

For mechanical fixing of sensors with thread.

Dinel

For type: CLS-23; DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; TFS-35; ULM-53-01; ULS-53-01; CNP-18

Types of flanges								
Туре	For sensors	А	B (mm)	C (mm)	D (mm)	E (mm)	Material	Note
ON-18x1,5	CLS-23; CNP-18	M18x1,5	29,5	25	13	4	W. Nr. 1.0038 (AISI 1020)	
NN-18x1,5	CLS-23; CNP-18	M18x1,5	29,5	25	13	4	W. Nr. 1.4301 (AISI 304)	
ON-20x1,5	CLS-23	M20x1,5	29,5	25	13	4	W. Nr. 1.0038 (AISI 1020)	
NN-20x1,5	CLS-23	M20x1,5	29,5	25	13	4	W. Nr. 1.4301 (AISI 304)	
ON-27x2	DLM–35; DLS–27; DLS–35; HLM–35; RFLS–35	M27x2	43	35	15	5	W. Nr. 1.0038 (AISI 1020)	
NN-27x2	DLM–35; DLS–27; DLS–35; HLM–35; RFLS–35	M27x2	43	35	15	5	W. Nr. 1.4301 (AISI 304)	
ON-G3/8	CLS-23; CNP-18	G3/8"	29,5	25	13	4	W. Nr. 1.0038 (AISI 1020)	
ON-G3/8-Z	CLS-23; CNP-18	G3/8"	29,5	25	13	4	W. Nr. 1.0038 (AISI 1020)	With lock*
NN-G3/8	CLS-23; CNP-18	G3/8"	29,5	25	13	4	W. Nr. 1.4301 (AISI 304)	
NN-G3/8-A	CLS-23; CNP-18	G3/8"	29,5	25	13	4	W. Nr. 1.4571 (AISI 316 Ti)	
NN-G3/8-Z	CLS-23; CNP-18	G3/8"	29,5	25	13	4	W. Nr. 1.4301 (AISI 304)	With lock*
ON-G1/2	CLS-23; RFLS-35; TFS-35; CNP-18	G1/2"	29,5	25	13	4	W. Nr. 1.0038 (AISI 1020)	
NN-G1/2	CLS-23; RFLS-35; TFS-35; CNP-18	G1/2"	29,5	25	13	4	W. Nr. 1.4301 (AISI 304)	
ON-G3/4	DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; ULM-53-01; ULS-53-01	G3/4"	43	35	15	5	W. Nr. 1.0038 (AISI 1020)	
ON-G3/4-Z	DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; ULM-53-01; ULS-53-01	G3/4"	43	35	15	5	W. Nr. 1.0038 (AISI 1020)	With lock*
NN-G3/4	DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; ULM-53-01; ULS-53-01	G3/4"	43	35	15	5	W. Nr. 1.4301 (AISI 304)	
NN-G3/4-A	DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; ULM-53-01; ULS-53-01	G3/4"	43	35	15	5	W. Nr. 1.4571 (AISI 316 Ti)	
NN-G3/4-Z	DLM–35; DLS–27; DLS–35; HLM–35; RFLS–35; ULM–53–01; ULS–53–01	G3/4"	43	35	15	5	W. Nr. 1.4301 (AISI 304)	With lock*

* Including aluminium seal, suitable for pressure applications





Normal type

Lock type

Weld flange

Gasket

Weld flanges - stainless steel NN, carbon steel ON

For mechanical fixing of sensors with thread.

For type: CLM-36; CLM-40; CLS-53; DLM-35; DLS-35; GRLM-70; ULM-53; ULS-53; ULM-70



TYPES OF FLANGES								
Туре	For sensors	А	B (mm)	C (mm)	D (mm)	E (mm)	Material	Note
ON-36x2	CLM-36	M36x2	49,5	46	20	3	W. Nr. 1.0038 (AISI 1020)	
ON-36x2-Z	CLM-36	M36x2	49,5	46	20	3	W. Nr. 1.0038 (AISI 1020)	With lock*
NN-36x2	CLM-36	M36x2	49,5	46	20	3	W. Nr. 1.4301 (AISI 304)	
NN-36x2-Z	CLM-36	M36x2	49,5	46	20	3	W. Nr. 1.4301 (AISI 304)	With lock*
ON-G1	CLM-36; CLM-40; DLM-35; DLS-35; GRLM-70; ULM-53-02; ULS-53-02; ULM-70-02	G1"	49,5	46	18	3	W. Nr. 1.0038 (AISI 1020)	
NN-G1	CLM-36; DLM-35; DLS-35; GRLM-70; ULM-53-02; ULS-53-02; ULM-70-02; CLM-40	G1"	49,5	46	18	3	W. Nr. 1.4301 (AISI 304)	
NN-G1-A	CLM-36; DLM-35; DLS-35; GRLM-70; ULM-53-02; ULS-53-02; ULM-70-02; CLM-40	G1"	49,5	46	18	3	W. Nr. 1.4571 (AISI 316 Ti)	
ON-G1,5	CLS-53; ULM-53-06; ULS-53-06; ULM-70-06	G1½"	59,5	56	18	3	W. Nr. 1.0038 (AISI 1020)	
NN-G1,5	CLS–53; ULM–53–06; ULS–53–06; ULM–70–06	G1½"	59,5	56	18	3	W. Nr. 1.4301 (AISI 304)	

* Including aluminium seal, suitable for pressure applications,



Normal type





FIXING NUTS - STAINLESS STEEL UM, PLASTIC PUM AND FLANGES

For mechanical fixing of sensors in the cases when the use of weld flanges is not possible.

Material: UM - W. Nr. 1.4301 (AISI 304); PUM - plastic PP

For type: CLM-36; CLM-40; CLS-23; CLS-53; DLM-35; DLS-27; DLS-35; GRLM-70; HLM-35; RFLS-35; TFS-35; ULM-53; ULS-53; ULM-70; CNP-18

Types of fixing nuts and flanges						
Туре	For sensors	А	B (mm)	C (mm)	D (mm)	
UM-18x1,5	CLS-23; CNP-18	M18x1,5	23	8	24	
UM-27x2	DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35	M27x2	34	10	36	
UM-36x2	CLM-36	M36x2	44	14	46	
UM-G3/8	CLS-23; CNP-18	G3/8"	23	8	24	
UM-G3/4	DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; ULM-53-01; ULS-53-01	G3/4"	34	10	36	
UM–G1	CLM-36; CLM-40; DLM-35; DLS-35; GRLM-70; ULM-53-02; ULS-53-02; ULM-70-02	G1"	45,4	12	46	
UM-G1,5	CLM-36N-40; CLS-53; ULM- 53- 06; ULS-53-06; ULM-70-06	G1½"	54	14	55	
PUM-G3/4	DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; ULM-53-01; ULS-53-01	G3/4"	32	8	32	
PUM-G1	CLM-36; CLM-40; DLM-35; DLS-35; GRLM-70; ULM-53-02; ULS-53-02; ULM-70-02	G1"	45,4	12	46	
PUM-G1,5	CLM-36N-40; CLS-53; ULM- 53- 06; ULS-53-06; ULM-70-06	G1½"	54,8	14	55	
PUM-G2,25	ULM-53-10; ULS-53-10; ULM-70-10	G2¼"	72	14	75	
PR-G2,25	ULM-53-10; ULS-53-10; ULM-70-10	G2¼"	130	14	160	







SOCKET GAN-DADE 7A AND GAN-DAEE 7A

Non-disconnectable connectors with a permanently connected PVC cable of length 5m and a locking screw.

For type: CLM-36; CLS-53; ULM-53; ULS-53

TECHNICAL SPECIFICATIONS				
Rated voltage		250 V AC/DC		
Rated current		10 A		
Protection class		IP67		
Contact resistance		max. 10 mΩ		
Cable encoification	GAN-DADE 7A	LiYY 3x0,75 mm ²		
Cable specification	GAN-DAEE 7A	LiYY 4x0,75 mm ²		
Cable material		PVC (Polyvinyl chloride)		
Contact material		Cu / Sn		
Temperature range		-25 +80°C		

Legend:

-		
BN	_	Brown
BK	_	Black
BU	_	Blue
GNYE	_	Green/Yellow



GAN-DAEE 7A (3+PE)





GAN–DADE 7A (2+PE)

Socket ELWIKA KV 4312

Non-disconnectable connector with a permanently connected PVC cable of length 2m or 5m and a metal cap nut.

For type: CLS-23; CPS-24; DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; ULM-53; ULS-53

TECHNICAL SPECIFICATIONS		
Rated voltage	250 V AC/DC	
Rated current	4 A	
Protection class	IP68	
Cable specification	LiYY 3x0,34 mm ²	
Cable material	PVC (Polyvinyl chloride)	
Contact material	Cu Zn / Au	
Screw locking nut	M12	
Temperature range	-25 +90°C	





Socket ELWIKA KV 4412

Non-disconnectable connector with a permanently connected PVC cable of length 2 m and a metal cap nut.

For type: TFS-35

TECHNICAL SPECIFICATIONS			
Rated voltage	250 V AC/DC		
Rated current	4 A		
Protection class	IP68		
Cable specification	LiYY 4x0,34 mm ²		
Cable material	PVC (Polyvinyl chloride)		
Contact material	Cu Zn / Au		
Screw locking nut	M12		
Temperature range	-25 +90°C		





CONNECTOR ELKA KV 3308

Non-disconnectable connector with a permanently connected PVC cable of length 2 m and a metal cap nut.

For type: GPLS-25

TECHNICAL SPECIFICATIONS		
Rated voltage	60 V AC/DC	
Rated current	3 A	
Protection class	IP68	
Cable specification	LiYY 3x0,25 mm ²	
Cable material	PVC (Polyvinyl chloride)	
Contact material	Cu Sn / Au	
Screw locking nut	M8	
Temperature range	-25 +90°C	





Legend: BN – Brown BK – Black BU – Blue

SOCKET ELKA 4012 AND ELWIKA 4012

Straight and angle cable socket, disassembled, internal screw terminals, plastic coupling nut.

For type: CLS-23; CPS-24; DLM-35; DLS-27; DLS-35; HLM-35; RFLS-35; TFS-35; ULM-53; ULS-53

TECHNICAL SPECIFICATIONS		
Rated voltage	250 V AC/DC	
Rated current	4 A	
Protection class	IP67	
Suitable cables	Diameter 4 – 6 mm, Max 0.75 mm ²	
Coupling nut	M12	
Contact material	Cu Zn / Sn	
Temperature range	-25 +90°C	







CABLE SOCKET CA 3 LD AND PLUG CA 3 LS, PANEL SOCKET CA 3 GD

For an easy and reliable connection of longer power cables to the sensors. Coupler socket CA 3 GD is intended for installation into a panel or a switchboard cabinet. Internal screw terminals.

TECHNICAL SPECIFICATIONS		
Rated voltage	400 V AC / 250 V DC	
Rated current	AC 16 A / DC 10 A	
Protection class	IP67	
Contact resistance	3 mΩ	
Conductor size	max. 2,5 mm ²	
Cable gland	M22	
Contact material	Ag	
Temperature range	-40 +90°C	







RELAYS RY 2100xx, DIN RELAY SOCKET RY 78626

For galvanic separation of actuators or for switching higher current loads on limit sensors. Available with relay socket RY 78626 for DIN rail mounting 35 mm. Diagrams for relay connection to the individual types of sensors are provided on respective datasheets or in user manuals.

For type: CLS-23; CPS-24; DLS-27; DLS-35; FLD-48; GPLS-25; RFLS-35; TFS-35; ULM-53; ULS-53

TECHNICAL SPECIFICATIONS RELAYS			
Coil voltage	RY210024 RY210012	24 V DC 12 V DC	
Coil current	RY210024 RY210012	10 mA 19 mA	
Contact material		AgCdO	
Rated current		8 A (250 V AC)	
Maximum breaking capacity AC		2000 VA	
Rated frequency of	operation with load	Max. 360/hour	
Mechanical endurat	nce	3 x 10 ⁶ cycles	
Dielectric strength coil-contact circuit		5 kV	
Temperature range		-40 +70°C	

TECHNICAL SPECIFICATIONS RELAY SOCKET		
Dielectric strength coil-contact circuit	4 kV	
Protection class	IP20	
Temperature range	-20 +80°C	

RELAYS ST3P3LB2, RELAY SOCKET 1P/12VDC

Relay ST3P3LB2 is intended for installation together with the sensor ULS-53Xi. Where the sensor is located in a zone with a explosive atmosphere. IRU-420-U together with the relay ST3P3LB2 is placed in the non-explosive area.

For type: IRU-420; ULS-53Xi

TECHNICAL SPECIFICATIONS						
Working environment (EN 60079-10, EN 60079-14)	non-explosive area					
Number of contacts	1 switching					
Performance contacts	simple contact					
Rated current	6 A					
Rated voltage / max. switching voltage	240 VAC / 400 VAC					
Maximum breaking capacity AC	1500 VA					
Contact material	AgSnO2					
Rated coil voltage	12 VDC					
Working range / class pickup	2 / b					
Indication LED	yellow					
Ambient temperature assemblies	-20+55 °C					
Protection class	IP20					
Connection terminals	screw					
Wire cross section: single wire, fine wire, with bootlace crimp	0,142,5 mm ²					











HORN ADAPTER ST

For increases the radiation directivity of acoustic waves, improves reception of weak echoes (unstable level surfaces, solid materials, etc.), and reduces the risk of false reflections.

For type: ULM-53; ULS-53; ULM-70



Types of horn adapter								
Туре	For level meters	Α	B (mm)	C (mm)	D (mm)	Material		
ST-G3/4	ULM-53-01; ULS-53-01	G3/4"	36	100	45	PP (Polypropylene)		
ST-G1	ULM-53-02; ULS-53-02; ULM-70-02	G1"	45	120	65	PP (Polypropylene)		
ST–G1,5	ULM-53-06; ULS-53-06; ULM-70-06	G1½"	56	160	100	PP (Polypropylene)		
ST-G2,25	ULM-53-10; ULS-53-10; ULM-70-10	G2¼"	75	180	120	PP (Polypropylene)		

PLATE HOLDER PD-24-1

For fixing of the sensors CPS-24

(Include fixative strips).



Material: W. Nr. 1.0036 Nickel plated



CABLE HANGER KD-60

For hydrostatic level meters HLM safety cable hanging.

Material: plastic

For type: HLM-16N; HLM-25N; HLM-25S; HLM-25C



DISTANCE CROWN DK-24

For protection of sensor CPS–24 self-activation.

Material: POM-C(Polyoxymethylen copolymer)











Accessories-dat-7.11	

AUXILIARY PLATE ELECTRODE PDE

The set of auxiliary plate electrode, plate bracket with weld flange and connecting steel cable allows installation of capacitive level sensors in plastic (electric non-conductive) tanks in a vertical position. At the top wall is by 4 screws mounted plate bracket with stainless steel welding flange and the capacitive sensor (with rod electrode) is screwed into it. Plate electrode (thickness 1 mm) is fixed on outer side of the tank by means of double self adhesive layer in a position of considered sensing point. Stainless steel cable connects the plate bracket with the plate electrode. For details see the instruction manuals of the appropriate sensors.



For type: CLS-23; DLS-27; DLS-35

Legend:

- 1 Welding flange for sensor
- 2 Plate bracket
- 3 Connecting steel cable
- 4 Mounting hole
- 5 Plate electrode



Types of auxiliary plate electrode PDE								
Туре	For sensors	Α	B (mm)	C (mm)	D (mm)	E (mm)	Material	Steel cable length (cm)
PDE-18	CLS-23	NN-18x1,5	80	80	180	120	W. Nr. 1.4301 (AISI 304)	50; 100; 150
PDE-27	DLS-27; DLS-35	NN-27x2	90	90	180	120	W. Nr. 1.4301 (AISI 304)	50; 100; 150

INFRARED REMOTE CONTROLLER RCW-1

It is used for setting the parameters of the programmable display unit without requiring the removal of the front cover.

For type: PDU-420-W

TECHNICAL SPECIFICATIONS					
Power supply voltage	6 V DC (4 pc alkaline batteries LR44)				
Operation range	max. 5m				
Operating / Storage temperature	0 +50°C / -10 +70°C				
Dimension (W x H x D)	38 x 65 x 15 mm				



DISPLAY UNIT DM-70

For configuration and local display of currently measured values on the ULM-70 type water level meter. Contains an OLED display and 3 control buttons for performing settings. Electrical power supply and data communications via a system connector by which they are internally connected with the respective water level meter.

For type: GRLM-70; ULM-70

TECHNICAL SPECIFICATIONS					
Supply voltage	1836 V DC				
Display type	Matrix OLED				
Display resolution	128 x 64 pixel				
Character height	9 mm (5 characters)				
Display colour	Yellow				
Button type	Low-lift, membrane				
Temperature range	-30 +70 °C				
Electrical connection	DIP 2x 5 pins				
Weight	46g				



Extension cable display length 1m.

For type: GRLM-70; ULM-70

CONVERTOR URC-485

For connection sensor with output RS 485 / Modbus (GRLM- 70, ULM- 70, ULM-53, EFM-115, FCU-400, MGU-800, PDU-4xx-P, PDU- 420- W) and PC with special software (Basic Scada level). Power supply: from USB interface (4,4 ... 5,25 VDC). Galvanic isolation (optoisolation) between an USB interface and RS-485 lines. Ambient temperature range: $0^{\circ}C \dots +50^{\circ}C$.

For type: GRLM-70; ULM-70; ULM-53; EFM-115; FCU- 400; MGU- 800; PDU-4xx-P; PDU-420-W

CONVERTOR UCC-01

For connection sensor with output CAN (CLM-40) and PC with special software (Basic Scada fuel). Power supply: from USB interface (4,4 ... 5,25 VDC). Ambient temperature range: -40° C ... +80°C.

For type: CLM-40 CAN

Нив НВ-485

For connection more level meters ULM with unit FCU. Cable glands for protective hose. Possibility of connection to 4 level meters of ULM series with output RS 485. Plastic box with IP 65.

NON-HERMETIC (VENTED) JUNCTION BOX NB-01

For termination of hydrostatic level meter cable with compensation capillary and its electrical connection with the supply cable. Includes membrane for input of atmospheric pressure with protection against moisture. Protection class IP65.

NB-01 – version without overvoltage protection NB-11 – version with overvoltage protection

Material: PBT (Polybutylen terephthalat)

For type: HLM-16N; HLM-25N; HLM-25S; HLM-25C; HLM-35











Additional frame for PDU display units

Increases the protection rating level of the front panel displays from IP40 to IP65.

Material: plastic

For type: PDU-420-P; PDU-421-P; PDU-440-P

MAGNETIC PEN MP-8

For parameters setting of limit level sensors. Length 50 mm, diameter 8 mm.

For type: CLS-23; CLS-53; DLM-35; DLS-35; GPLS-25; RFLS-35; TFS-35; ULM-53_-___-M-; ULS-53_-___-M-; HLM-35; CLM-40

DUST-TIGHT BUSHING PR-31

Part of the anchoring mechanism on CLM water level meters, is used for fastening and the passage of the electrode of the anchor rod through the outer wall of the tank. The external part is welded into the diagonal bottom wall of the tank (silo). It is appropriate to use the disassemblable dust proof grommet PR–31 when measuring fine **loose materials and powder materials**.

Material: W. Nr. 1.4301 (AISI 304) – Inner part W. Nr. 1.0038 (AISI 1020) – Outer part

For type: CLM-36_-31

ANCHOR WELDING CYLINDER KV–31

Part of the anchoring mechanism on CLM water level meters, is used for fastening and the passage of the anchor rod through the outer wall of the tank. The external part is welded into the diagonal bottom wall of the tank (silo). It is appropriate to use the KV-31 non-disassemblable anchoring roll when measuring **coarser loose materials** (granulates).

Material: W. Nr. 1.0038 (AISI 1020)

For type: CLM-36_-31











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Standard types of gaskets									
Туре	For sensors	Process connection	Outer dia / inner dia / thickness	Material					
TES-G3/8	CLS-23; CNP-18	G3/8"	24 / 16,5 / 2 mm	AFM 38					
TES-M18x1,5	CLS-23; CNP-18	M18x1,5	24 / 18 / 2 mm	AFM 38					
TES-M20x1,5	CLS-23	M20x1,5	27 / 20 / 2 mm	AFM 38					
TES-G1/2	CLS-23; CNP-18; RFLS-35; TFS-35	G1/2 "	27 / 21 / 2 mm	AFM 38					
TES-G3/4	DLS-35; DLM-35; HLM-35; RFLS-35; DLS-27	G3/4"	36 / 26 / 2 mm	AFM 38					
TES-M27x2	DLS-35; DLM-35; HLM-35; RFLS-35; DLS-27	M27x2	36 / 27 / 2 mm	AFM 38					
TES-M30x1,5	DLS-35; DLM-35; DLS-27	M30x1,5	40 / 30 / 2 mm	AFM 38					
TES-G1	CLM-36; GRLM-70; DLM-35; DLS-35; CLM-40	G1"	43 / 33 / 2 mm	AFM 38					
TES-M36x2	CLM-36	M36x2	46 / 36 / 2 mm	AFM 38					
TES-G1/2-1	TFS-35	G1/2"	27 / 21 / 1 mm	AFM 38					
TES-G3/4-34	DLS-3525; DLM-3525	G3/4"; M27x2	36 / 26,5 / 2 mm	AFM 34					

The gaskets are supplied with individual sensors.

Optional types of gaskets (with extra charge)								
Туре	For sensors	Process connection	Outer dia / inner dia / thickness	Material				
TES-M27x2-AL	DLS-35; DLM-35; HLM-35; RFLS-35; DLS-27	M27x2	36 / 27 / 2 mm	Aluminium				
TES-M36x2-AL	CLM-36	M36x2	46 / 36 / 2 mm	Aluminium				
TES-G3/8-AL	CLS-23; CNP-18	G3/8"	24 / 17 / 2 mm	Aluminium				
TES-CLM-40	CLM-40	příruba	65 / 40 / 3 mm	rubber NBR				
TES-CLM-40-SI	CLM-40	příruba	65 / 40 / 3 mm	silicone				

Gaskets from other materials (pressure and temperature more resistant gaskets, PTFE or aluminium gaskets) may be supplied upon request.

Pressure resistance of seals AFM 38

Madium	Temperature							
Medium	-50 °C	0 °C	50 °C	100 °C	150 °C	200 °C		
water, steam, water solutions	1,6 MPa (16 bar)	4,0 MPa (40 bar)	4,0 MPa (40 bar)	1,6 MPa (16 bar)	0,6 MPa (6 bar)	0 MPa (0 bar)		
oil, fats	2,5 MPa (25 bar)	4,0 MPa (40 bar)	4,0 MPa (40 bar)	2,5 MPa (25 bar)	1,6 MPa (16 bar)	0,6 MPa (6 bar)		
petroleum products, solvents	1,0 MPa (10 bar)	1,6 MPa (16 bar)	1,6 MPa (16 bar)	1,0 MPa (10 bar)	0,6 MPa (6 bar)	0 MPa (0 bar)		

PRESSURE RESISTANCE OF SEALS AFM 34

Madium	Temperature								
weatum	-50 °C	0 °C	50 °C	100 °C	150 °C	200 °C			
water, steam, water solutions	6,4 MPa (64 bar)	9,0 MPa (90 bar)	9,0 MPa (90 bar)	7,5 MPa (75 bar)	5,0 MPa (50 bar)	2,5 MPa (25 bar)			
oil, fats	6,4 MPa (64 bar)	10,0 MPa (100 bar)	10,0 MPa (100 bar)	9,0 MPa (90 bar)	7,0 MPa (70 bar)	3,5 MPa (35 bar)			
petroleum products, solvents	4,0 MPa (40 bar)	6,4 MPa (64 bar)	6,4 MPa (64 bar)	5,0 MPa (50 bar)	3,0 MPa (30 bar)	1,6 MPa (16 bar)			
acids, alkaline liquids, etc.	1,6 MPa (16 bar)	2,5 MPa (25 bar)	2,5 MPa (25 bar)	2,0 MPa (20 bar)	1,6 MPa (16 bar)	0 MPa (0 bar)			

