulation class F (155°C) 100% E.D.							
1.2 ⁽²⁾			•	60	75		
1.5 ⁽²⁾	•			40	55		
1.85 ⁽²⁾		•		40	55		
3.7 ⁽²⁾		•		40	55	75	
5.8 ⁽²⁾		•		40	75		-
6.0	•						40
9.0	•						40
10.0 ⁽²⁾		•					40
10.0 ⁽²⁾			•			40	65
10.5		•					40
13.0		•					40
13.6 ⁽²⁾			•				40
14.1 ⁽²⁾			•				40
16.5			•				40

DC (=) solenoids

Pn (watt)	Solenoid size			Maximum ambient °C ⁽¹⁾			
	M6	MXX	M12	Surface temperature			
				T6 85°C	T5 100°C	T4 135°C	T3 200°C
insulation class F (155°C) 100% E.D.							
1.3			•	60	75		
1.7		•		40	55		
1.8			•	40	55		
3.6			•	40	55	75	
5.7			•		40	75	-
9.7	•						40
10.0			•				40
11.2		•					40
14.0			•				40
15.3	•						40
16.8			•				40
19.7			•				40

Check the wattage compatibility with the product selected.

⁽¹⁾ The minimum allowable ambient temperature is -40°C for the operator.

Actual temperature range can be limited depending on valve operation limits.

⁽²⁾ AC (~): rectified coil construction.

Connections

- Internal and external earthing connection
- The operator can be rotated through 360° to select the most favourable position for cable entry

Options

- Brass nickel plated or stainless steel cable gland
- Conduit hub, 1/2 NPT, M20 x 1.5, 3/4 NPT or M25 x 1.5 in aluminium or stainless steel
- Special moulded-in solid state components for peak voltage suppression and/or rectification (four-diode bridge)



EM



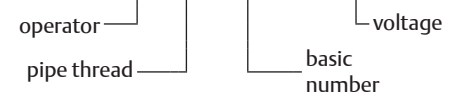
WSEM

Ordering information

A valve supplied with the explosionproof operator will be identified with prefix EM or WSEM before the catalogue number.

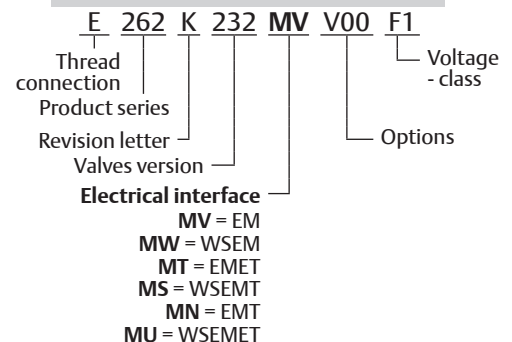
Example: **WSEM E 210D095 230V/50 Hz**

EM E 210D095 230V/50 Hz



A valve supplied with the explosionproof operator will be identified with electrical interface MV, MW, MT, MS, MN or MU in the PRODUCT CODE.

PRODUCT CODE



Ordering examples:

PRODUCT CODE						
E	262	K	232	MV	V00	F1
E	262	K	232	MW	V00	F8
E	262	K	232	MT	V00	FT
E	262	K	232	MS	V00	FT
E	262	K	232	MN	V00	FT
E	262	K	232	MU	V00	F9

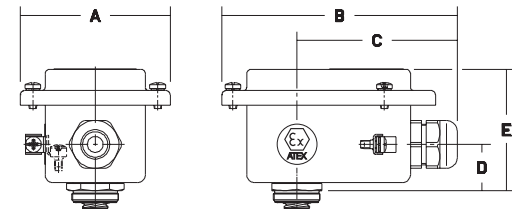
Thread connection ———— Voltage - class
 Product series ———— Options
 Revision letter ————
 Valves version ————
 Electrical interface ————

Dimensions (mm), Weight (kg)

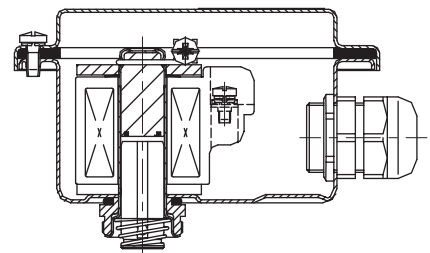


TYPE EM/WSEM

Prefix "EM"/"WSEM" solenoids / Electrical interface MV/MW/MT/MS/MN/MU
 Pull-type solenoid operator
 Metal enclosure, epoxy coated or stainless steel
 EN-IEC 60079-7, EN-IEC 60079-18 and EN-IEC 60079-31
 II 2G Ex eb mb IIC Gb, II 2D Ex tb IIIC Db IP66/67

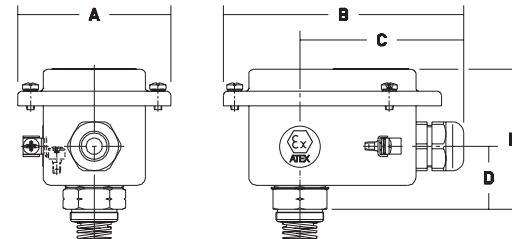


Series/Size	A	B	C	D	E	Weight
EM/WSEM-M6	77	120	82	26	64	0.48
EM/WSEM-MXX	77	120	82	23	62	0.55
EM/WSEM-M12	77	120	82	21	65	0.67

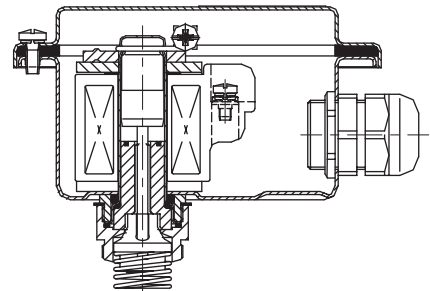


TYPE EM/WSEM

Prefix "EM"/"WSEM" solenoids / Electrical interface MV/MW/MT/MS/MN/MU
 Push-type solenoid operator
 Metal enclosure, epoxy coated or stainless steel
 EN-IEC 60079-7, EN-IEC 60079-18 and EN-IEC 60079-31
 II 2G Ex eb mb IIC Gb, II 2D Ex tb IIIC Db IP66/67

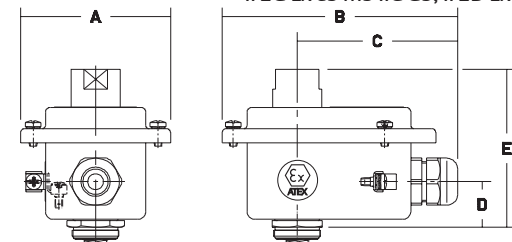


Series/Size	A	B	C	D	E	Weight
EM/WSEM-M6	77	120	82	25	63	0.50
EM/WSEM-MXX	77	120	82	31	69	0.59
EM/WSEM-M12	77	120	82	30	73	0.70

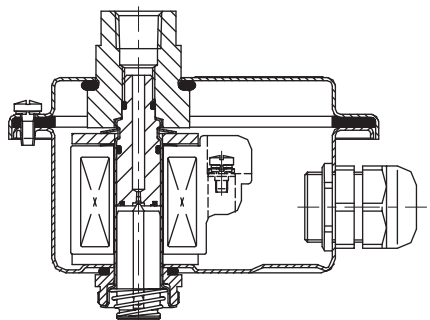


TYPE EM/WSEM

Prefix "EM"/"WSEM" solenoids / Electrical interface MV/MW/MT/MS/MN/MU
 Pull-type solenoid operator
 Metal enclosure, epoxy coated or stainless steel
 EN-IEC 60079-7, EN-IEC 60079-18 and EN-IEC 60079-31
 II 2G Ex eb mb IIC Gb, II 2D Ex tb IIIC Db IP66/67



Series/Size	A	B	C	D	E	Weight
EM/WSEM-MXX	77	120	82	23	80	0.68



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