

ARD-ES-003

Cryogenic emergency shut-off valve · PN16/40 · SW



A compact socket-weld shut-off range with pneumatic actuation and manual override. PN16 and PN40 options are listed for DN10-50.

Sizes and pressure ratings depend on construction, materials and configuration. Confirm the selected pressure-temperature rating with the quotation.

Product illustration. Appearance and dimensions depend on the selected configuration.

Selection	Specification
Size range	DN 10-50
Pressure ratings	PN16 · PN40
Temperature	-196 to +80°C · series*
Connections	Socket weld (SW)
Medium	LNG, LOX, LN2, LAr, CO2

Define your requirement

Specify medium, design pressure and temperature, nominal size, connection standard, operation, quantity and required inspection documentation.

[View this product and request a quotation](#)

This catalogue datasheet supports selection and enquiry. It is not a certified pressure-temperature curve, installation drawing or order-specific approval.

Technical specification

Parameter	Specification
Size range	DN 10-50
Pressure ratings	PN16 · PN40
Connection	Socket Weld
Operation	Pneumatic actuator with handwheel
series temperature*	-196°C to +80°C
Medium	LNG, LOX, LN2, LAr, CO2

End connections

Illustrated arrangement: Socket-weld globe body, round bolted bonnet, open yoke, pneumatic actuator and blue override wheel.

Connection detail	Selection requirement
Published connection	Socket Weld
Socket interface	Confirm pipe outside diameter, socket bore, depth and wall thickness for the chosen size. SW is not a threaded or butt-weld interface.
Reference drawing scope	PN16 socket-weld arrangement with the illustrated actuator, DN15-DN50. DN10 is not tabulated. PN40 and other actuators require their own drawings. M is the pilot-air connection, not a linear dimension.

Materials

Component	Material / option
Body	CF8
Disc	S30408

Alternative arrangement materials

Materials apply to the supplied reference arrangement. PN16 socket-weld arrangement with the illustrated actuator, DN15-DN50. DN10 is not tabulated. PN40 and other actuators require their own drawings. M is the pilot-air connection, not a linear dimension.

Component	Material
Body	CF8
Screw	S30408
Hexagon Nut	S30408
Disc Sealing	PCTFE
Stem	S30408
Connecting Nut	S30408

Component	Material
Disc	S30408
V Ring	PTFE
Connecting Pipe	S30408
Gasket	RPTFE
Gland Nut	S30408
Gland Packings	S30408
Bonnet	S30408
Cylinder Body & Cover	ZL104
Hand Wheel	Y102

Reference dimensions

Dimensions apply to the tabulated version only. Confirm the approved outline drawing for the selected size, rating and connections before installation.

PN16 socket-weld arrangement with the illustrated actuator, DN15-DN50. DN10 is not tabulated. PN40 and other actuators require their own drawings. M is the pilot-air connection, not a linear dimension.

Dimensions and connection reference

DN	H	H1	D	D0	D1	D2	B	W1	W2	M
15	457	175	Ø100	Ø15	Ø18.5	Ø29.5	6	65	Ø130	Rc1/4
20	479	179	Ø100	Ø20	Ø25.5	Ø36	8	80	Ø130	Rc1/4
25	486	186	Ø100	Ø25	Ø32.5	Ø43.5	8	90	Ø130	Rc1/4
32	500	200	Ø100	Ø32	Ø38.5	Ø53	8	105	Ø130	Rc1/4
40	577	223	Ø125	Ø40	Ø45.5	Ø62	8	120	Ø160	Rc1/4
50	587	233	Ø125	Ø50	Ø57.5	Ø72	10	140	Ø160	Rc1/4

Linear dimensions: mm; weights: kg unless stated otherwise. Thread, mounting and pressure designations are not linear dimensions. A dash means that no value is documented. Request the approved outline drawing for installation.

Engineering requirements

Topic	Requirement
Dimension data	Reference table and drawing: DN15, DN20, DN25, DN32, DN40, DN50. Dimensions and connection reference.
Installation drawing	Confirm end-to-end length, socket bore/depth, pipe size and wall thickness, overall height and operating/removal clearance.
Pressure-temperature rating	Obtain the allowable-pressure table or curve versus temperature for the selected body, seat and seals, including minimum and maximum design temperature. Nominal rating and a family temperature range do not define this curve.

Configuration features

- Catalogue body: CF8
- Published connections: Socket Weld

Selection notes

Sizes and pressure ratings depend on construction, materials and configuration. Confirm the selected pressure-temperature rating with the quotation.

*-196 to +80°C is the series/reference range. It does not establish the allowable pressure at each temperature or suitability of every seat, seal and actuator. Confirm the selected assembly's minimum design temperature and pressure-temperature curve.

Specify required fail position, air pressure, closure time, actuator sizing and shutdown-test requirements; no SIL or fail-safe certification is asserted.

Catalogue construction and supplied reference-arrangement materials are shown separately below the material schedule. Use the approved drawing for the quoted body, trim and connections.

PN, ASME Class and safety-valve set pressure are separate values. Confirm allowable pressure versus temperature, material compatibility, oxygen cleaning, trapped-liquid relief and required certification for the selected assembly. Liquid hydrogen and helium service require a separate assessment.