



**NET4GAS, s.r.o**

# **HP PIPELINE DN 1400, NODE KATEŘINSKÝ POTOK – NODE PŘIMDA**

## **Line Valves DN 1400 - Datasheet**

**30.07.2018**

**DVZ**

### **ILF CONSULTING ENGINEERS**

Werner-Eckert-Strasse 7, 81829 München, DE  
Jirsíkova 5, 186 00 Praha 8, CZ

Phone: +49 89 25 55 94-0  
+420 255 091 420

E-mail: [info.muc@ilf.com](mailto:info.muc@ilf.com)  
[info.prg@ilf.com](mailto:info.prg@ilf.com)

Website: [www.ilf.com](http://www.ilf.com)



## REVISION HISTORY

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
Rev.	Date	Issue, Purpose	Prepared	Checked	Approved

## TABLE OF CONTENTS

PAGE	TYPE OF VALVE	SIZE
<b>LVS JIRKOV - TU33S (Note 1)</b>		
4	Ball Valve – Gas Hydraulic (GHV-1.2)	DN 1400
<b>LVS VRSKMAN - KS07B (Note 1)</b>		
5	Ball Valve – Gas Hydraulic (GHV-1.1)	DN 1400
<b>LVS HRUSOVANY - TU51S</b>		
6	Ball Valve – Gas Hydraulic (GHV-1. 2)	DN 1400
<b>LVS SYROVICE - TU52S</b>		
7	Ball Valve – Gas Hydraulic (GHV-1. 2)	DN 1400
<b>LVS MALMERICE - TU53S</b>		
8	Ball Valve – Electro Motor (MOV -1.3, MOV -1.4)	DN 1400
<b>LVS MLADOTICE - TU40S</b>		
9	Ball Valve – Gas Hydraulic (GHV-1.2)	DN 1400
<b>LVS HUBENOV - TU41S</b>		
10	Ball Valve – Gas Hydraulic (GHV-1.2)	DN 1400
<b>LVS SVINOMAZY - TU42S</b>		
11	Ball Valve – Gas Hydraulic (GHV-1.2)	DN 1400
<b>LVS BOR - TU48S</b>		
12	Ball Valve – Gas Hydraulic (GHV-1.2)	DN 1400
<b>RU PRIMDA - RU005</b>		
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				
1	GENERAL INFORMATION			
2	LOCATION	LVS JIRKOV - TU33S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.2	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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 ajustable.			
109	Note 7: LVS Jirkov is alternative location to LVS Vrskman. Only one LVS of those two shall be constructed, either Jirkov or Vrskman.			
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	LVS VRSKMAN - KS07B	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.1	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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 ajustable.			
109	Note 7: LVS Jirkov is alternative location to LVS Vrskman. Only one LVS of those two shall be constructed, either Jirkov or Vrskman.			
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	LVS HRUSOVANY - TU51S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.2	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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 ajustable.			
109				
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	LVS SYROVICE - TU52S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.2	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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				
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
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	BY-PASS AND AIR-BLEED VALVE
56	IP-CODE	IP 65 (IEC 60529)	68	OIL AND GAS FILTERS
57	INSULATING CLASS	I	69	CONTROL UNIT
58	HAZARDOUS AREA	ZONE 1	70	ACTUATOR LOCKING
59	EXPLOSION PROTECTION	II 2G IIB T3	71	MECHANICAL POSITION INDICATOR
60	MINIMUM SUPPLY PRESSURE	N/A	72	
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			
109				
110				
111				
112				
113				
114				
115				
116				
117				



BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	LVS MLADOTICE - TU40S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.2	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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 ajustable.			
109				
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	LVS HUBENOV - TU41S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.2	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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				
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	LVS SVINOMAZY - TU42S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.2	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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				
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	LVS BOR - TU48S	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	GHV-1.2	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	UNDERGROUND	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	GAS HYDRAULIC WITH LBC (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	N/A	67	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	38.0 barg	72	MECHANICAL POSITION INDICATOR
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: 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				
110				
111				
112				
113				
114				
115				
116				
117				

BALL VALVE - DN 1400				
1	GENERAL INFORMATION			
2	LOCATION	RU PRIMDA - RU005	5	QUANTITY
3	EQUIPMENT	BALL VALVE	6	TECHNICAL SPECIFICATION
4	TAG No.	MOV-1.7	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	
56	IP-CODE	IP 65 (IEC 60529)	68	BY-PASS AND AIR-BLEED VALVE
57	INSULATING CLASS	I	69	OIL AND GAS FILTERS
58	HAZARDOUS AREA	ZONE 1	70	CONTROL UNIT
59	EXPLOSION PROTECTION	II 2G IIB T3	71	ACTUATOR LOCKING
60	MINIMUM SUPPLY PRESSURE	N/A	72	MECHANICAL POSITION INDICATOR
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			
109				
110				
111				
112				
113				
114				
115				
116				
117				