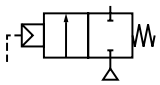
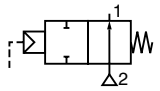
VALVES

pressure operated
cast iron body
with flanges PN16, DN 25 to 50

NC



NO



2/2
Series
T290

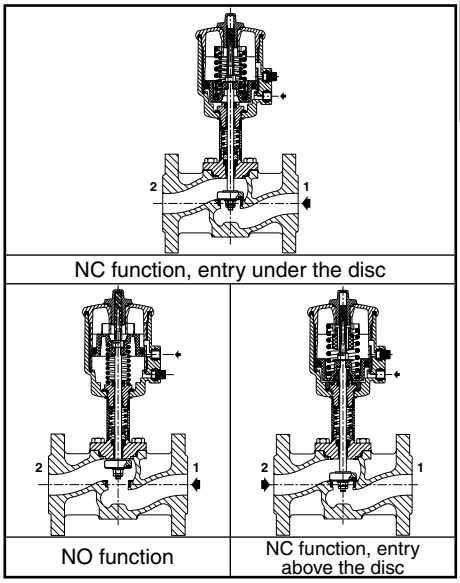
FEATURES

- *Remote-controlled valves with disc for industrial fluids*
- *Anti-waterhammer design (fluid entry under the disc)*
- *Vacuum operation up to 10^{-2} mbar*
- *Wide range of piston-type operators (63 - 90 -125 mm dia.) rotatable through 360°, for maximum performance at different minimum pilot pressures*
- *High performance, maintenance-free stuffing box*
- *The valves satisfy Pressure Equipment Directive 97/23/EC, article 3.3 (DN 25)*

GENERAL

Differential pressure	See "SPECIFICATIONS" [1 bar =100 kPa]
Maximum allowable pressure	16 bar
Ambient temperature range	-10°C to +60°C
Maximum viscosity	600 cSt (mm^2/s)
Pilot fluid	Filtered air or water
Max. pilot pressure	10 bar
Min. pilot pressure	See below and following page
Pilot fluid temperature	-10°C to +60°C
Response times	See page V402-5

fluids (✳)	temperature range	disc seal (✳)
air, inert gas, water and oil group 2	- 10°C to + 95°C	PTFE



NC function, entry under the disc

NO function

NC function, entry above the disc

D

CONSTRUCTION

Connection	Flange type 21 (ISO 7005) - PN 16
Facing	Type B
Face to face dimensions	NFE 29354 - DIN 3202 F1

MATERIALS IN CONTACT WITH FLUID

(✳) Ensure that the compatibility of the fluids in contact with the materials is verified

Valve body	Cast iron
Stuffing box housing	Cast iron
Stem and seat	Stainless steel
Disc	Brass
Stuffing box packing	PTFE chevrons
Wiper seal	FPM
Disc seal	PTFE
Valve body seal	NBR

OTHER MATERIALS

Operator	Glass fibre filled PA
Optical position indicator	PA 12, supplied standard on valves with 63, 90 and 125 mm operators

SPECIFICATIONS

DN	orifice size	flow coefficient kv		pilot pressure (bar)		operating pressure differential (bar) min.	operating pressure differential (bar) max. air, inert gas (✳)	operating pressure differential (bar) max. water, oil (✳)	operator diameter	catalogue number
	(mm)	(m^3/h)	(l/min)	min.	max.				(mm)	
NC - Normally closed, entry under the disc (1)										
25	25	12	200	4	10	0	10	10	63	**T290A142**
							16	16	90	**T290A143**
				2,5	10	0	6	6	63	**T290A140**
							12	12	90	**T290A141**
				1,5	10	0	3	3	63	**T290A138**
							5	5	90	**T290A139**
32	32	18	300	4	10	0	6	6	63	**T290A148**
							12	12	90	**T290A149**
				2,5	10	0	3	3	63	**T290A146**
							7	7	90	**T290A147**
				1,5	10	0	1,5	1,5	63	**T290A144**
							3	3	90	**T290A145**
		19	317	4	10	0	16	16	125	**T290A686**
				2,5	10	0	16	16	125	**T290A685**
				1,5	10	0	10	10	125	**T290A684**
40	40	32	530	4	10	0	4	4	63	**T290A152**
							8	8	90	**T290A153**
				2,5	10	0	4	4	90	**T290A151**
				1,5	10	0	3	3	90	**T290A150**
		35	583	4	10	0	16	16	125	**T290A629**
				2,5	10	0	10	10	125	**T290A628**
				1,5	10	0	4	4	125	**T290A627**
50	50	39	650	4	10	0	2,5	2,5	63	**T290A156**
							6	6	90	**T290A157**
				2,5	10	0	2,5	2,5	90	**T290A155**
				1,5	10	0	1	1	90	**T290A154**
		44	733	4	10	0	10	10	125	**T290A632**
				2,5	10	0	5	5	125	**T290A631**
				1,5	10	0	2	2	125	**T290A630**

SPECIFICATIONS

DN	orifice size	flow coefficient kv		pilot pressure (bar)		operating pressure differential (bar) min.	operating pressure differential (bar) max. air, inert gas (✳)	operating pressure differential (bar) max. water, oil (✳)	operator diameter	catalogue number
	(mm)	(m^3/h)	(l/min)	min.	max.				(mm)	
NO - Normally open, entry under the disc										
25	25	12	200	II (✳)	10	0	16	16	63	**T290A158**
				III (✳)	10	0	16	16	90	**T290A159**
32	32	18	300	II (✳)	10	0	16	16	63	**T290A160**
				III (✳)	10	0	16	16	90	**T290A161**
		19	317	IV (✳)	10	0	16	16	125	**T290A687**
40	40	32	530	II (✳)	10	0	11	11	63	**T290A162**
				III (✳)	10	0	16	16	90	**T290A163**
		35	583	IV (✳)	10	0	16	16	125	**T290A636**
50	50	39	650	II (✳)	10	0	7	7	63	**T290A164**
				III (✳)	10	0	13	13	90	**T290A165**
		44	733	IV (✳)	10	0	16	16	125	**T290A637**
NC - Normally closed, entry above the disc										
25	25	12	200	VI (✳)	10	0	10	-	63	**T290A166**
32	32	18	300	VI (✳)	10	0	10	-	63	**T290A167**
				VII (✳)	10	0	10	-	90	**T290A168**
40	40	32	530	VI (✳)	10	0	10	-	63	**T290A169**
				VII (✳)	10	0	10	-	90	**T290A170**
50	50	39	650	VI (✳)	10	0	9	-	63	**T290A171**
				VII (✳)	10	0	10	-	90	**T290A172**

(✳) Minimum pilot pressure varies with differential pressure, see V402-5.
(1) Calculation of the minimum pilot pressure at a ΔP of max. 10 bar with allowable backpressure (backpressure not recommended with liquids as waterhammer may occur). 63, 90 and 125 mm operators, 4 bar minimum pilot pressure version: add 1,5 bar to the minimum pilot pressure of chart VI, VII or VIII, page V402-5.

OPTIONS AND ACCESSORIES (see V435/V436)

- Signaling box or compact signaling unit
- Stroke limiter for opening
- Manual safety device
- Adapter plate for NAMUR pad mounting pilot
- ATEX 94/9/EC versions for potentially explosive atmospheres

INSTALLATION

- The valves can be mounted in any position without affecting operation
- Compatible with ASTM 1, 2 and 3 oils
- Installation/maintenance instructions are included with each valve

SPARE PARTS KITS

DN	spare parts kit no.
	Ø 63-90-125 mm
25	**C140013**
32	**C140014**
40	**C140015**
50	**C140016**

ORDERING EXAMPLES:

T 290 **A** 142
T 290 **A** 143 **SM2**
T 290 **A** 166

pipe thread
basic number
suffix

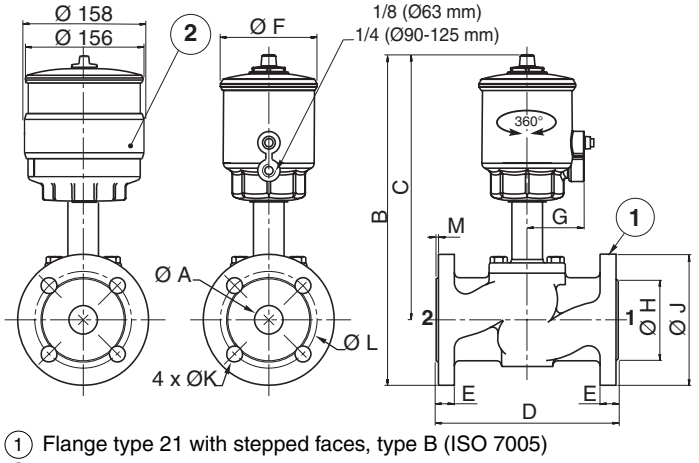
ORDERING EXAMPLES KITS:

C140013
C140014
C140016

basic number

DIMENSIONS (mm), WEIGHT (kg)

TYPE 01-02-03
63, 90 and 125 mm operators
Entry:
under the disc at 2
above the disc at 1



(1) Flange type 21 with stepped faces, type B (ISO 7005)
(2) Operator dia. 125 mm, NO function

type	operator diameter	ØA	B	C	D	E	ØF	G	ØH	ØJ	ØK	ØL	M	weight (2)
01	63	25	291	233	160	16	85	50,5	68	115	14	85	2	4,7
		32	315	245	180	18	85	50,5	78	140	19	100	2	7,6
		40	331	256	200	18	85	50,5	88	150	19	110	3	8,8
		50	356	273	230	20	85	50,5	102	165	19	125	3	12,2
02	90	25	306	249	160	16	118	67	68	115	14	85	2	5,3
		32	327	257	180	18	118	67	78	140	19	100	2	8,2
		40	343	268	200	18	118	67	88	150	19	110	3	9,4
		50	367	285	230	20	118	67	102	165	19	125	3	12,8
03	125	32	381	311	180	18	156	86	78	140	19	100	2	10,7
		40	397	322	200	18	156	86	88	150	19	110	3	11,9
		50	421	338	230	20	156	86	102	165	19	125	3	15,3

(2) Weight of valve without pilot. Add 0,2 for dia. 125 mm operator NO.
Solenoid pilot valves: see V439 (63 mm operator) / V443 (90 and 125 mm operators).