



NET4GAS, s.r.o

HP PIPELINE DN 1400, NODE KATEŘINSKÝ POTOK – NODE PŘIMDA

Line Valves DN 1400 - Datasheet

30.07.2018

DVZ

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REVISION HISTORY

Rev.	Date	Issue, Purpose	Prepared	Checked	Approved
001	30.07.2018	Approved	Mustafa	Balatinec	Schorling
000	12.06.2018	Approved	Mustafa	Balatinec	Schorling
B01	03.05.2018	Issue for Review	Mustafa	Balatinec	Schorling
A01	20.04.2018	Issue for IDC	Mustafa	Balatinec	Schorling

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12	Ball Valve – Gas Hydraulic (GHV-1.2)	DN 1400
RU PRIMDA - RU005		
13	Ball Valve – Electro Motor (MOV-1.7)	DN 1400

Note 1: LVS Jirkov is alternative location to LVS Vrskman. Only one LVS of those two shall be constructed, either Jirkov or Vrskman.

BALL VALVE - DN 1400

GENERAL INFORMATION					
1					
2	LOCATION	LVS JIRKOV - TU33S	5	QUANTITY	1 (Note 7)
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.2	7	P&ID-No.	C4G-HPPL-ILF-TU33S-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	UNDERGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	GAS HYDRAULIC WITH LBC (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	60 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION	ACC. TO CSN EN 60079-10
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL	N/A
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST	ČSN EN 10204 / 3.2
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Gas Hydraulic Valve (GHV) with Local and Remote Control and Monitoring Functionality and Line Break Control (LBC)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: LBC - Line Break Control shall be mechanical type. Pre-set pressure drop shall be 5 bar/min and shall be adjustable.				
109	Note 7: LVS Jirkov is alternative location to LVS Vrskman. Only one LVS of those two shall be constructed, either Jirkov or Vrskman.				
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BALL VALVE - DN 1400

GENERAL INFORMATION					
1					
2	LOCATION	LVS VRSKMAN - KS07B	5	QUANTITY	1 (Note 7)
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.1	7	P&ID-No.	C4G-HPPL-ILF-KS07B-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	UNDERGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	GAS HYDRAULIC WITH LBC (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	60 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION	ACC. TO CSN EN 60079-10
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL	N/A
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST	ČSN EN 10204 / 3.2
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Gas Hydraulic Valve (GHV) with Local and Remote Control and Monitoring Functionality and Line Break Control (LBC)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: LBC - Line Break Control shall be mechanical type. Pre-set pressure drop shall be 5 bar/min and shall be adjustable.				
109	Note 7: LVS Jirkov is alternative location to LVS Vrskman. Only one LVS of those two shall be constructed, either Jirkov or Vrskman.				
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BALL VALVE - DN 1400

GENERAL INFORMATION					
1					
2	LOCATION	LVS HRUSOVANY - TU51S	5	QUANTITY	1
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.2	7	P&ID-No.	C4G-HPPL-ILF-TU51S-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	UNDERGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	GAS HYDRAULIC WITH LBC (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	60 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
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DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
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91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
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BALL VALVE - DN 1400

GENERAL INFORMATION					
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2	LOCATION	LVS SYROVICE - TU52S	5	QUANTITY	1
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.2	7	P&ID-No.	C4G-HPPL-ILF-TU52S-STR-DIA-110
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ACTUATOR AND ACCESSORIES					
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52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
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54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
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75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
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91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Gas Hydraulic Valve (GHV) with Local and Remote Control and Monitoring Functionality and Line Break Control (LBC)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: LBC - Line Break Control shall be mechanical type. Pre-set pressure drop shall be 5 bar/min and shall be adjustable.				
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BALL VALVE - DN 1400

GENERAL INFORMATION				
1				
2	LOCATION	LVS MALMERICE - TU53S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	MOV-1.3, MOV-1.4	7	P&ID-No.
8				
OPERATION AND DESIGN DATA				
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)
15	INSTALLATION	ABOVEGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)
23				
VALVE DATA				
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN
33	VENT	YES	45	FIRE SAFE DESIGN
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA
35	INSULATION	NO	47	
48				
ACTUATOR AND ACCESSORIES				
49	ACTUATOR TYPE	ELECTRO MOTOR (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION
55	POWER SUPPLY	400V / 50 Hz / 3 Ph	67	VALVE CL TO ACTUATOR FLANGE
56	IP-CODE	IP 65 (IEC 60529)	68	VALVE CL TO GROUND LEVEL
57	INSULATING CLASS	I	69	BY-PASS AND AIR-BLEED VALVE
58	HAZARDOUS AREA	ZONE 1	70	OIL AND GAS FILTERS
59	EXPLOSION PROTECTION	II 2G IIB T3	71	CONTROL UNIT
60	MINIMUM SUPPLY PRESSURE	N/A	72	ACTUATOR LOCKING
73				
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES				
74	FITTING LENGTH	*	78	WEIGHT (VALVE)
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE
77			81	CABLE CONNECTION SIZE
82				
MATERIALS, TESTING AND DOCUMENTATION				
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST
87	MATERIAL STEM	*	96	FIRE SAFE TEST
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY
101				
NOTES				
102	* To be filled/confirmed by Supplier			
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814			
104	Note 2: Motor Operated Valve (MOV) with Local Control and Monitoring Functionality (Valve shall not be connected to station control system)			
105	Note 3: CL - Center Line			
106	Note 4: N/A - Not Applicable			
107	Note 5: Control and Signaling Voltage 24 VDC			
108	Note 6: The possibility to locate the actuator control head/unit remotely from actuator shall be provided			
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BALL VALVE - DN 1400

GENERAL INFORMATION					
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2	LOCATION	LVS MLADOTICE - TU40S	5	QUANTITY	1
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.2	7	P&ID-No.	C4G-HPPL-ILF-TU40S-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	UNDERGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	GAS HYDRAULIC WITH LBC (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	60 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION	ACC. TO CSN EN 60079-10
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL	N/A
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST	ČSN EN 10204 / 3.2
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Gas Hydraulic Valve (GHV) with Local and Remote Control and Monitoring Functionality and Line Break Control (LBC)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: LBC - Line Break Control shall be mechanical type. Pre-set pressure drop shall be 5 bar/min and shall be adjustable.				
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BALL VALVE - DN 1400

GENERAL INFORMATION					
1					
2	LOCATION	LVS HUBENOV - TU41S	5	QUANTITY	1
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.2	7	P&ID-No.	C4G-HPPL-ILF-TU41S-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	UNDERGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	GAS HYDRAULIC WITH LBC (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	60 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION	ACC. TO CSN EN 60079-10
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL	N/A
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST	ČSN EN 10204 / 3.2
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Gas Hydraulic Valve (GHV) with Local and Remote Control and Monitoring Functionality and Line Break Control (LBC)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: LBC - Line Break Control shall be mechanical type. Pre-set pressure drop shall be 5 bar/min and shall be adjustable.				
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BALL VALVE - DN 1400

GENERAL INFORMATION					
1					
2	LOCATION	LVS SVINOMAZY - TU42S	5	QUANTITY	1
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.2	7	P&ID-No.	C4G-HPPL-ILF-TU42S-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	UNDERGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	GAS HYDRAULIC WITH LBC (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	60 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION	ACC. TO CSN EN 60079-10
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL	N/A
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST	ČSN EN 10204 / 3.2
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Gas Hydraulic Valve (GHV) with Local and Remote Control and Monitoring Functionality and Line Break Control (LBC)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: LBC - Line Break Control shall be mechanical type. Pre-set pressure drop shall be 5 bar/min and shall be adjustable.				
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BALL VALVE - DN 1400

GENERAL INFORMATION					
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2	LOCATION	LVS BOR - TU48S	5	QUANTITY	1
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	GHV-1.2	7	P&ID-No.	C4G-HPPL-ILF-TU48S-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	UNDERGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	GAS HYDRAULIC WITH LBC (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	60 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE 2460 mm* VALVE CL TO GROUND LEVEL 1710 mm
55	POWER SUPPLY	N/A	67		
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	YES
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	N/A
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION	ACC. TO CSN EN 60079-10
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL	N/A
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST	ČSN EN 10204 / 3.2
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Gas Hydraulic Valve (GHV) with Local and Remote Control and Monitoring Functionality and Line Break Control (LBC)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: LBC - Line Break Control shall be mechanical type. Pre-set pressure drop shall be 5 bar/min and shall be adjustable.				
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BALL VALVE - DN 1400

GENERAL INFORMATION					
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2	LOCATION	RU PRIMDA - RU005	5	QUANTITY	1
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION	C4G-HPPL-ILF-GENER-STR-SPC-814
4	TAG No.	MOV-1.7	7	P&ID-No.	C4G-HPPL-ILF-RU005-STR-DIA-110
OPERATION AND DESIGN DATA					
9	AMBIENT CONDITIONS	C4G-HPPL-ILF-GENER-GEN-SPC-901	16	MAX. OPERATING PRESSURE	85 barg
10	MEDIUM	NATURAL GAS	17	OPERATING TEMPERATURE	+5 to +25 °C
11	GAS COMPOSITION	C4G-HPPL-ILF-GENER-GEN-DAT-820	18	DESIGN PRESSURE	85 barg
12	PIPING CLASS	DP85 - CAT. B	19	DESIGN TEMPERATURE	-20 to +50 °C
13	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	20	TEST PRESSURE	127.5 barg
14	FLANGE STANDARD / RATING	N/A	21	SAFETY FACTOR (TO YIELD POINT)	2.15
15	INSTALLATION	ABOVEGROUND	22	SAFETY FACTOR ON WELD ENDS (TO YIELD POINT)	1.68
VALVE DATA					
24	VALVE BODY / BALL DESIGN	FULLY WELDED BODY - FULL BORE	36	SUPPORT LEGS	YES
25	DESIGN STANDARD	CSN EN 13942 / API 6D / ISO 14313	37	LIFTING LUGS	YES
26	NOMINAL PIPE SIZE / OD / THICKNESS	DN 1400 / 1422 mm / 21.5 mm	38	FLOW DIRECTION	BIDIRECTIONAL
27	PIPELINE CONNECTION TYPE	WELD / WELD	39	LEAK RATE	ACC. TO EN 12266-1, -2; RATE A
28	MAIN SEALS	METAL	40	MAX. VALVE LIFT	*
29	SECONDARY SEALS	SOFT	41	STEM DIAMETER / TYPE	* / ANTI-BLOW-OUT
30	SEATS RINGS	DOUBLE PISTON EFFECT	42	LOCK POSITION	NO
31	CAVITY PRESSURE RELIEF VALVE	N/A	43	ADJUSTABLE LIMIT STOP	*
32	DOUBLE BLOCK & BLEED	YES	44	ANTI STATIC DESIGN	YES
33	VENT	YES	45	FIRE SAFE DESIGN	YES
34	DRAIN	YES	46	SEALANT LINE INJECTION MEDIA	4 INDPEDENT GREASE FITTINGS
35	INSULATION	NO	47		
ACTUATOR AND ACCESSORIES					
49	ACTUATOR TYPE	ELECTRO MOTOR (Note 2) (Note 6)	61	STROKING TIME TO OPEN (Min./Max.)	40 s/180 s
50	MANUFACTURER/ MODEL	*	62	STROKING TIME TO CLOSE (Min./Max.)	60 s /180 s
51	GEAR BOX WITH HANDWHEEL	N/A	63	LIMIT SWITCH	YES
52	DESIGN TORQUE FOR ACTUATOR	*	64	POSITIONER MANUFACT / MODEL	*
53	ACTUATOR ATTACHMENT	ACC. TO EN ISO 5211	65	STEM	*
54	FAIL SAFE POSITION	N/A	66	STEM EXTENSION FOR UNDERGROUND INSTALLATION	VALVE CL TO ACTUATOR FLANGE VALVE CL TO GROUND LEVEL
55	POWER SUPPLY	400V / 50 Hz / 3 Ph	67		N/A N/A
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE	N/A
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS	N/A
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT	C4G-HPPL-ILF-GENER-STR-SPC-814
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING	SELF LOCKING
60	MINIMUM SUPPLY PRESSURE	N/A	72	MECHANICAL POSITION INDICATOR	YES - OPEN/CLOSE
DIMENSIONS, WEIGHT, MECHANICAL AND ELECTRICAL INTERFACES					
74	FITTING LENGTH	*	78	WEIGHT (VALVE)	*
75	FITTING HEIGHT	*	79	WEIGHT (VALVE + ACTUATOR)	*
76	WALL THICKNESS	*	80	CABLE CONNECTION TYPE	Exd Cable Gland
77			81	CABLE CONNECTION SIZE	*
MATERIALS, TESTING AND DOCUMENTATION					
83	MATERIAL OF PIPE END	L485ME	92	STANDARD TEST	ACC TO CSN EN 14141 / API 6D
84	VALVE MATERIAL	ACC. TO ČSN EN 1594/API 6D	93	LEAKAGE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
85	BALL MATERIAL	C4G-HPPL-ILF-GENER-STR-SPC-814	94	PRESSURE TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
86	PUP PIECES MATERIAL	*	95	TIGHTNESS TEST	C4G-HPPL-ILF-GENER-STR-SPC-814 (TABLE III)
87	MATERIAL STEM	*	96	FIRE SAFE TEST	ACC. TO API 607 / ISO 10497
88	MATERIAL BOLTS / NUTS	ACC. TO ČSN EN ISO 898	97	ATEX CERTIFICATION	ACC. TO CSN EN 60079-10
89	MATERIAL SEAT / SEAL	A350 LF2 / HNBR (Therban) *	98	SAFETY INTEGRITY LEVEL	N/A
90	ANTI - CORROSION PROTECTION	C4G-HPPL-ILF-GENER-STR-SPC-814	99	FINAL ACCEPTANCE TEST	ČSN EN 10204 / 3.2
91	DOCUMENTATION	C4G-HPPL-ILF-GENER-STR-SPC-814	100	CE-CONFORMITY	ACC. TO PED 2014/68/EU
NOTES					
102	* To be filled/confirmed by Supplier				
103	Note 1: This data sheet shall be read with the Specification C4G-HPPL-ILF-GENER-STR-SPC-814				
104	Note 2: Motor Operated Valve (MOV) with Local Control and Monitoring Functionality (Valve shall not be connected to station control system)				
105	Note 3: CL - Center Line				
106	Note 4: N/A - Not Applicable				
107	Note 5: Control and Signaling Voltage 24 VDC				
108	Note 6: The possibility to locate the actuator control head/unit remotely from actuator shall be provided				
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