



UOP N.V. Noorderlaan 147, B-2030 Antwerp, Belgium

**AUTOMATIC BUTTERFLY VALVE****PROJECT SPECIFICATION**

Number

E-H6280-241

Sheet : 4 of 15

By : F. Heyman

Rev.

3

R  
E  
V

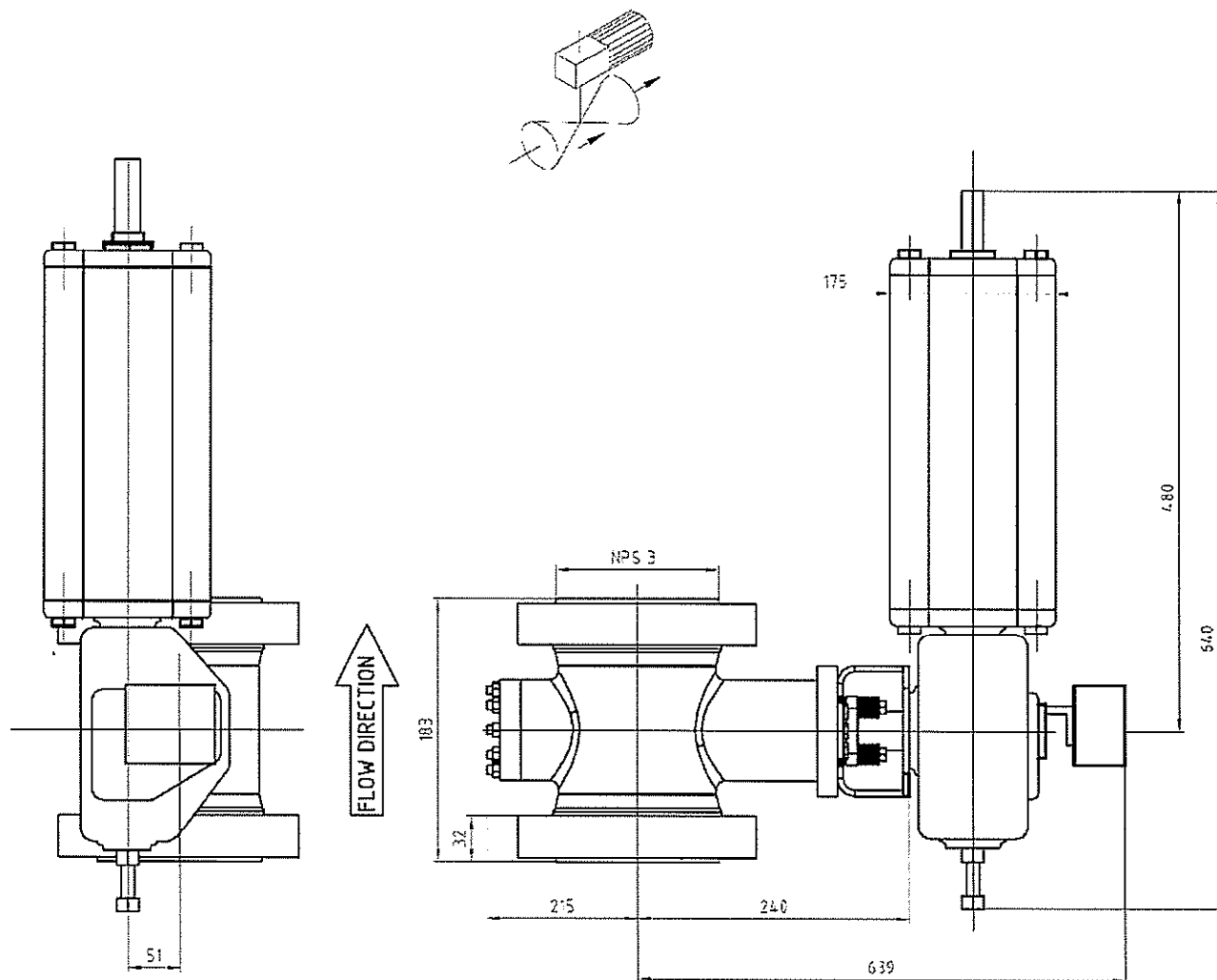
1	TAG NO.	U-XV75012, 75022, 75032, 75042, 75052, 75062	
2		U-XV75072, 75082, 75092, 75102	
3	QUANTITY	10	
4	SERVICE	PRODUCT	
5	MEDIUM   COMPOSITION   MOLECULAR WEIGHT	HYDROGEN / H <sub>2</sub> / 2,03	
6	AMBIENT TEMPERATURE MIN. / MAX.	- 46 / + 36 °C ACTUATOR POSITIONER LIMIT SW ( note 1)	
7	MINIMUM DESIGN METAL TEMPERATURE	-34 °C FOR VALVE BODY AND SEALS	
8	OPERATING TEMPERATURE MIN. / MAX.	45,0 / 45,0 °C	
9	OPERATING FLOW COND. 1 / 2 / 3	6804 / 17010 / 31400 Nm <sup>3</sup> /h	
10	PRESSURE UPSTREAM COND. 1 / 2 / 3	38,33 / 38,32 / 38,28 kg/cm <sup>2</sup> g	
11	DP COND. 1 / 2 / 3	0,006 / 0,042 / 0,143 kg/cm <sup>2</sup>	
12	DP IN CLOSED POSITION	39,0 kg/cm <sup>2</sup>	
13	REQUIRED C <sub>v</sub> COND. 1 / 2 / 3	162 / 162 / 162	
14	VALVE BODY SIZE   RATING   STYLE	DN 80 / 300 lbs / DOUBLE FLANGED	
15	SELECTED CV   CHARACTERISTIC	180 / ON-OFF	③
16	BODY MATERIAL	ASTM 352 LCB ( -34°C)	
17	FLANGE RATING   FLANGE FACE FINISH	300 lbs / SMOOTH FINISH 3.2 - 6.3 µmRA	
18	FACE TO FACE STD.   FACE TO FACE LENGTH	LARGE FEMALE FACE ANSI B16.5a / 180MM	③
19	VALVE SERVICE STANDARD	PSA HIGH CYCLING DUTY	
20	VALVE CYCLIC SERVICE UNI / BI-DIRECTIONAL	UNIDIRECTIONAL	
21	VALVE INITIAL CONTROL POSITION	0 - 25%	
22	SHAFT POSITION FLOW DOWN / UPSTREAM	FLOW SHAFT DOWNSTREAM	
23	BEARINGS AND EXCLUDER RING MATERIAL	FOR HIGH CYCLE BUTTERFLY VALVE	
24	SHAFT PACKING TYPE   MATERIAL	LIFE LOADED / PTFE	
25	DISC   PINS   SHAFT MATERIAL	ASTM A487 CA 6 NM / MFR STD / ASME 420	
26	SEAT TYPE   MATERIAL	SOFT SEAT / FKM (VITON)	
27	LEAKAGE RATE (CLASS TO B16.104)	CLASS VI BUBBLE TIGHT	
28	ACTUATOR TYPE / MOUNTING POSITION	PISTON, SPRING RETURN / A-HU	③
29	ACTUATOR SIZE / AIR CONNECTION SIZE	B1JU10/40C / 3/8" NPT	③
30	ACTUATOR ACTION	AIR TO OPEN	
31	AIR SUPPLY PRESSURE MIN. / NORM. / MAX.	3,5 / 4,5 / 6,0 kg/cm <sup>2</sup> g	
32	SPRING TYPE / ACTION	SINGLE SPRING / SPRING TO CLOSE	
33	NUMBER OF CYCLES PER YEAR	+/- 110000	
34	VALVE DUTY ON/OFF or CONTROL	HIGH CYCLE DUTY / ON-OFF	
35	VALVE POSITIONER MODEL	NOT REQUIRED	
36	POSITIONER TYPE		
37	CALIBRATED RANGE		
38	AIR SUPPLY PRESSURE / AIR CONNECTION	4,5 kg/cm <sup>2</sup> g / NPTF	
39	AIR FILTER / REGULATOR	NOT REQUIRED	
40	SOLENOID	SOLENOID INSTALLED BY OTHERS	
41	PROXIMITY SWITCH / POSITION	QN44K05HDM	③
42	TRAVEL STOP	STANDARD	
43	TUBING & FITTING MATERIAL / SIZE	NOT REQUIRED	
44	VALVE SUPPLIER	METSO AUTOMATION	
45	VALVE TYPE NO.	BN3DY03YTY-Z-B1JU10/40CL	③
46	REMARKS	Electrical Certificate for -40°C. Functional	
47		hall be guaranteed for -46°C ambient	

This information is proprietary and shall not be disclosed outside your organisation, nor shall it be duplicated, used, or disclosed for any purpose other than as permitted under written agreement with UOP.

17000000  
19000000 P

Dimensions are maximum values ( given in millimeters). Weight is approximate value ( given in kgs).

MOUNTING POSITION A-HU



**BUTTERFLY VALVE SIZE 80 (03")**

MODEL: BN3DY03YTY

RATING: ASME B16.5 class 300

FLANGE DRILLING TO ASME B16.5 class 300

FACING: ASME B16.5 LARGE FEMALE

**ACTUATOR**

TYPE: B1JU10/40CL

**ACCESSORIES**

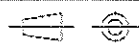
04 LIMIT SWITCH METSO, QN44K05HDM 2X M20x1,5

PIPING AND FITTINGS: mm. AISI 316L / AISI 316 PARKER

TOTAL WEIGHT: 95 kg

TAG No: U-XV75012, 75022, 75032, 75042, 75052,  
U-XV75062, 75072, 75082, 75092, 75102

0	13.04.16	BO
REV.	DATE	DRW



CERTIFIED DIMENSIONAL DRAWING



Metso Automation

DIM 0001428120\_006


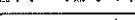
BN3DY03YTY-Z-B1JU10/40CL

AIR FAILURE	CLOSE
ELECTRIC FAILURE	-

2. PNEUMATIC ACTUATOR Neles B1JU10/40CL  
4. LIMIT SWITCH Metso QN44K05HDM

Tubing: mm, AISI316L  
Fittings: Parker, AISI316

	INSTRUMENTATION DRAWING	PVM DATE 12.04.2016	PIRT. DWN FK	TARK. CHECK. BO	HYV. APPR. FK
	Metso Automation	HELSINKI FINLAND		ENT. OLD NO.	UUSI NEW NO.
TAG-No.: U-XV75012, 75022, 75032, 75042, 75052, U-XV75062, 75072, 75082, 75092, 75102			D INS0001428120 004		
			MICROFILM		
			MUUTOS ISSUE		

Tubing: mm, AISI316L  
Fittings: Parker, AISI316



UOP N.V. Noorderlaan 147, B-2030 Antwerp, Belgium

**AUTOMATIC BUTTERFLY VALVE****PROJECT SPECIFICATION**

Number

E-H6280-241

Rev.

3

Sheet : 3 of 15

By : F. Heyman

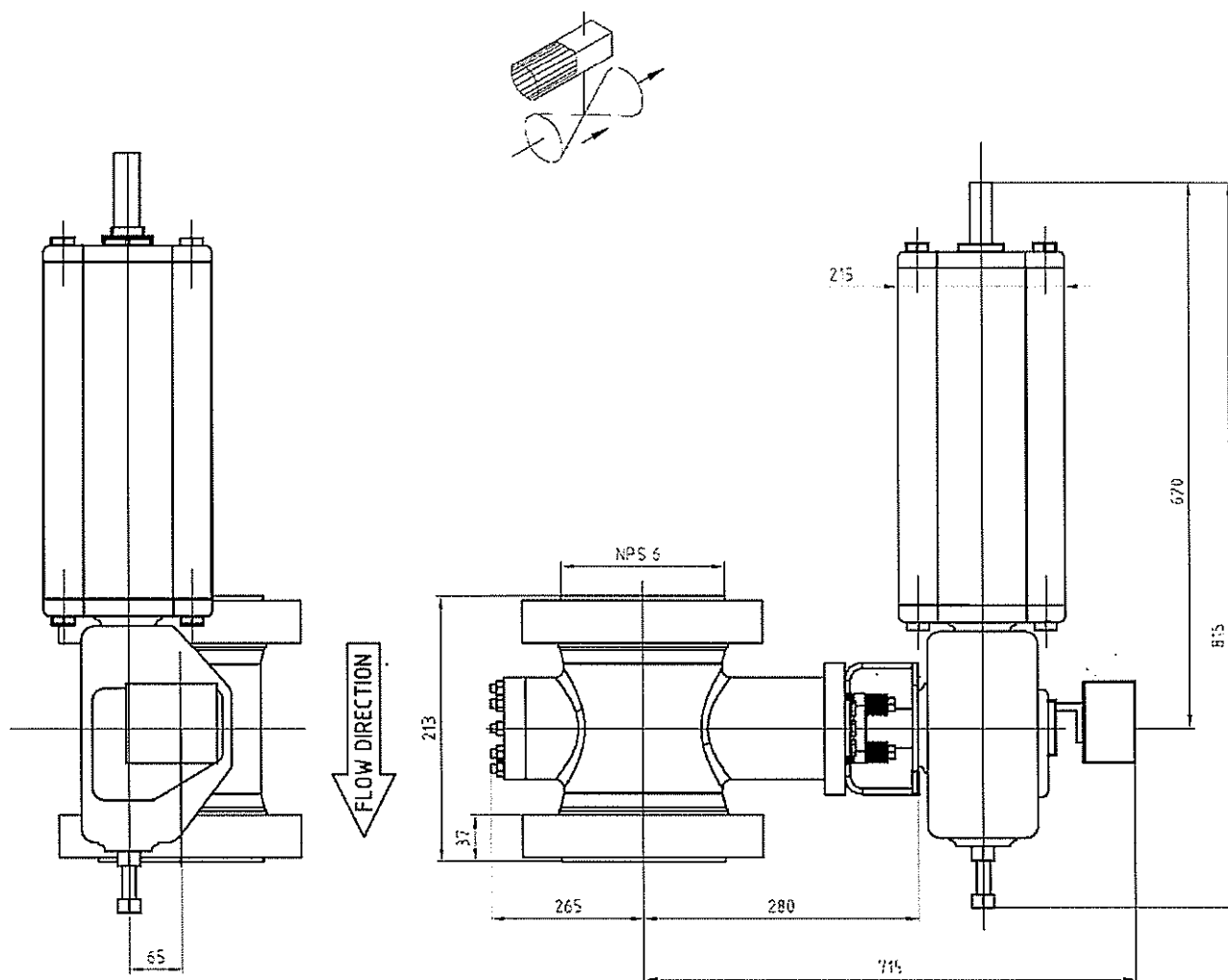
R  
E  
V

1	TAG NO.	U-XCV75011, 75021, 75031, 75041, 75051, 75061	
2		U-XCV75071, 75081, 75091, 75101	
3	QUANTITY	10	
4	SERVICE	FEED / REPRESSURISATION	
5	MEDIUM   COMPOSITION   MOLECULAR WEIGHT	FEED GAS / H <sub>2</sub> , C <sub>1</sub> -C <sub>6</sub> , N <sub>2</sub> , H <sub>2</sub> O / 7,23	
6	AMBIENT TEMPERATURE MIN. / MAX.	-46 / +36 °C ACTUATOR POSITIONER LIMIT SW ( note 1)	
7	MINIMUM DESIGN METAL TEMPERATURE	-34 °C FOR VALVE BODY AND SEALS	
8	OPERATING TEMPERATURE MIN. / MAX.	40,0 / 40,0 °C	
9	OPERATING FLOW COND. 1 / 2 / 3	4480 / 11870 / 36270 Nm <sup>3</sup> /h	
10	PRESSURE UPSTREAM COND. 1 / 2 / 3	38,99 / 38,94 / 38,88 kg/cm <sup>2</sup> g	
11	DP COND. 1 / 2 / 3	10,523 / 9,785 / 0,033 kg/cm <sup>2</sup>	
12	DP IN CLOSED POSITION	39,0 kg/cm <sup>2</sup>	
13	REQUIRED C <sub>v</sub> COND. 1 / 2 / 3	5,7 / 15,6 / 730	
14	VALVE BODY SIZE   RATING   STYLE	DN 150 / 300 lbs / DOUBLE FLANGED	
15	SELECTED CV   CHARACTERISTIC	920 / EQUAL PERCENTAGE	③
16	BODY MATERIAL	ASTM 352 LCB ( -34°C)	
17	FLANGE RATING   FLANGE FACE FINISH	300 lbs / SMOOTH FINISH 3.2 - 6.3 µmRA	
18	FACE TO FACE STD.   FACE TO FACE LENGTH	LARGE FEMALE FACE ANSI B16.5a / 210MM	③
19	VALVE SERVICE STANDARD	PSA HIGH CYCLING DUTY	
20	VALVE CYCLIC SERVICE UNI / BI-DIRECTIONAL	UNIDIRECTIONAL	
21	VALVE INITIAL CONTROL POSITION	0 - 25%	
22	SHAFT POSITION FLOW DOWN / UPSTREAM	FLOW SHAFT DOWNSTREAM	
23	BEARINGS AND EXCLUDER RING MATERIAL	FOR HIGH CYCLE BUTTERFLY VALVE	
24	SHAFT PACKING TYPE   MATERIAL	LIFE LOADED / PTFE	
25	DISC   PINS   SHAFT MATERIAL	ASTM A487 CA 6 NM / MFR STD / ASME 420	
26	SEAT TYPE   MATERIAL	SOFT SEAT / FKM (VITON)	
27	LEAKAGE RATE (CLASS TO B16.104)	CLASS VI BUBBLE TIGHT	
28	ACTUATOR TYPE / MOUNTING POSITION	PISTON, SPRING RETURN / C-HU	③
29	ACTUATOR SIZE / AIR CONNECTION SIZE	B1JU12-55C / 1/2" NPT	
30	ACTUATOR ACTION	AIR TO OPEN	
31	AIR SUPPLY PRESSURE MIN. / NORM. / MAX.	3,5 / 4,5 / 6,0 kg/cm <sup>2</sup> g	
32	SPRING TYPE / ACTION	SINGLE SPRING / SPRING TO CLOSE	
33	NUMBER OF CYCLES PER YEAR	+/- 105120	
34	VALVE DUTY ON/OFF or CONTROL	HIGH CYCLE DUTY / CONTROL	
35	VALVE POSITIONER MODEL	Metso, Smart ND9103HX7TY	
36	POSITIONER TYPE	SMART ELECTRO / PNEUMATIC	
37	CALIBRATED RANGE	4 - 20 mA	
38	AIR SUPPLY PRESSURE / AIR CONNECTION	4,5 kg/cm <sup>2</sup> g / NPTF	
39	AIR FILTER / REGULATOR	NOT REQUIRED	
40	BOOSTER	MOORE 61H 1/4"NPT	③
41	VALVE POSITION TRANSMITTER	0-100 % INCORPORATED IN POSITIONER EEx ia IIC T6	
42	TRAVEL STOP	STANDARD	
43	TUBING & FITTING MATERIAL / SIZE	FOR TUBE AND FITTINGS REFER TO E-H6280-241T	
44	VALVE SUPPLIER	METSO AUTOMATION	
45	VALVE TYPE NO.	BN3DY06YTY-Z-B1JU12/55CL	
46	REMARKS :	В комплект поставки должен входить комплект ical Certificate for -40°C. Functional	
47		крепежа (прокладки, шпильки, гайки). ge guaranteed for -46°C ambient	

This information is proprietary and shall not be disclosed outside your organisation, nor shall it be duplicated, used, or disclosed for any purpose other than as permitted under written agreement with UOP.

Dimensions are maximum values ( given in millimeters). Weight is approximate value ( given in kgs).

# MOUNTING POSITION C-HU



## BUTTERFLY VALVE SIZE 150 (06")

MODEL: BN3DY06YTY

RATING: ASME B16.5 class 300

FLANGE DRILLING TO ASME B16.5 class 300

FACING: ASME B16.5 LARGE FEMALE

## ACTUATOR

TYPE: B1JU12/55CL

## ACCESSORIES

01. POSITIONER METSO, ND9103HXT-A7 1/4 NPT M20x1,5

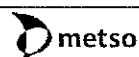
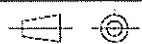
23. VOLUME BOOSTER MOORE, 61H 1/4 NPT

PIPING AND FITTINGS: mm. AISI 316L / AISI 316 PARKER

TOTAL WEIGHT: 170 kg

TAG No: U-XV75011, 75021, 75031, 75041, 75051,  
U-XV75061, 75071, 75081, 75091, 75101

0	13/04/16	B0
REV.	DATE	DRW



Metso Automation

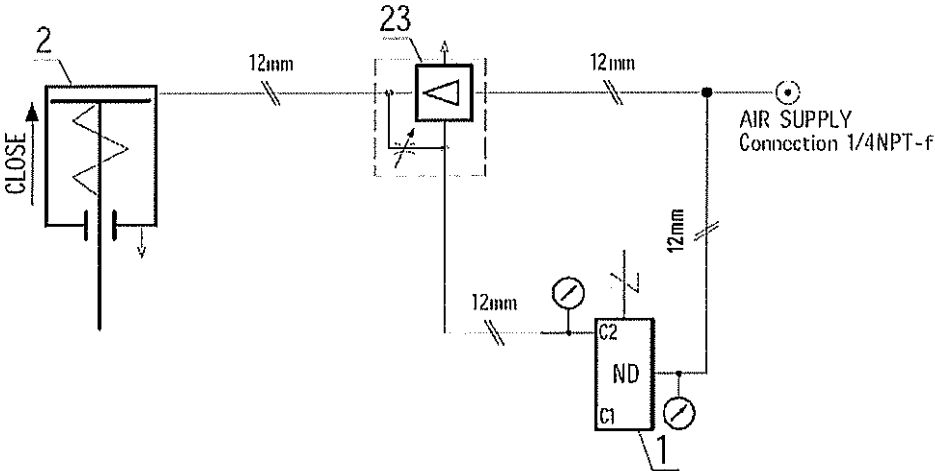
CERTIFIED DIMENSIONAL DRAWING

DIM 0001428120\_001

BN3DY06YTY-Z-B1JU12/55CL


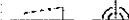
ELECTRIC CONDUIT ENTRIES			
DEVICE	CONDUIT ENTRY	Qty.	CABLE GLAND, Qty.
POSITIONER	M20x1.5	1	No

STROKING TIME	Min.	/	Max.
OPENING TIME sec.	-	/	-
CLOSING TIME sec.	-	/	-
AIR FAILURE	CLOSE		
ELECTRIC FAILURE	CLOSE		



1. VALVE CONTROLLER Metso ND9103HX7TY-A7
2. PNEUMATIC ACTUATOR Neles B1JU12/55CL
23. VOLUME BOOSTER Moore 61H

Tubing: mm, AISI316L  
 Fittings: Parker, AISI316

	INSTRUMENTATION DRAWING	PVM DATE 12.04.2016	PIIRI, DWN FK	TARK. CHECK BO	HYV. APPR FK
	Metso Automation	HELSINKI FINLAND		ENT, OLD NO.	UUSI NEW NO.
TAG-No.: U-XV75011, 75021, 75031, 75041, 75051, U-XV75061, 75071, 75081, 75091, 75101			D INS0001428120 001		
			MICROFILM		
			MUUTOS ISSUE		



UOP N.V. Noorderlaan 147, B-2030 Antwerp, Belgium

## PROJECT SPECIFICATION

Number

E-H6280-241

Rev.

3

Sheet : 5 of 15

By : F. Heyman

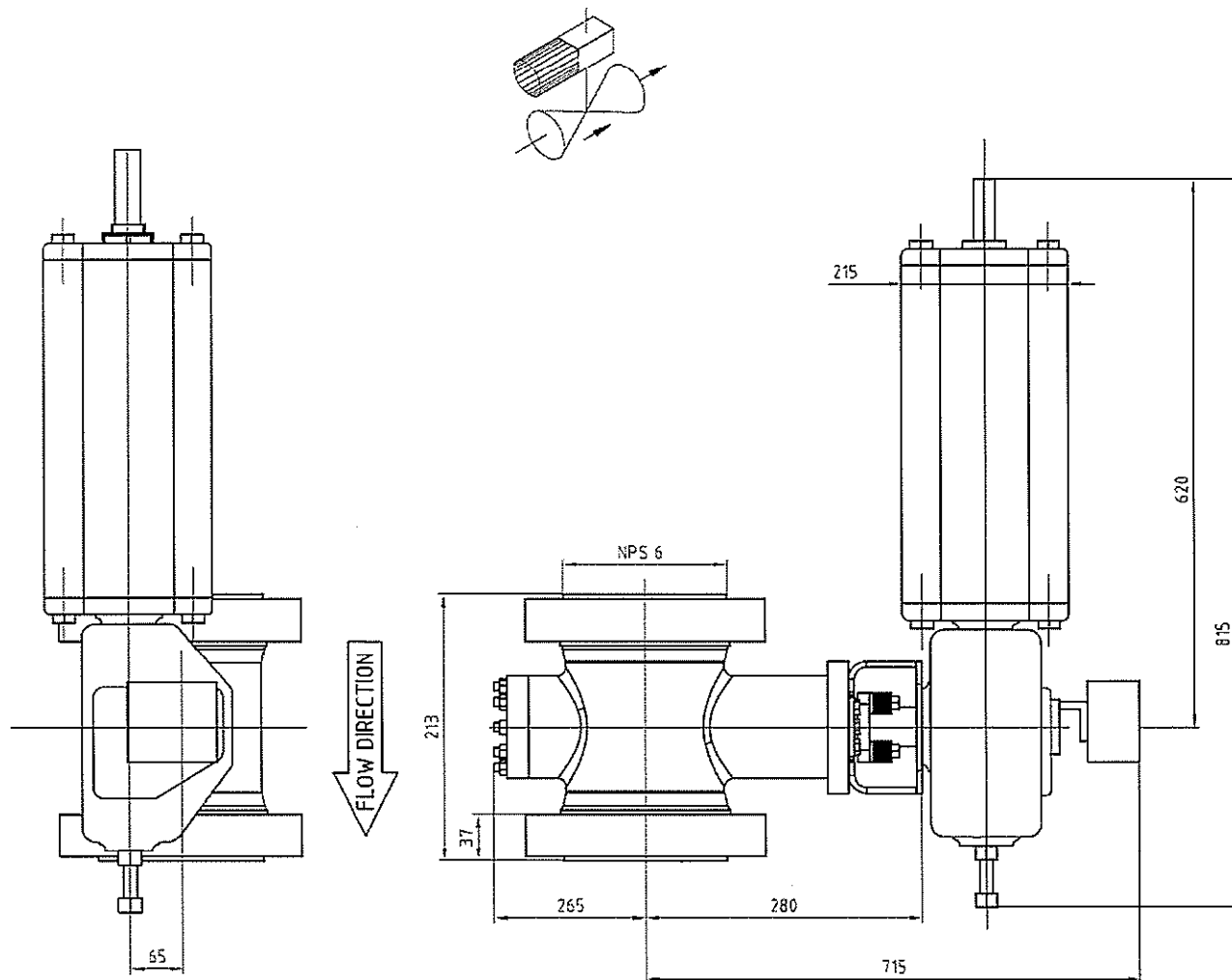
AUTOMATIC BUTTERFLY VALVER  
E  
V

1	TAG NO.	U-XCV75014, 75024, 75034, 75044, 75054, 75064	
2		U-XCV75074, 75084, 75094, 75104	
3	QUANTITY	10	
4	SERVICE	DUMP / PURGE	
5	MEDIUM   COMPOSITION   MOLECULAR WEIGHT	OFF GAS / H <sub>2</sub> , C <sub>1</sub> -C <sub>6</sub> , C <sub>1</sub> , N <sub>2</sub> , H <sub>2</sub> O / 21,79	
6	AMBIENT TEMPERATURE MIN. / MAX.	- 46 / + 36 °C ACTUATOR POSITIONER LIMIT SW ( note 1)	
7	MINIMUM DESIGN METAL TEMPERATURE	-34 °C FOR VALVE BODY AND SEALS	
8	OPERATING TEMPERATURE MIN. / MAX.	30,0 / 30,0 °C	
9	OPERATING FLOW COND. 1 / 2 / 3	2520 / 2930 / 6320 Nm <sup>3</sup> /h	
10	PRESSURE UPSTREAM COND. 1 / 2 / 3	5,66 / 1,56 / 5,65 kg/cm <sup>2</sup> g	
11	DP COND. 1 / 2 / 3	4,028 / 0,010 / 3,895 kg/cm <sup>2</sup>	
12	DP IN CLOSED POSITION	39,0 kg/cm <sup>2</sup>	
13	REQUIRED C <sub>v</sub> COND. 1 / 2 / 3	23,5 / 730 / 59	
14	VALVE BODY SIZE   RATING   STYLE	DN 150 / 300 lbs / DOUBLE FLANGED	
15	SELECTED CV   CHARACTERISTIC	920 / EQUAL PERCENTAGE	
16	BODY MATERIAL	ASTM 352 LCB ( -34°C)	
17	FLANGE RATING   FLANGE FACE FINISH	300 lbs / SMOOTH FINISH 3.2 - 6.3 µmRA	
18	FACE TO FACE STD.   FACE TO FACE LENGTH	LARGE FEMALE FACE ANSI B16.5a / 210MM	②
19	VALVE SERVICE STANDARD	PSA HIGH CYCLING DUTY	
20	VALVE CYCLIC SERVICE UNI / BI-DIRECTIONAL	UNIDIRECTIONAL	
21	VALVE INITIAL CONTROL POSITION	0 - 25%	
22	SHAFT POSITION FLOW DOWN / UPSTREAM	FLOW SHAFT DOWNSTREAM	
23	BEARINGS AND EXCLUDER RING MATERIAL	FOR HIGH CYCLE BUTTERFLY VALVE	
24	SHAFT PACKING TYPE   MATERIAL	LIFE LOADED / PTFE	
25	DISC   PINS   SHAFT MATERIAL	ASTM A487 CA 6 NM / MFR STD / ASME 420	
26	SEAT TYPE   MATERIAL	SOFT SEAT / FKM (VITON)	
27	LEAKAGE RATE (CLASS TO B16.104)	CLASS VI BUBBLE TIGHT	
28	ACTUATOR TYPE / MOUNTING POSITION	PISTON, SPRING RETURN / C-HU	③
29	ACTUATOR SIZE / AIR CONNECTION SIZE	B1JU10-40C / 3/8" NPT	③
30	ACTUATOR ACTION	AIR TO OPEN	
31	AIR SUPPLY PRESSURE MIN. / NORM. / MAX.	3,5 / 4,5 / 6,0 kg/cm <sup>2</sup> g	
32	SPRING TYPE / ACTION	SINGLE SPRING / SPRING TO CLOSE	
33	NUMBER OF CYCLES PER YEAR	+ / - 105120	
34	VALVE DUTY ON/OFF or CONTROL	HIGH CYCLE DUTY / CONTROL	
35	VALVE POSITIONER MODEL	Metso, Smart ND9103HX7TY	
36	POSITIONER TYPE	SMART ELECTRO / PNEUMATIC	
37	CALIBRATED RANGE	4 - 20 mA	
38	AIR SUPPLY PRESSURE / AIR CONNECTION	4,5 kg/cm <sup>2</sup> g / NPTF	
39	AIR FILTER / REGULATOR	NOT REQUIRED	
40	BOOSTER	MOORE, 61H 1/4" NPT	
41	VALVE POSITION TRANSMITTER	0-100 % INCORPORATED IN POSITIONER EEx ia IIC T6	
42	TRAVEL STOP	STANDARD	
43	TUBING & FITTING MATERIAL / SIZE	FOR TUBE AND FITTINGS REFER TO E-H6280-241T	
44	VALVE SUPPLIER	METSO AUTOMATION	
45	VALVE TYPE NO.	BN3DY06YTY-Z-B1JU10/40CL	③
46	REMARKS : В комплект поставки должен входить комплект	Electrical Certificate for -40°C. Functional	
47	крепёжа (прокладки, шпильки, гайки).	shall be guaranteed for -46°C ambient	

This information is proprietary and shall not be disclosed outside your organization, nor shall it be duplicated, used, or disclosed for any purpose other than as permitted under written agreement with UOP.

Dimensions are maximum values ( given in millimeters). Weight is approximate value ( given in kgs).

# MOUNTING POSITION: C-HU



BUTTERFLY VALVE SIZE 150 (06")  
 MODEL: BN3DY06YTY  
 RATING: ASME B16.5 class 300  
 FLANGE DRILLING TO ASME B16.5 class 300  
 FACING: ASME B16.5 LARGE FEMALE

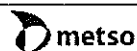
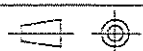
ACTUATOR  
 TYPE: B1JU12/55CL

ACCESSORIES  
 01. POSITIONER METSO, ND9103HX7TY 1/4 NPT M20x1,5  
 23. VOLUME BOOSTER MOORE, 61H 1/4 NPT

PIPING AND FITTINGS: mm, AISI 316L / AISI 316 PARKER  
 TOTAL WEIGHT: 170 kg

TAG №: U-XV75014, 75024, 75034, 75044, 75054,  
 U-XV75064, 75074, 75084, 75094, 75104

0	13.04.16	BO
REV.	DATE	DRW



Metso Automation

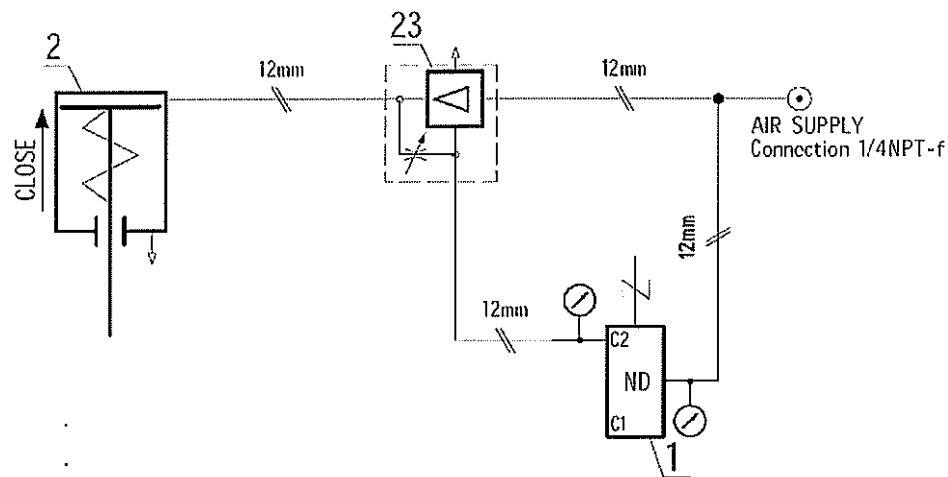
CERTIFIED DIMENSIONAL DRAWING

DIM 0001428120\_003

BN3DY06YTY-Z-B1JU12/55CL


ELECTRIC CONDUIT ENTRIES			
DEVICE	CONDUIT ENTRY	Qty.	CABLE GLAND, Qty.
POSITIONER	M20x1.5	1	No

STROKING TIME	Min.	/	Max.
OPENING TIME sec.	-	/	-
CLOSING TIME sec.	-	/	-
AIR FAILURE	CLOSE		
ELECTRIC FAILURE	CLOSE		



1. VALVE CONTROLLER Metso ND9103HX7TY
2. PNEUMATIC ACTUATOR Neles B1JU10/40CL
23. VOLUME BOOSTER Moore 61H

Tubing: mm, AISI316L  
Fittings: Parker, AISI316

	INSTRUMENTATION DRAWING		PVM DATE 12.04.2016	PIRT. DWN FK	TARK. CHECK BO	HYV. APPR. FK
	Metso Automation		HELSINKI FINLAND	ENT. OLD NO.	UUSI NEW NO.	
TAG-No.: U-XV75014, 75024, 75034, 75044, 75054, U-XV75064, 75074, 75084, 75094, 75104				D	INS0001428120 002	
				MICROFILM		
MUUTOS ISSUE						



UOP N.V. Noorderlaan 147, B-2030 Antwerp, Belgium

## PROJECT SPECIFICATION

Number

E-H6280-241

Rev.

3

Sheet : 6 of 15

By : F. Heyman

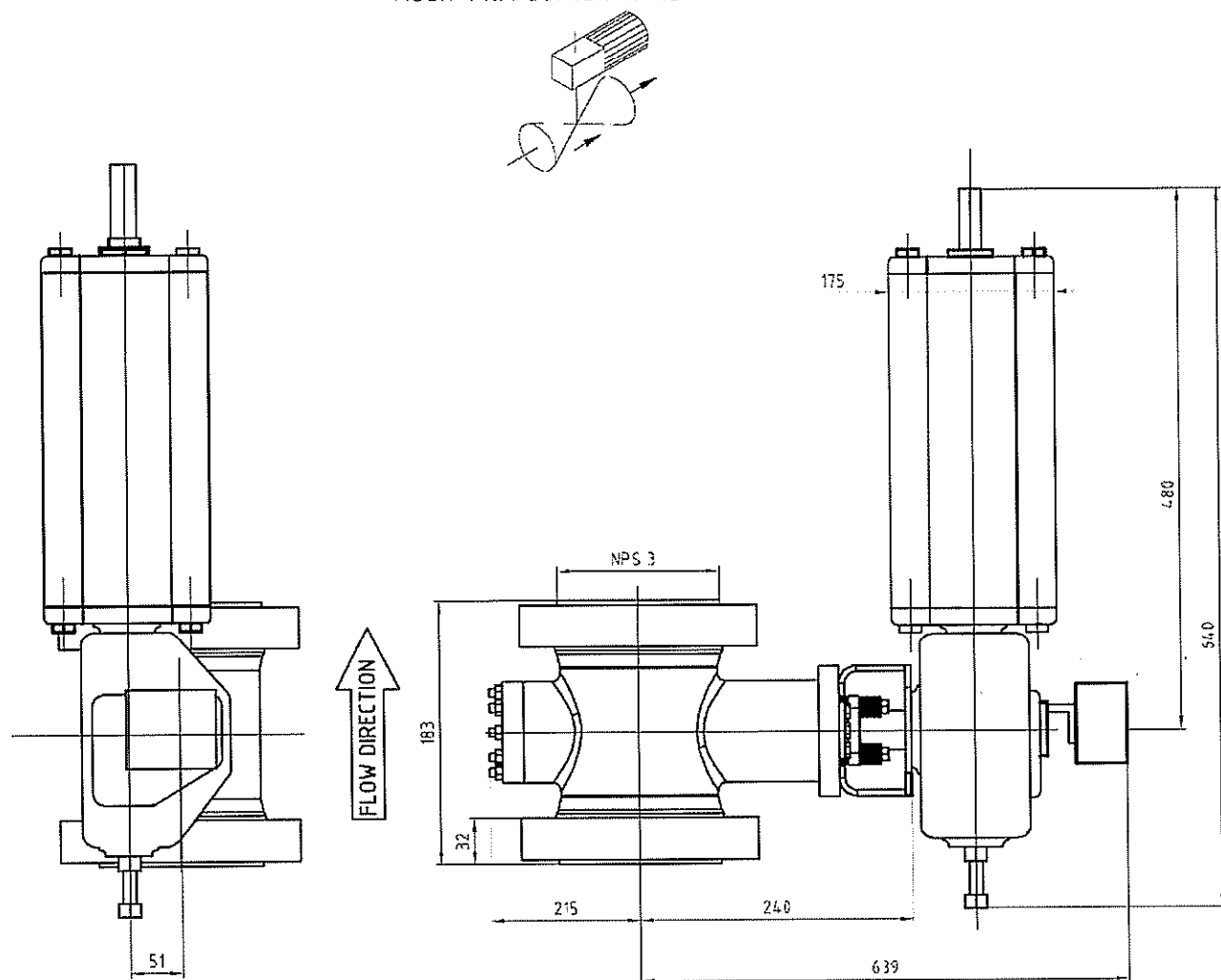
**AUTOMATIC BUTTERFLY VALVE**

REV

1	TAG NO.	U-XCV75015, 75025, 75035, 75045, 75075, 75065	
2		U-XCV75075, 75085, 75095, 75105	
3	QUANTITY	10	
4	SERVICE	EQUALISATION 1 & 2	
5	MEDIUM   COMPOSITION   MOLECULAR WEIGHT	HYDROGEN / H <sub>2</sub> / 2,03	
6	AMBIENT TEMPERATURE MIN. / MAX.	-46 / +36 °C ACTUATOR POSITIONER LIMIT SW ( note 1)	
7	MINIMUM DESIGN METAL TEMPERATURE	-34 °C FOR VALVE BODY AND SEALS	
8	OPERATING TEMPERATURE MIN. / MAX.	45,0 / 45,0 °C	
9	OPERATING FLOW COND. 1 / 2 / 3	15830 / 35230 / 41980 Nm <sup>3</sup> /h	
10	PRESSURE UPSTREAM COND. 1 / 2 / 3	28,95 / 20,75 / 29,50 kg/cm <sup>2</sup> g	
11	DP COND. 1 / 2 / 3	0,051 / 5,731 / 6,118 kg/cm <sup>2</sup>	
12	DP IN CLOSED POSITION	39,0 kg/cm <sup>2</sup>	
13	REQUIRED C <sub>v</sub> COND. 1 / 2 / 3	162 / 46,6 / 45,0	
14	VALVE BODY SIZE   RATING   STYLE	DN 80 / 300 lbs / DOUBLE FLANGED	
15	SELECTED CV   CHARACTERISTIC	180 / EQUAL PERCENTAGE	③
16	BODY MATERIAL	ASTM 352 LCB ( -34°C)	
17	FLANGE RATING   FLANGE FACE FINISH	300 lbs / SMOOTH FINISH 3.2 - 6.3 µmRA	
18	FACE TO FACE STD.   FACE TO FACE LENGTH	LARGE FEMALE FACE ANSI B16.5a / 180MM	③
19	VALVE SERVICE STANDARD	PSA HIGH CYCLING DUTY	
20	VALVE CYCLIC SERVICE UNI / BI-DIRECTIONAL	BI-DIRECTIONAL	
21	VALVE INITIAL CONTROL POSITION	0 - 25%	
22	SHAFT POSITION FLOW DOWN / UPSTREAM	FLOW SHAFT DOWNSTREAM	
23	BEARINGS AND EXCLUDER RING MATERIAL	FOR HIGH CYCLE BUTTERFLY VALVE	
24	SHAFT PACKING TYPE   MATERIAL	LIFE LOADED / PTFE	
25	DISC   PINS   SHAFT MATERIAL	ASTM A487 CA 6 NM / MFR STD / ASME 420	
26	SEAT TYPE   MATERIAL	SOFT SEAT / FKM (VITON)	
27	LEAKAGE RATE (CLASS TO B16.104)	CLASS VI BUBBLE TIGHT	
28	ACTUATOR TYPE / MOUNTING POSITION	PISTON, SPRING RETURN / A-HU	③
29	ACTUATOR SIZE / AIR CONNECTION SIZE	B1JU10/40C / 3/8" NPT	
30	ACTUATOR ACTION	AIR TO OPEN	
31	AIR SUPPLY PRESSURE MIN. / NORM. / MAX.	3,5 / 4,5 / 6,0 kg/cm <sup>2</sup> g	
32	SPRING TYPE / ACTION	SINGLE SPRING / SPRING TO CLOSE	
33	NUMBER OF CYCLES PER YEAR	+ / - 210240	
34	VALVE DUTY ON/OFF or CONTROL	HIGH CYCLE DUTY / CONTROL	
35	VALVE POSITIONER MODEL	Metso, Smart ND9106HX7TY	
36	POSITIONER TYPE	SMART ELECTRO / PNEUMATIC	
37	CALIBRATED RANGE	4 - 20 mA	
38	AIR SUPPLY PRESSURE / AIR CONNECTION	4,5 kg/cm <sup>2</sup> g / NPTF	
39	AIR FILTER / REGULATOR	NOT REQUIRED	
40	BOOSTER	<del>QUICK EXHAUST REXROTH P52935-000-4</del>	③
41	PROXIMITY SWITCH / POSITION	0-100 % INCORPORATED IN POSITIONER EEx ia IIC T6	
42	TRAVEL STOP	STANDARD	
43	TUBING & FITTING MATERIAL / SIZE	FOR TUBE AND FITTINGS REFER TO E-H6280-241T	
44	VALVE SUPPLIER	METSO AUTOMATION	
45	VALVE TYPE NO.	3 BN3DY03YTY-Z-B1JU10/40CL	③
46	REMARKS : В комплект поставки должен входить комплект крепежа (прокладки, шпильки, гайки).	Electrical Certificate for -40°C. Functional shall be guaranteed for -46°C ambient	
47		This information is proprietary and shall not be disclosed outside your organisation, nor shall it be duplicated, used, or disclosed for any purpose other than as permitted under written agreement with UOP.	

Dimensions are maximum values ( given in millimeters). Weight is approximate value ( given in kgs).

# MOUJNTING PCOSITION A-HU



## BUTTERFLY VALVE SIZE 80 (03")

MODEL:BN3DY03YTY

RATING:ASME B16.5 class 300

FLANGE DRILLING TO ASME B16.5 class 300

FACING:ASME B16.5 LARGE FEMALE

## ACTUATOR

TYPE: B1JU10/40CL

## ACCESSORIES

04. POSITIONER METSO, ND9106HX7TY 1/4 NPT M20x1.5

~~24. QUICK EXHAUST VALVE REXROTH, R52035 0004, 1/2 NPT~~ НЕ ТРЕБУЕТСЯ

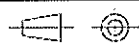
~~25. RESTRICTOR VALVE PARKER, 4F VCAR SS, 1/4 NPT~~ НЕ ТРЕБУЕТСЯ

PIPING AND FITTINGS: mm, AISI 316L / AISI 316 PARKER

TOTAL WEIGHT: 100 kg

TAG No: U-XV75015, 75025, 75035, 75045, 75055,  
U-XV75065, 75075, 75085, 75095, 75105

0	13.04.16	BO
REV.	DATE	DRW



Metso Automation

CERTIFIED DIMENSIONAL DRAWING

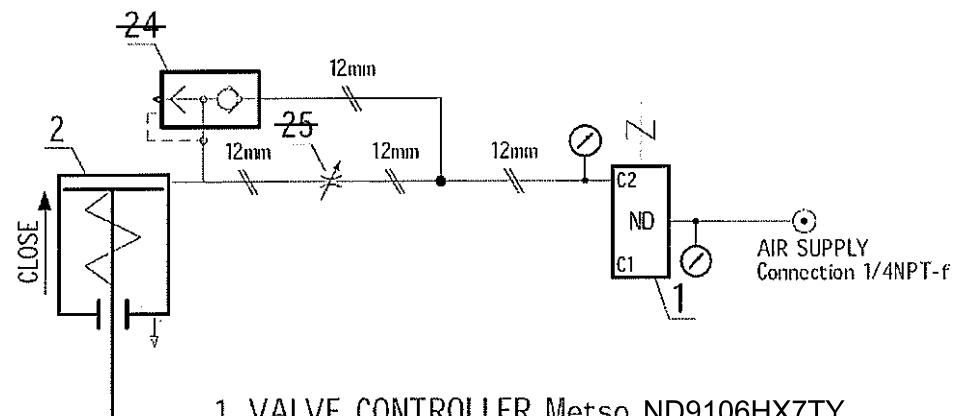
DIM 0001428120\_005

BN3DY03YTY-Z-B1JU10/40CL

## ELECTRIC CONDUIT ENTRIES

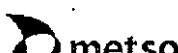
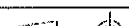
DEVICE	CONDUIT ENTRY	Qty.	CABLE GLAND, Qty.
POSITIONER	M20x1.5	1	No

STROKING TIME	Min.	/	Max.
OPENING TIME sec.	-	/	-
CLOSING TIME sec.	-	/	-
AIR FAILURE	CLOSE		
ELECTRIC FAILURE	CLOSE		



1. VALVE CONTROLLER Metso ND9106HX7TY  
 2. PNEUMATIC ACTUATOR Neles B1JU10/40CL  
~~24. QUICK EXHAUST VALVE Rexroth P52935-0004, 1/2NPT НЕ ТРЕБУЕТСЯ~~  
~~25. RESTRICTOR VALVE Parker 4F-V6AR-SS, 1/4NPT НЕ ТРЕБУЕТСЯ~~

Tubing: mm, AISI316L  
 Fittings: Parker, AISI316

	INSTRUMENTATION DRAWING	PVM DATE 12.04.2016	PIIRT. DWN FK	TARK. CHECK. BO	HYV. APPR. FK
	Metso Automation	HELSINKI FINLAND		ENT. OLD NO.	UUSI NEW NO.
TAG-No.: U-XV75015, 75025, 75035, 75045, 75055, U-XV75065, 75075, 75085, 75095, 75105			D INS0001428120 003		
			MICROFILM		
			MUUTOS ISSUE		



UOP N.V. Noorderlaan 147, B-2030 Antwerp, Belgium

**AUTOMATIC BUTTERFLY VALVE****PROJECT SPECIFICATION**

Number

E-H6280-241

Rev.

3

Sheet : 7 of 15

By : F. Heyman

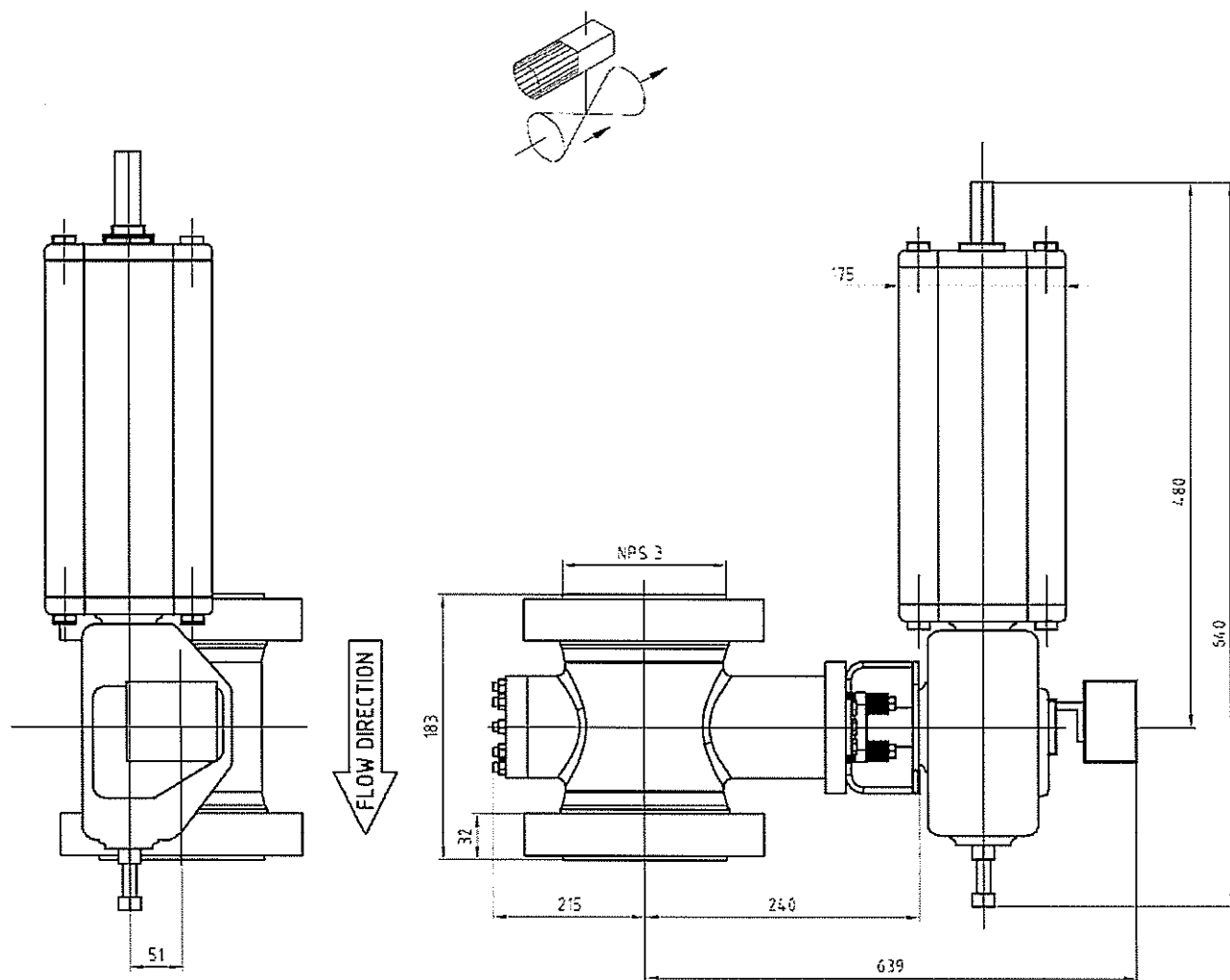
REV

1	TAG NO.	U-XCV75016, 75026, 75036, 75046, 75056	
2			
3	QUANTITY	5	
4	SERVICE	EQUALISATION 3	
5	MEDIUM   COMPOSITION   MOLECULAR WEIGHT	HYDROGEN / H <sub>2</sub> / 2,03	
6	AMBIENT TEMPERATURE MIN. / MAX.	-46 / +36 °C ACTUATOR POSITIONER LIMIT SW (note 1)	
7	MINIMUM DESIGN METAL TEMPERATURE	-34 °C FOR VALVE BODY AND SEALS	
8	OPERATING TEMPERATURE MIN. / MAX.	45.0 / 45.0 °C	
9	OPERATING FLOW COND. 1 / 2 / 3	12300 / 24260 / 30480 Nm <sup>3</sup> /h	
10	PRESSURE UPSTREAM COND. 1 / 2 / 3	7,85 / 13,26 / 17,94 kg/cm <sup>2</sup> g	
11	DP COND. 1 / 2 / 3	0,041 / 2,998 / 4,375 kg/cm <sup>2</sup>	
12	DP IN CLOSED POSITION	39,0 kg/cm <sup>2</sup>	
13	REQUIRED C <sub>v</sub> COND. 1 / 2 / 3	162 / 42 / 162	
14	VALVE BODY SIZE   RATING   STYLE	DN 80 / 300 lbs / DOUBLE FLANGED	
15	SELECTED CV   CHARACTERISTIC	180 / EQUAL PERCENTAGE	③
16	BODY MATERIAL	ASTM 352 LCB (-34°C)	
17	FLANGE RATING   FLANGE FACE FINISH	300 lbs / SMOOTH FINISH 3.2 - 6.3 µmRA	
18	FACE TO FACE STD.   FACE TO FACE LENGTH	LARGE FEMALE FACE ANSI B16.5a / 180MM	③
19	VALVE SERVICE STANDARD	PSA HIGH CYCLING DUTY	
20	VALVE CYCLIC SERVICE UNI / BI-DIRECTIONAL	BI-DIRECTIONAL	
21	VALVE INITIAL CONTROL POSITION		
22	SHAFT POSITION FLOW DOWN / UPSTREAM	FLOW SHAFT DOWNSTREAM	
23	BEARINGS AND EXCLUDER RING MATERIAL	FOR HIGH CYCLE BUTTERFLY VALVE	
24	SHAFT PACKING TYPE   MATERIAL	LIFE LOADED / PTFE	
25	DISC   PINS   SHAFT MATERIAL	ASTM A487 CA 6 NM / MFR STD / ASME 420	
26	SEAT TYPE   MATERIAL	SOFT SEAT / FKM (VITON)	
27	LEAKAGE RATE (CLASS TO B16.104)	CLASS VI BUBBLE TIGHT	
28	ACTUATOR TYPE / MOUNTING POSITION	PISTON, SPRING RETURN / C-HU	③
29	ACTUATOR SIZE / AIR CONNECTION SIZE	B1JU10/40C / 3/8" NPT	
30	ACTUATOR ACTION	AIR TO OPEN	
31	AIR SUPPLY PRESSURE MIN. / NORM. / MAX.	3,5 / 4,5 / 6,0 kg/cm <sup>2</sup> g	
32	SPRING TYPE / ACTION	SINGLE SPRING / SPRING TO CLOSE	
33	NUMBER OF CYCLES PER YEAR	+/- 210240	
34	VALVE DUTY ON/OFF or CONTROL	HIGH CYCLE DUTY / CONTROL	
35	VALVE POSITIONER MODEL	Metso, Smart ND9106HX7TY	
36	POSITIONER TYPE	SMART ELECTRO / PNEUMATIC	
37	CALIBRATED RANGE	4 - 20 mA	
38	AIR SUPPLY PRESSURE / AIR CONNECTION	4,5 kg/cm <sup>2</sup> g / NPTF	
39	AIR FILTER / REGULATOR	NOT REQUIRED	
40	BIOOSTER	<del>QUICK EXHAUST REXROTH P52935-000-4</del>	③
41	PROXIMITY SWITCH / POSITION	0-100 % INCORPORATED IN POSITIONER EEx ia IIC T6	
42	TRAVEL STOP	STANDARD	
43	TUBING & FITTING MATERIAL / SIZE	FOR TUBE AND FITTINGS REFER TO E-H6280-241T	
44	VALVE SUPPLIER	METSO AUTOMATION	
45	VALVE TYPE NO.	BN3DY03TY-Z-B1JU10/40CL	③
46	REMARKS	Electrical Certificate for -40°C. Functional	
47	В комплект поставки должен входить комплект крепежа (прокладки, шпильки, гайки). n shall be guaranteed for -46°C ambient		

This information is proprietary and shall not be disclosed outside your organisation, nor shall it be duplicated, used, or disclosed for any purpose other than as permitted under written agreement with UOP

Dimensions are maximum values ( given in millimeters). Weight is approximate value ( given in kgs).

# MOUNTING POSITION C-HU



## BUTTERFLY VALVE SIZE 80 (03")

MODEL: BN3DY03YTY

RATING: ASME B16.5 class 300

FLANGE DRILLING TO ASME B16.5 class 300

FACING: ASME B16.5 LARGE FEMALE

## ACTUATOR

TYPE: B1JU10/40CL

## ACCESSORIES

04. POSITIONER METSO, ND9106HX7TY 1/4 NPT V20x1,5

~~24. QUICK EXHAUST VALVE REXROTH, R52935-0004, 1/2 NPT~~ НЕ ТРЕБУЕТСЯ

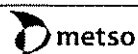
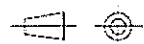
~~25. RESTRICTOR VALVE PARKER, 4F V6AR SS, 1/4 NPT~~ НЕ ТРЕБУЕТСЯ

PIPING AND FITTINGS: mm, AISI 316L / AISI 316 PARKER

TOTAL WEIGHT: 100 kg

TAG №: U-XV75016, 75026, 75036, 75046, 75056

0	13.04.16	BO
REV.	DATE	DRW



Metso Automation

CERTIFIED DIMENSIONAL DRAWING

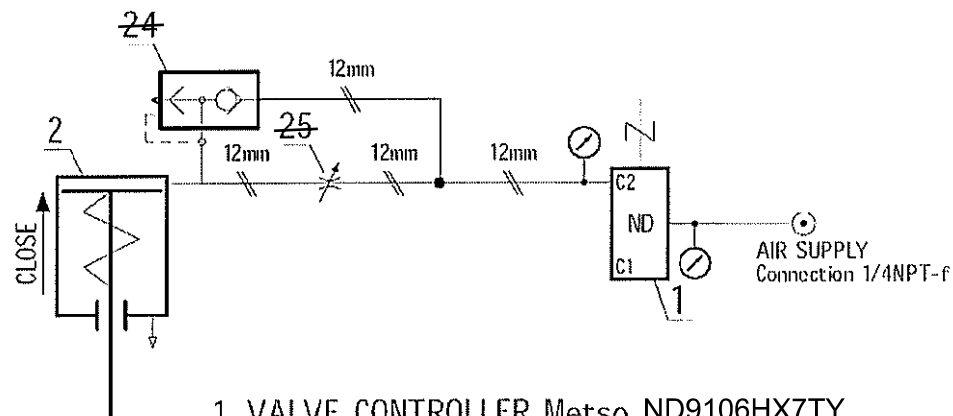
DIM 0001428120\_009

BN3DY03YTY-Z-B1JU10/40CL

## ELECTRIC CONDUIT ENTRIES

DEVICE	CONDUIT ENTRY	Qty.	CABLE GLAND, Qty.
POSITIONER	M20x1.5	1	No

STROKING TIME	Min.	/	Max.
OPENING TIME sec.	-	/	-
CLOSING TIME sec.	-	/	-
AIR FAILURE	CLOSE		
ELECTRIC FAILURE	CLOSE		



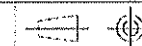
1. VALVE CONTROLLER Metso ND9106HX7TY
2. PNEUMATIC ACTUATOR Neles B1JU10/40CL
- ~~24. QUICK EXHAUST VALVE Rexroth P52935-0004, 1/2NPT НЕ ТРЕБУЕТСЯ~~
- ~~25. RESTRICTOR VALVE Parker 4F-VGAR-SS, 1/4NPT НЕ ТРЕБУЕТСЯ~~

Tubing: mm, AISI316L  
Fittings: Parker, AISI316



INSTRUMENTATION DRAWING

Metso Automation

PVM  
DATE 12.04.2016HELSINKI  
FINLANDPIRT.  
DWN FKTARK.  
CHECK BOHYV.  
APPR FKENT.  
OLD NO.UUSI  
NEW NO.

TAG-No.: U-XV75016, 75026, 75036, 75046, 75056

D INS0001428120 005

MICROFILM  
MUUTOS ISSUE