

3/2 Directional Control Valves
Solenoid pilot actuated
Piston seat valves
Operating pressure PN 25/40 DIN 2501

- **Control of single-acting cylinders**
- **Control of die cushion on high-power presses**
- **Standard manual override**


Technical data
Fluid:

Compressed air, filtered and lubricated air ¹⁾

Operating pressure:

0 – 20 bar

Nominal sizes:

50 – 150

Operating action:

Poppet valve

Fluid connection:

Flange DIN 2501 / PN 25/40

Temperature range:

-10 – + 80 °C ²⁾

Flow direction:

Fixed

Material:

Housing: Modular graphite cast iron (GGG 50)

Seat seal: Polyurethane (AU)

Ordering example:

To order, quote model number from table overleaf, e.g. **80002720200** for a directional control valve nominal size 65.

Further versions available on request:

- Pressure port open in rest position
- For gaseous, liquid and neutral fluids
- According to approvals by the automobile industrie (pilot valve)
- With damped switching

¹⁾ Shell Hydrol DO 32, Esso Febis K 32 (as of July 1992) or comparable oil with DVI values < 8 (DIN 53521) and ISO viscosity class 32-46 (DIN 51519), Filtration 25 - 50 µm

²⁾ To secure the safety function of the valve it is important that the air is dry enough to prevent a forming of ice at valve and silencer.



General informations

Solenoid pilot-actuated (internal pilot source)

Symbol	Type	Nominal size	Operating pressure (bar)		Control pressure (bar)		kv-value = Cv (US) ≈ kv x 1.2	Switching time (ms)	Total weight (kg)
			min.	max.	min.	max.			
	80001710200	50	2	20	–	–	38	175	
	80002710200	65	2	20	–	–	58	200	
	80003710200	80	2	20	–	–	90	250	
	80004710200	100	2	20	–	–	132	300	
	80005710200	125	2	20	–	–	200	340	
	80006710200	150	2	20	–	–	250	400	

Solenoid pilot-actuated (external pilot source)

Symbol	Type	Nominal size	Operating pressure (bar)		Control pressure (bar)		kv-value = Cv (US) ≈ kv x 1.2	Switching time (ms)	Total weight (kg)
			min.	max.	min.	max.			
	80001720200	50	0,5	20	2	20	38	175	
	80002720200	65	0,5	20	2	20	58	200	
	80003720200	80	0,5	20	2	20	90	250	
	80004720200	100	0,5	20	2	20	132	300	
	80005720200	125	0,5	20	2	20	200	340	
	80006720200	150	0,5	20	2	20	250	400	

Solenoid pilot-actuated with reduced switching speed (external pilot source)

Symbol	Type	Nominal size	Operating pressure (bar)		Control pressure (bar)		kv-value = Cv (US) ≈ kv x 1.2	Switching time (ms)	Total weight (kg)
			min.	max.	min.	max.			
	80001760200	50	2	18,5	3,5	20	38	175	
	80002760200	65	2	18,5	3,5	20	58	200	
	80003760200	80	2	18,5	3,5	20	90	250	
	80004760200	100	2	18,5	3,5	20	132	300	
	80005760200	125	2	18,5	3,5	20	200	340	
	80006760200	150	2	18,5	3,5	20	250	400	

Double-solenoid pilot actuated (internal pilot source)

Symbol	Type	Nominal size	Operating pressure (bar)		Control pressure (bar)		kv-value = Cv (US) ≈ kv x 1.2	Switching time (ms)	Total weight (kg)
			min.	max.	min.	max.			
	80021710200	50	2	20	–	–	38	175	
	80022710200	65	2	20	–	–	58	200	
	80023710200	80	2	20	–	–	90	250	
	80024710200	100	2	20	–	–	132	300	
	80025710200	125	2	20	–	–	200	340	
	80026710200	150	2	20	–	–	250	400	

Double-solenoid pilot valve (external pilot source)

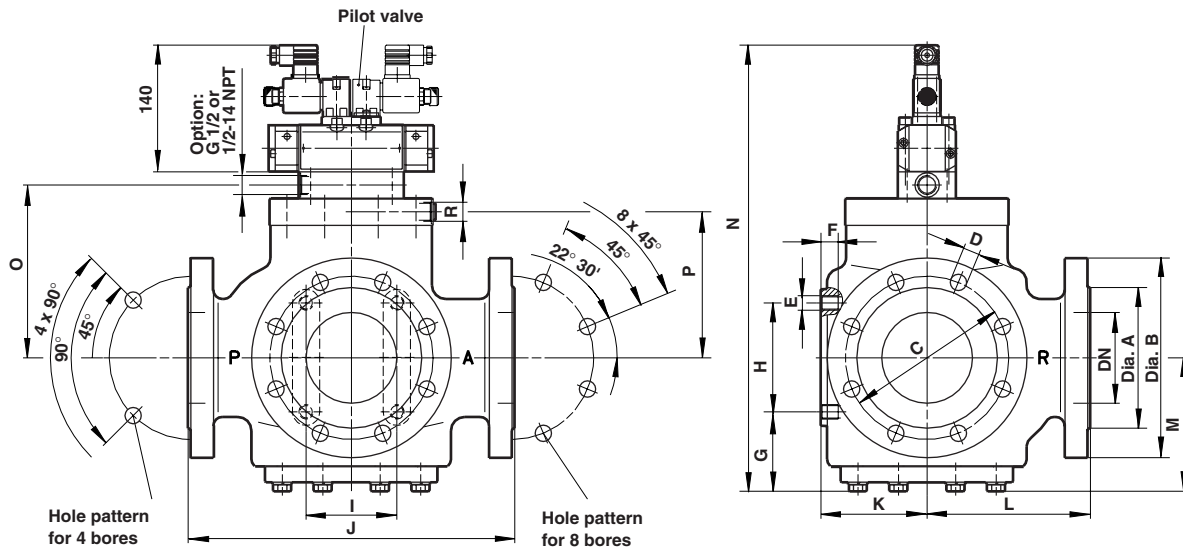
Symbol	Type	Nominal size	Operating pressure (bar)		Control pressure (bar)		kv-value = Cv (US) ≈ kv x 1.2	Switching time (ms)	Total weight (kg)
			min.	max.	min.	max.			
	80021720200	50	0,5	20	2	20	38	175	
	80022720200	65	0,5	20	2	20	58	200	
	80023720200	80	0,5	20	2	20	90	250	
	80024720200	100	0,5	20	2	20	132	300	
	80025720200	125	0,5	20	2	20	200	340	
	80026720200	150	0,5	20	2	20	250	400	

Solenoid parameters

Degree of protection	Solenoid-Type / Solenoid-Power	
	DC	AC
IP 00 (without plug) DIN 43650 form A	0200 12 W	0200 22 VA / 15 VA
IP 65 (with plug) DIN 43650 form A	0201 12 W	0201 22 VA / 15 VA
EEx me II T6	3930 12 W	3931 13 VA



Dimensional drawing



DN	ØA	ØB	C	D	Number D	E	F	G	H	I	J	K	L	M	N (ca.)	O	P	R
50	80	165	125	18	4	M14	21,5	72	80	70	230	89	115	124	427	148,5	122	G 1/4
65	120	185	145	18	8	M14	21,5	77,5	80	70	290	94	145	118	427	155	128,5	G 1/4
80	139	200	160	18	8	M16	33	89	100	100	360	122	180	155	498	188,5	159	G 1/2
100	155	235	190	22	8	M16	33	93	120	100	360	120	180	153	498	190,5	161	G 1/2
125	188	270	220	26	8	M16	33	141	180	130	400	152	200	231	655	269,5	241	G 1/2
150	212	300	250	26	8	M16	33	141	180	130	480	152	240	231	655	269,5	241	G 1/2



A suitable air treatment unit (dehydration, filtration, lubrication) must be connected upstream of pressure port 1(P).
Lubrication can only be omitted if the connected consuming device and all additional equipment is suited for oil-free operation (see page 1).
Degree of filtration: 25 µm
It is the responsibility of the purchaser and/or installers of the Norgren-Herion safety valves to make sure that the valve and all other components comply with all relevant national regulations and the specifications of the local safety associations.
The valve should be checked at intervals depending on the loads to which it is subjected, at least, however, once a year
The relevant tests must be carried out according to the operation and maintenance instructions of the valve and the local safety regulations in which country the valves is used.
In case of malfunctions the unit has to be tested and/or replaced immediately.
No liability is assumed for improper installation and agreed use of the units or unauthorised interference. All liability is denied for unauthorised modification of the units, installation or usage not in accordance with the manual, the local safety requirements or the principles of EN 692 or EN 954-1.
All solenoids are delivered without plugs. If plugs are necessary, they have to be ordered separately. For coil 0200 / 0700 and 0800 plug no. 0570275. For coil 3052 plug no. **0680003**.