

Modulate Action , Type 431 / 433 PN 160



## Modulate Action

### Type 431 / 433 PN 160

Safety valves from the Modulate Action product group feature a standard or proportional opening characteristic. They minimize medium loss when opening and are used for protection from pressure peaks, thermal relief, and liquids.

#### Approvals



#### Industries

- Chemical Industry
- Petrochemical Industry
- Technical Gases
- Pharmaceutical Industry

#### Further Links

 [Modulate Action Catalog \[DE\]](#)

 [Instructions \[DE, EN, FR, IT, SP, RU, CN\]](#)

 [Stückliste Type 431, 433 PN 160 \[DE\]](#)

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## Datasheet

Product info	Metric unit	US unit
Key feature	High proportional opening area and high pressure	High proportional opening area and high pressure
Nominal diameter inlet	DN 15	1/2"
Nominal diameter outlet		
Pressure		
Actual orifice diameter d0	12 mm	0,47 in
Actual orifice area A0	113 mm <sup>2</sup>	0,175 in <sup>2</sup>
Pressure	0,3 - 160 bar	4,35 - 2320,6 psig
Flange rating inlet	PN 160 PN 160	CL600
Temperature acc. to DIN EN	-270 to 450 °C	-454 to 842 °F
Temperature acc. to ASME		
Body material	1.0619, 1.4408	SA 216 WCB, SA 351 CF8M
KUB-Materials		
Valve connection	Flange acc. to DIN EN 1092 or ASME B16.5	Flange acc. to DIN EN 1092 or ASME B16.5
Bellows	Stainless steel and elastomer	Stainless steel and elastomer
Type of loading	Spring loaded	Spring loaded
Approvals	PED/ DIN EN ISO 4126-1, PED/ AD 2000-Merkblatt A2, AQSIQ, EAC	PED/ DIN EN ISO 4126-1, PED/ AD 2000-Merkblatt A2, AQSIQ, EAC
Specials	Units converted; No approvals acc. to ASME	Units converted; No approvals acc. to ASME

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## Options

Feature		Option Code
Disc	metal sealing, with detachable lifting aid	J26 (standard)
	metal sealing, bull-race	J24
	metal sealing, 1.4404	L44
	metal sealing, 1.4404 stellited	J25
	with soft sealing O-ring CR „K”	J21
	with soft sealing O-ring EPDM „D”	J22
	with soft sealing O-ring FKM „L”	J23
	with soft sealing O-ring FFKM „C”	J20
	with soft sealing plate SP „T”	J49 (on request)
	with soft sealing plate PCTFE „G”	J48 (on request)
	with soft sealing plate PTFE „A”	J44 (on request)
Seat/nozzle	Stellited sealing surface / seat	L61
Bellows	Balanced bellows with closed bonnet	J78
	Balanced bellows with open bonnet	J68
	Special materials INCONEL	J78S15 +
	Special materials Hastelloy	material name
Caps and levers	Screwed cap H2	
	Screwed plain lever H3	
	Screwed packed lever H4	
Spring	heat resistant	X01
	corrosive resistant 1.4310	X04
Test gag	for Cap H2	J70
	for lifting device H4	J69
Bonnet	closed	see Art.No.
	open	see Art.No.
Heating jacket	Heating jacket	
Lift indicator	Lift indicator for lifting device H4	J39J93
Lift stopper	ring	J51
	actuate screw H2	J52
	actuate screw H4	J50
Drain hole	G1/4	J18
	G1/2	J19
O-ring-damper	O-ring damper H2	J65
	O-ring damper H4	J66
Free of oil and grease	–	J85
KUB bursting disc	KUB bursting disc	