2/2-way valves DN 15 to DN 50

For neutral gases and liquids
Pressure actuated by external fluid
Seat valves
Connection DIN 11850 or ISO-welded ends
Operating pressure (see table)

OBSOLETE DOCUMENT
Technical Reference Only

84540
84550

Description (standard valve)

Switching function:	normally closed
Flow direction:	determined
Mounting position:	optional

Process fluid characteristics / Valve material

Fluid temperature:	–10 °C up to max. +180 °C
Umgebungstemperatur:	–10 °C up to max. +60 °C
Material body:	Stainless steel (1.4581)
Seat seal:	PTFE
Internal parts:	Stainless steel
Spindle sealing:	PTFE / FPM, self-adjustable

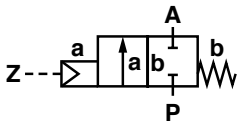
Pilot fluid characteristics / Actuator material

Pilot fluid:	neutral gases fluids
Fluid temperature:	max. +60 °C
Material body:	Polyamid 66 with glass fibre 30 %
Seat seals:	NBR
Internal parts:	Brass, Stainless steel, 1.8159, 1.1200

Features

- Easy rebuilding into »normally open« or »double-acting« without tools
- Optical position indicator is standard
- Damped closing (Valves closes against flow direction)
- Suitable for contaminated flow fluid
- Suitable for vacuum up to max. 90 %
- Reversed flow direction optional
- High flow rate
- With or without mounted pilot valve
- Option pressure actuated by external liquid fluid

Symbol



Ordering information

To order, quote model number from table overleaf, e.g. 8454400.0000 for a DN 25 valve without pilot valve.

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NORGREN FLUID CONTROLS

Characteristic data

Valves

Part Number ◊	Nominal Diameter (mm)	Connection to	Pilot pressure min.	max. (bar)	Operating pressure * min.	max. (bar)	kv-value ** (Base m^3/h)	Weight *** (kg)
8454200.0000 8455200.0000	15	DIN Series 1 ISO	3.5	10	0	16 (40) ◊◊	4.8	1.4
8454300.0000 8455300.0000	20	DIN Series 1 ISO	3.5	10	0	10 (16) ◊◊	10.0	1.5
8454400.0000 8455400.0000	25	DIN Series 2 ISO	3.5	10	0	10	14.0	1.8
8454500.0000 8455500.0000	32	DIN Series 2 ISO	3.5	10	0	7	23.0	2.4
8454600.0000 8455600.0000	40	DIN Series 2 ISO	3.5	10	0	4.5	30.0	2.7
8454700.0000 8455700.0000	50	DIN Series 3 ISO	3.5	10	0	3.0	37.0	3.9

◊ Note:
0000 without pilot valve
0164 with pilot valve for DC
0165 with pilot valve für AC
State voltage [V] and frequency [Hz]

◊◊ see further versions XXXXX22.XXXX
* with gases and liquid fluids up to 400 mm^2/s (cSt)
** Cv-value (US) ≈ kv-value x 1.2
*** without pilot valve

Notes for 3/2-way pilot valve

Material body brass 2.0402
Pilot fluid temperature max. +60 °C
Pilot pressure $p_{max.}$ = 8 bar
Standard voltages: 24 V DC, 24 V AC, 230 V AC

Electrical Data for 3/2-way pilot valve

Technical data see publication D107902
Design acc. to DIN VDE 0580
Voltage range ±10 %
Duty cycle (ED) 100 %
Protection class to EN 60529 IP65 with mounted Socket
Socket acc. to DIN EN 175301-803A

Notes for 3/2-way pilot valve hole pattern NAMUR

Material body aluminium elox
Pilot fluid temperature –10 °C to +60 °C
Pilot pressure $p_{max.}$ = 10 bar
Standard voltages 24 V DC, 24 V AC, 230 V AC
Design acc. to DIN VDE 0580
Voltage range ±10 %
Duty cycle (ED) 100 %
Protection class to EN 60529 IP65 with mounted Socket
Socket acc. to DIN EN 175301-803A

Electrical Data for 3/2-way pilot valve 97100 hole pattern NAMUR

Technical data see publication 7503389.XX.XX.XXXX
Design acc. to DIN VDE 0580
Voltage range ±10 %
Duty cycle (ED) 100 %
Protection class to EN 60529 IP65 with mounted Socket
Socket acc. to DIN EN 175301-803A

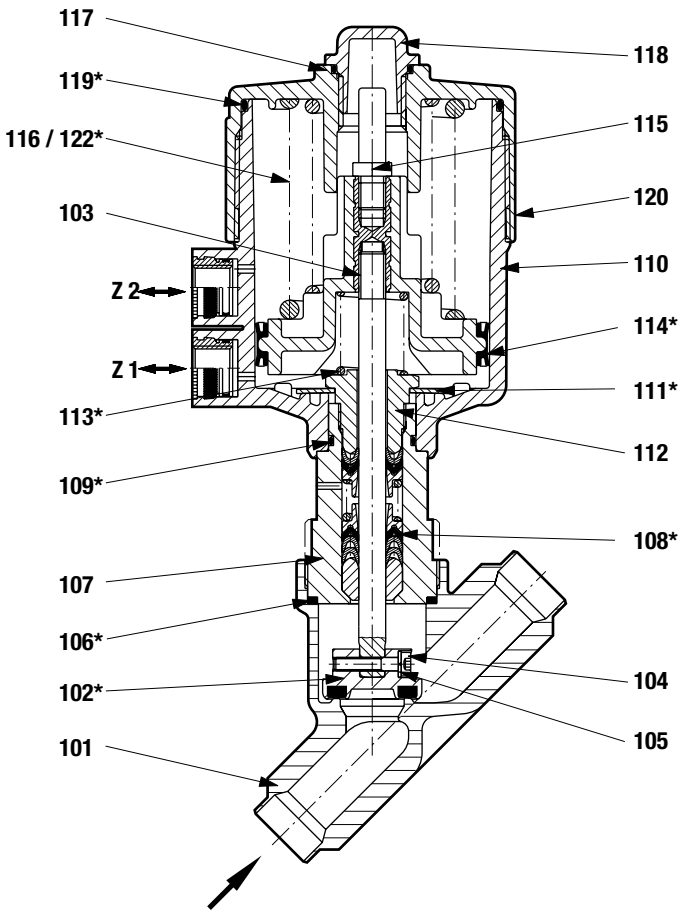
Options (Valves)

XXXXX**01**.XXXX	Normally open, closes with pilot pressure and opens with spring force (pilot pressure 1 – 10 bar)
XXXXX**08**.XXXX	Double acting; 4/2 or 5/2-way-pilot valve required
XXXXX**22**.XXXX	Higher operating pressure
XXXXX**23**.XXXX	Double electrical position indicator
XXXXX**50**.XXXX	NAMUR interface plate
On Request	Further versions several seals: NBR, FPM, EPDM stroke limiter, silencer, electrical position indica tor with magnet inductive operated

Mounting accessories (NAMUR)

Interface plate NAMUR hole pattern for retrofit, (part number **1256566**) consist of:
1x NAMUR interface plate
2x Adapter screw
2x O-ring

Section view

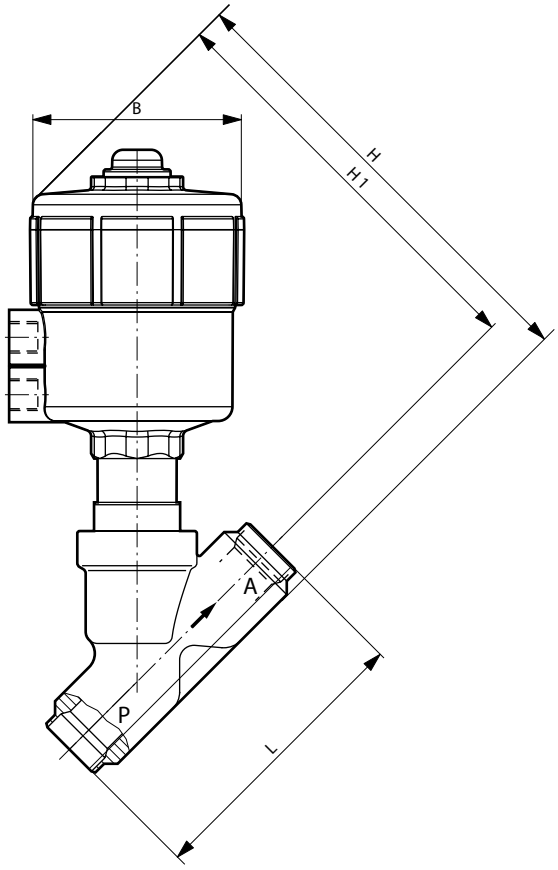


101 Valve body
*102 Valve plate
103 Valve spindle, complete
104 Cheese head cap screw
105 Spring washer
*106 Seal ring
107 Screw piece
*108 Seal packing
*109 O-ring
110 Control head housing cover, bottom part
*111 Cup spring
112 Screw piece
*113 Pressure spring
*114 Cylinder packing
115 Signal pin
*116 Pressure spring
*117 O-ring
118 Cover cap
*119 O-ring
120 Control head housing cover
*122 Pressure spring

* These individual parts form a complete wearing unit.
When ordering spare parts please state Cat no and series no.

General Dimensions

Actuator may be rotated 360°



Part Number	Nominal Diameter (mm)	Connection to	L (mm)	B (mm)	H (mm)	H1 (mm)	SW (mm)
8454200.0000 8455200.0000	15	DIN Series 1 ISO	65	89.5	177.5	164.0	27
8454300.0000 8455300.0000	20	DIN Series 1 ISO	75	89.5	184.0	168.0	32
8454400.0000 8455400.0000	25	DIN Series 2 ISO	90	89.5	194.5	174.0	41
8454500.0000 8455500.0000	32	DIN Series 2 ISO	110	89.5	209.5	184.5	50
8454600.0000 8455600.0000	40	DIN Series 2 ISO	120	89.5	208.5	186.0	55
8454700.0000 8455700.0000	50	DIN Series 3 ISO	150	89.5	229.5	194.5	70

Note to Pressure Equipment Directive (PED):
The valves of this series, including the connection size DN 25 (G 1), are according to Art. 3 § 3 of the Pressure Equipment Directive (PED) 97/23/EG. This means interpretation and production are in accordance to engineers practice wellknown in the member countries.

The CE-sign at the valve refers not to the PED. Thus the declaration of conformity is not longer applicable for this directive.

For valves > DN 25 (G 1) Art. 3 § (1) No.1.4 applies.
The basic requirements of the Enclosure I of the PED must be fulfilled.
The CE-sign at the valve includes the PED. A certificate of conformity of this directive will be available on request.

Note to Electromagnetic Compatibility Guideline (EEC):
The valves shall be provided with an electrical circuit which ensures the limits of the harmonised standards EN 61000-6-3 and EN 61000-6-1 are observed, and hence the requirements of the Electromagnetic Compatibility Guideline (2004/108/EG) satisfield.