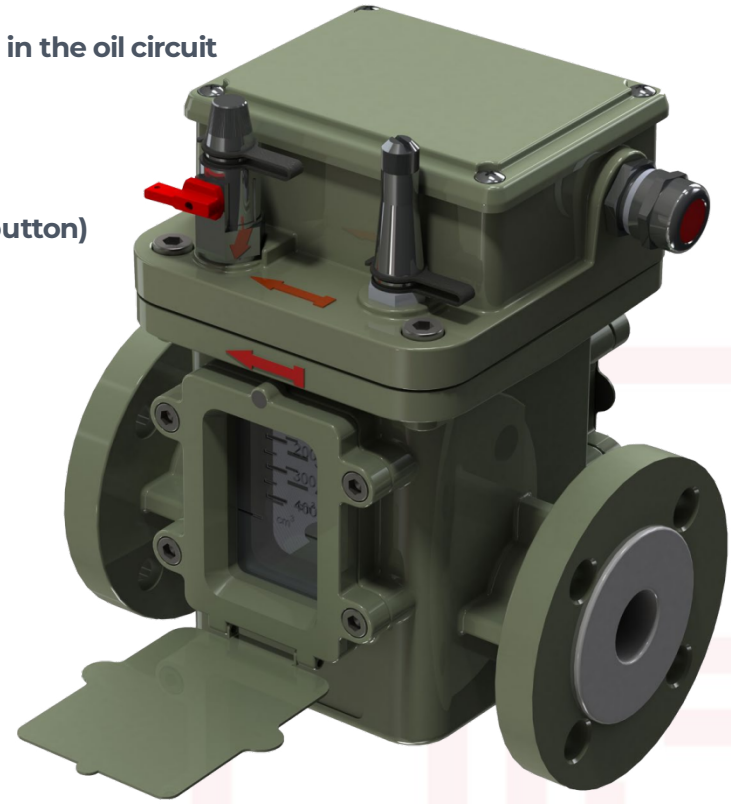
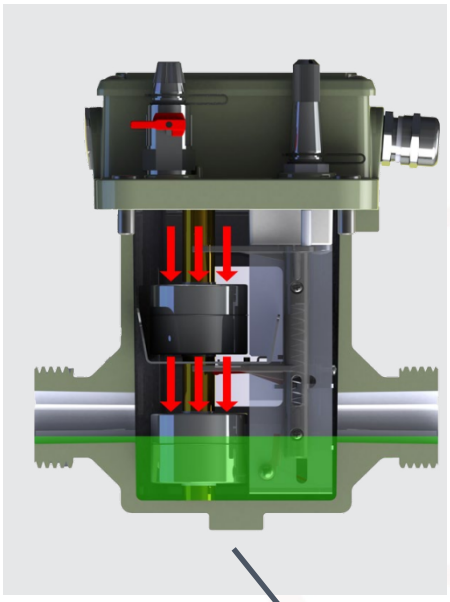
Buchholz Relay MBP

- Reed switches for detection of gas formation and dropping oil level
- Flap valve to protect in case of excessive high oil flow rate
- Separated oil and switching systems
- Replacing reed switches without intervention in the oil circuit
- UV-resistant C5-M coating (SOLIDLINE)
- 1/8“ sampling valve
- Mechanical testing of contact switches (test button)
- Pneumatic simulation (optional)
- Gas sampling device (optional)

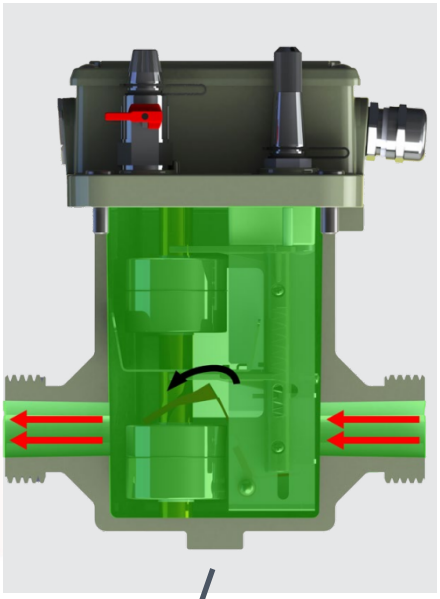


Functions



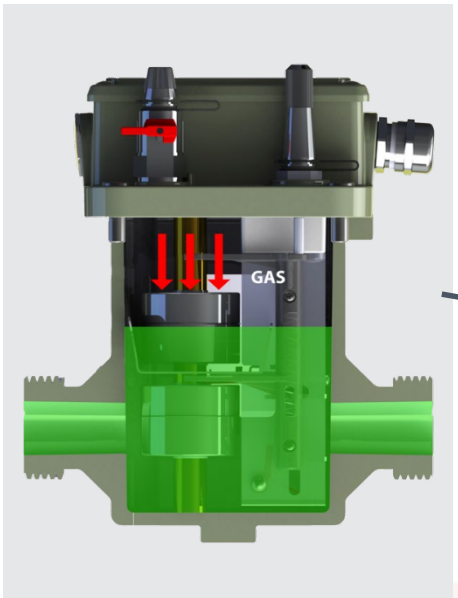
In case of gas accumulation

Reason: Gas arises in the insulating liquid



In case of dropping oil level

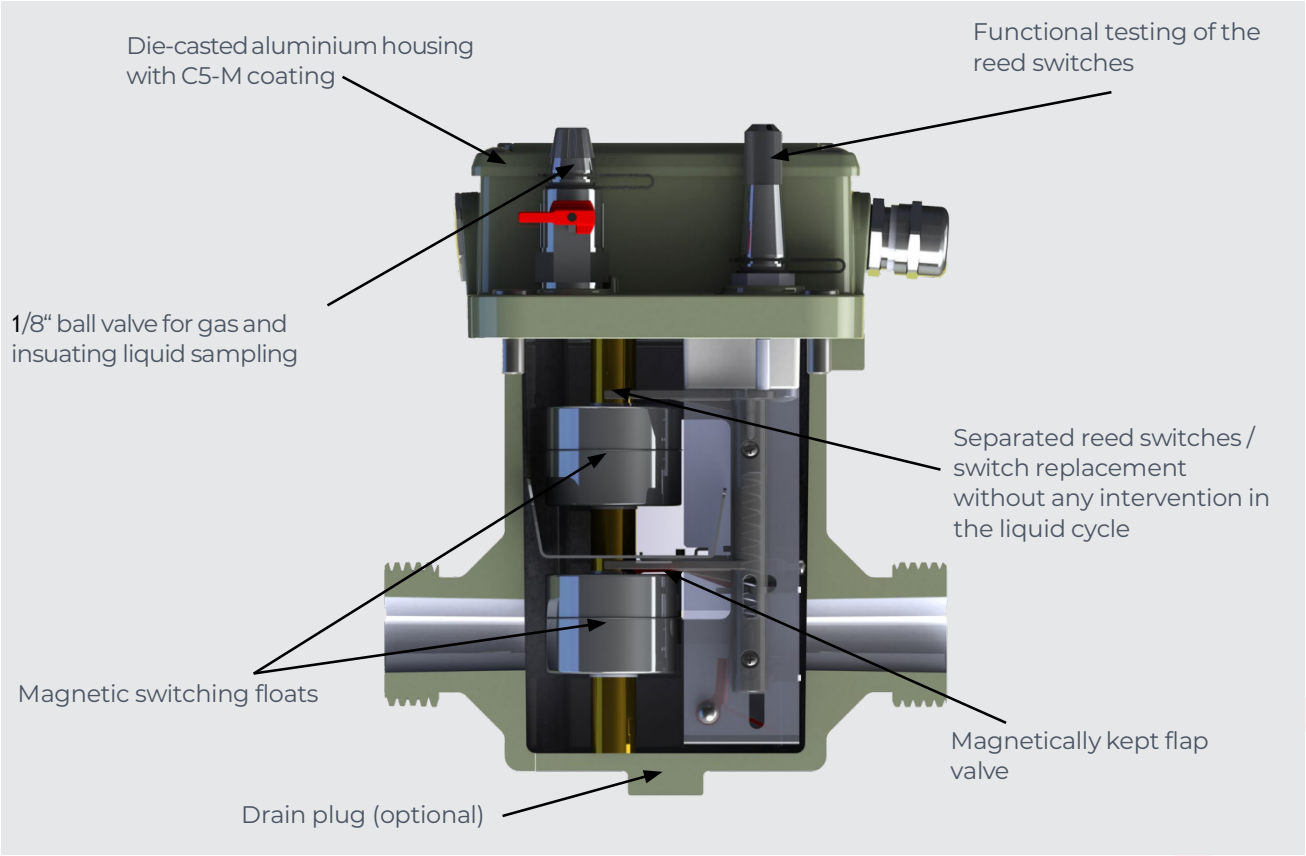
Reason: Leakage



In case of increased insulating liquid flow

Reason: Because of sudden occurring event a pressure wave moves in the direction of the expansion tank

Benefits at a Glance



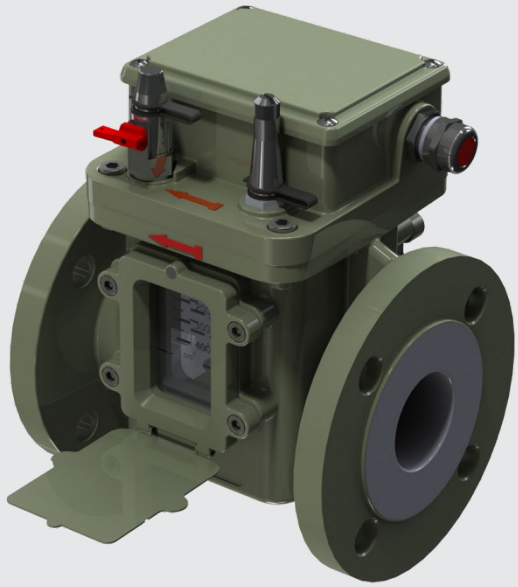
Connection Sheme

(when ordering please select)

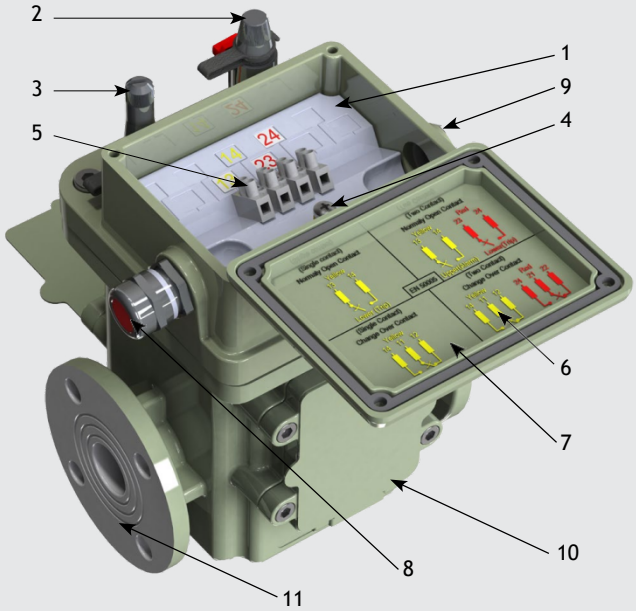
Yellow 13 14 Lower (Trip)	Single Contact Lower Float 1 Normally Open Contact	01	Yellow 11 12 Lower (Trip)	Red 21 22 Upper	2 Normally Open Contacts 1 Normally Contact Lower 1 Normally Contact Upper	03
Yellow 14 11 12 Lower (Trip)	Single Contact Lower Float 1 Changeover Contact (SPDT)	02	Yellow 14 11 12 Lower (Trip)	Red 24 21 22 Upper (Alarm)	2 Changeover Contacts (SPDT) 1 Changeover Contact Lower 1 Changeover Contact Upper	04

Description, Flange- and Threaded Connection

Buchholz Relay with flange connection



Buchholz Relay with threaded connection

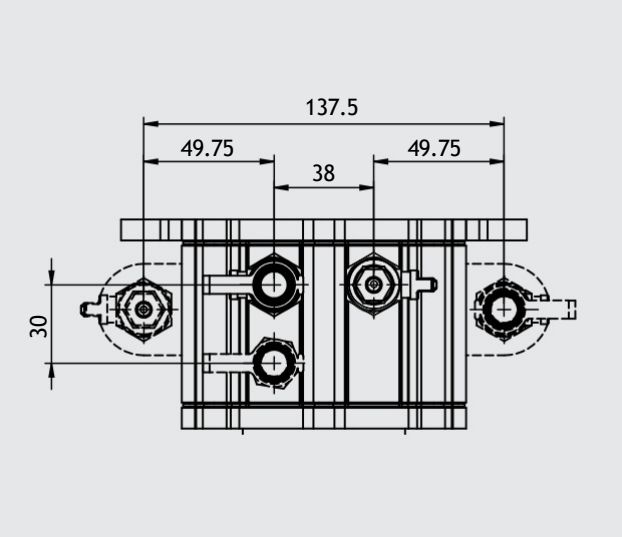


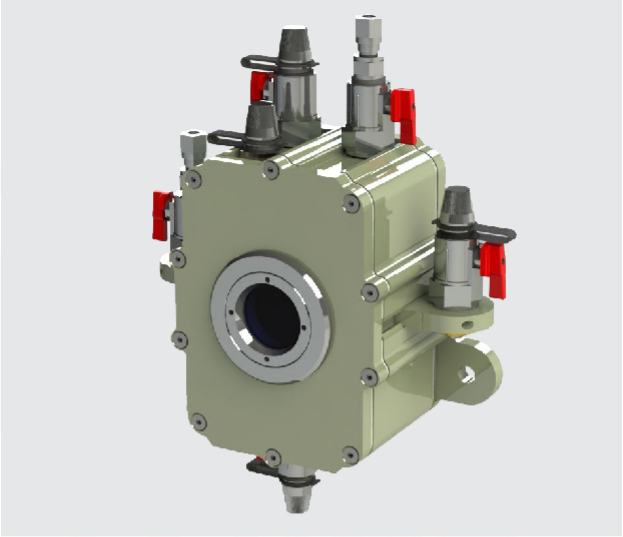
Item	Descriptions
1	Terminal
2	1/8" sampling valve
3	Test button
4	Earthing
5	Luster terminal
6	Connection
7	Terminal box cover
8	Cable
9	Blind plug
10	Protection
11	Flange or threaded Connection

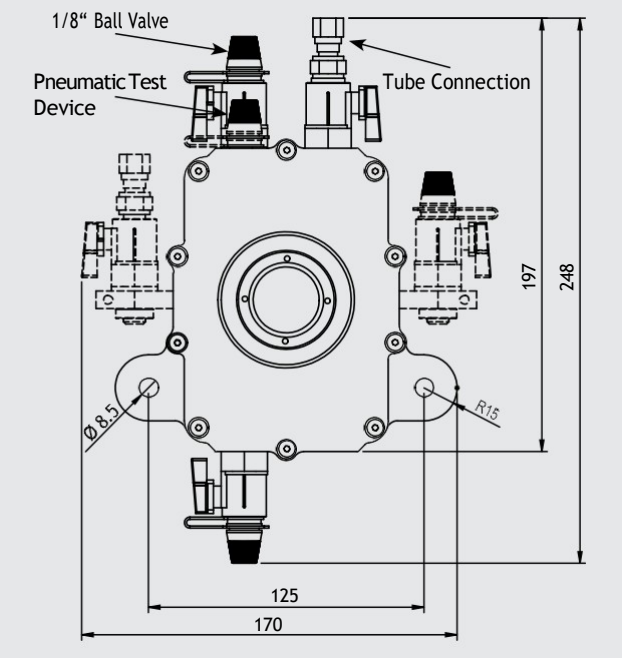
Parameters and Technical Data

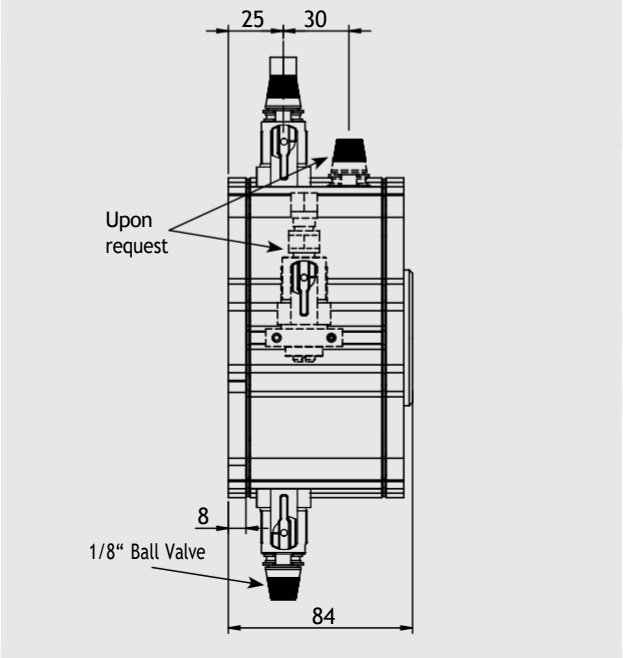
Parameters	Technical Data
	Materials
Housing	Aluminium / C5-M powder coating / coated RAL 7033 (standard, others upon
	Reed switch
Switching element	Power reed contact switches
number of switching contacts	Upon request up to 2 NO or 2 CO (SPDT) contacts per function
Insensitivity to magnetic fields	25 mT
Switching voltage max.	240 V DC / V AC
Carry current max.	3 A
Switching current max. / 24 V DC	3 A
Switching current max. / 240 V AC	0,4 A
Contact rating max.	100 W / VA
Minimum applicable load	3 W; 125 mA / 24 V DC
	Key figures
Nominal pipe diameter	DN25 / DN50 / DN80 / G 1½" threaded connection
Ambient temperature	- 30 °C / + 55 °C (DIN EN 60068-2-78 : 2002-09)
Temperature of the insulating liquid	- 30 °C / + 115 °C (low temperature design upon request)
Degree of protection	IP 65
Gas volume for response	200 cm^3 - 300 cm^3
Viscosity of the insulating liquid	< 1100 mm^2/s
Cable gland	M 20 x 1,5 (others upon request)
Nominal installation position	0° - 5° (ascending towards expansion tank)
	Tests
Vibration resistance	DIN EN 60068-2-6; 2 - 200 Hz; 7 mm; 20 m/s^2
Shock resistance	DIN EN 60068-2-27; 1/2 sin; 250 m/s^2; 11 ms
Pressure resistance	250 kPa
Vacuum resistance	< 2,5 kPa
	Flap valve
Flap valve	Magnetically held
Response time	< 0,5 s
Insulating liquid flow speed	0,65 m/s, 1 m/s, 1,5 m/s, 2 m/s, (each ±15%)

MGSD2017-01



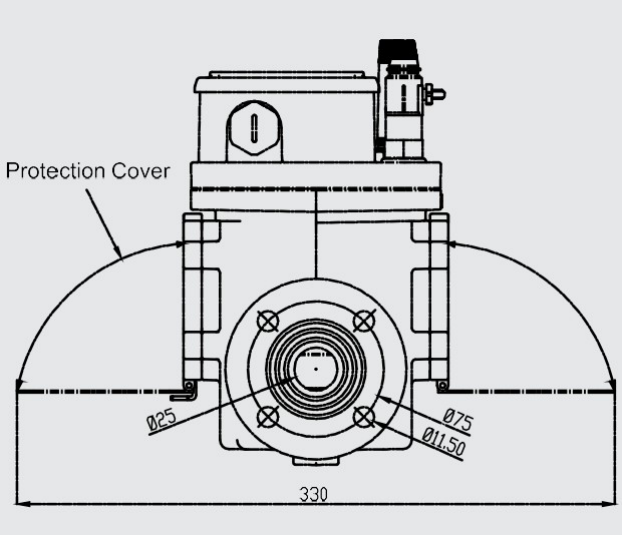


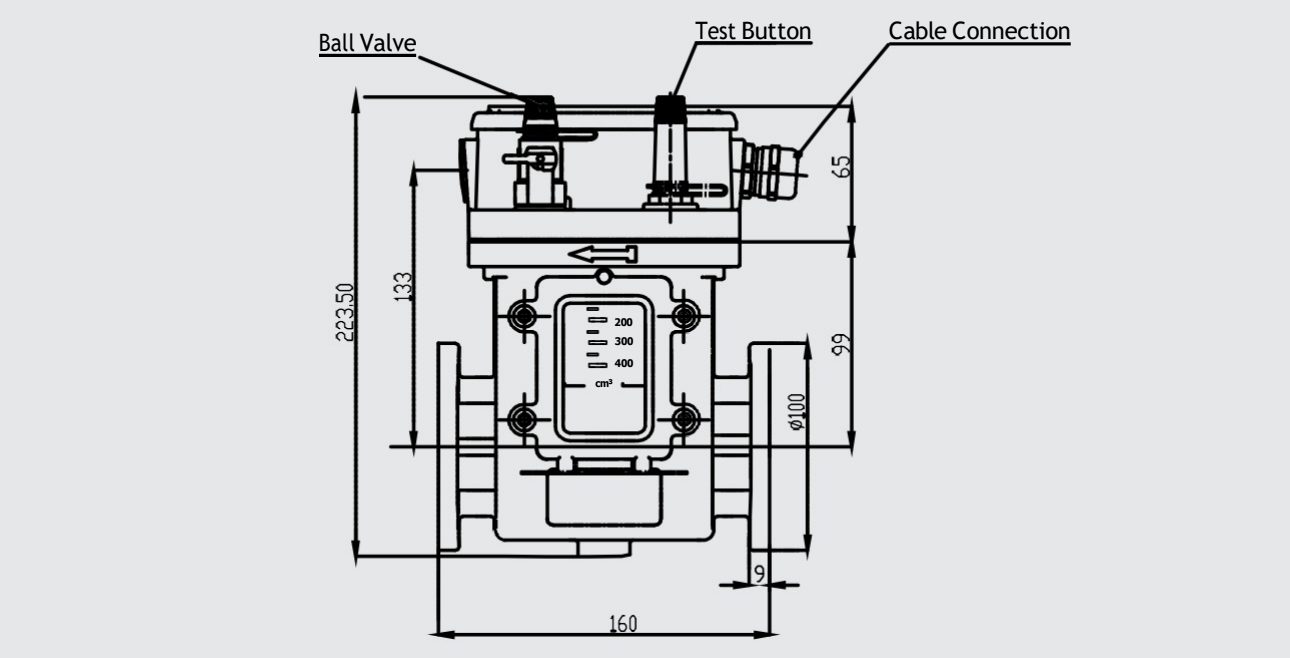




Type	Type Number	Colour	Weight (kg)
MGSD	MGSD2017-01	RAL 7033	1,9

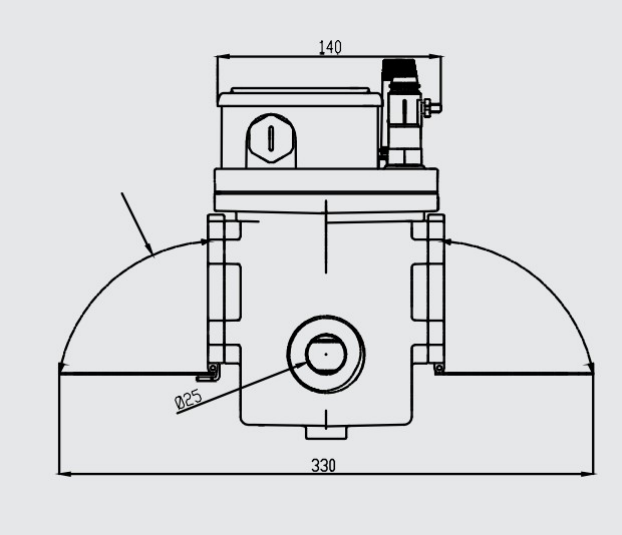
MBP 25-F16

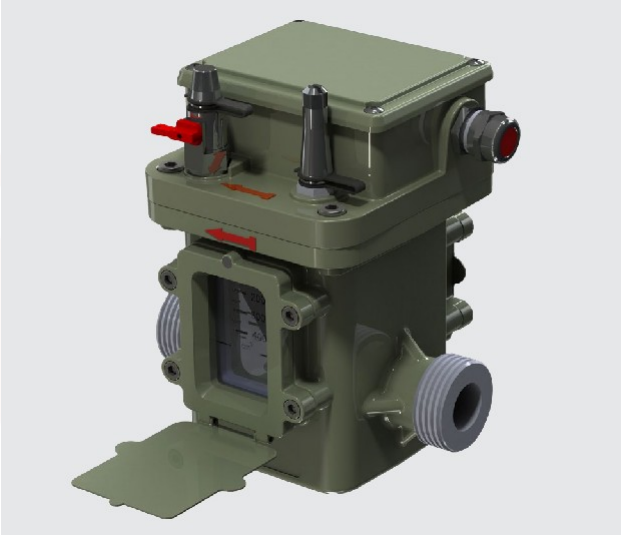


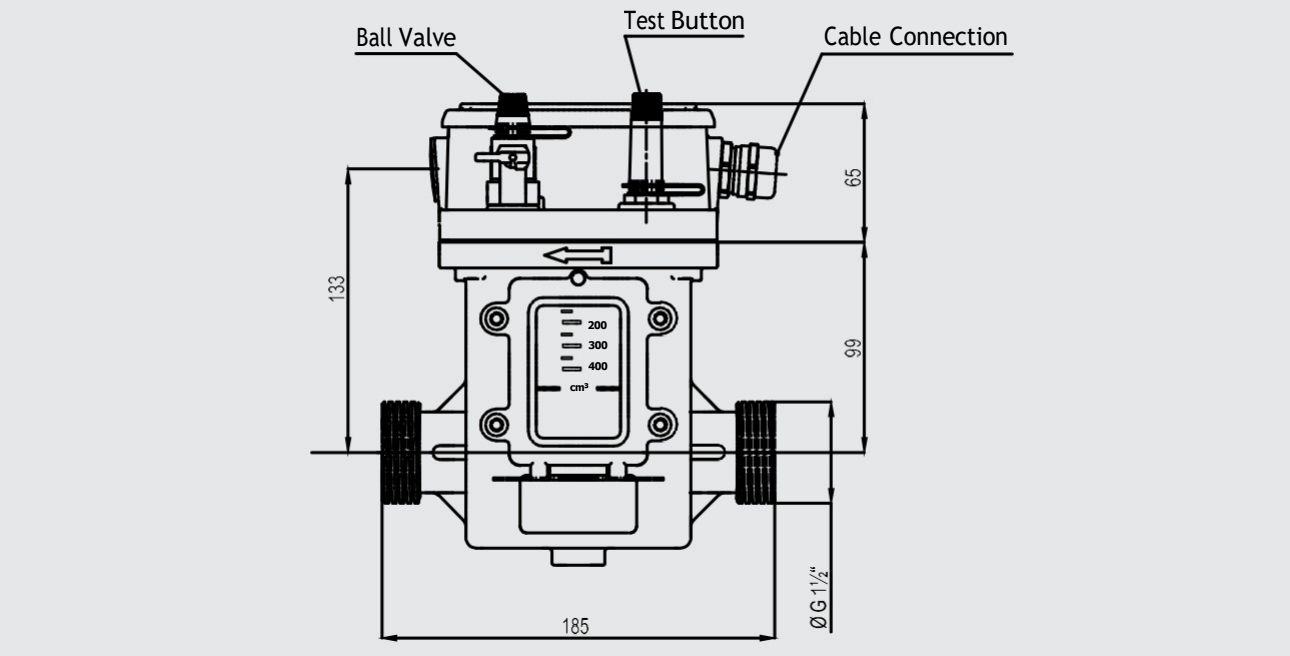


Type	Type Number	Connection	Nominal Pipesize (mm)	Weight (kg)	Transformer Power Class
MBP 1	MBP25-F16 (DR 25)	Flange Connection	25	4,2	≤ 5 MVA

MBP 25-V50

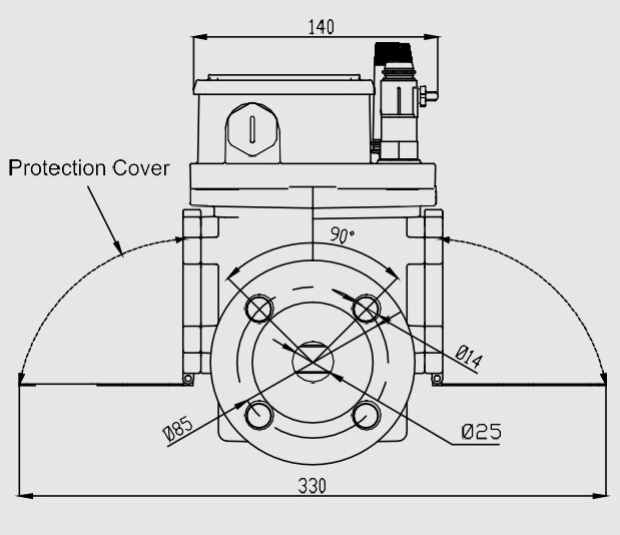


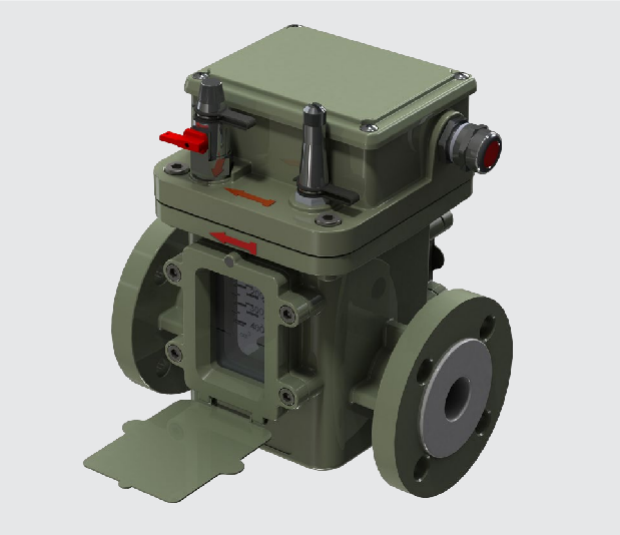


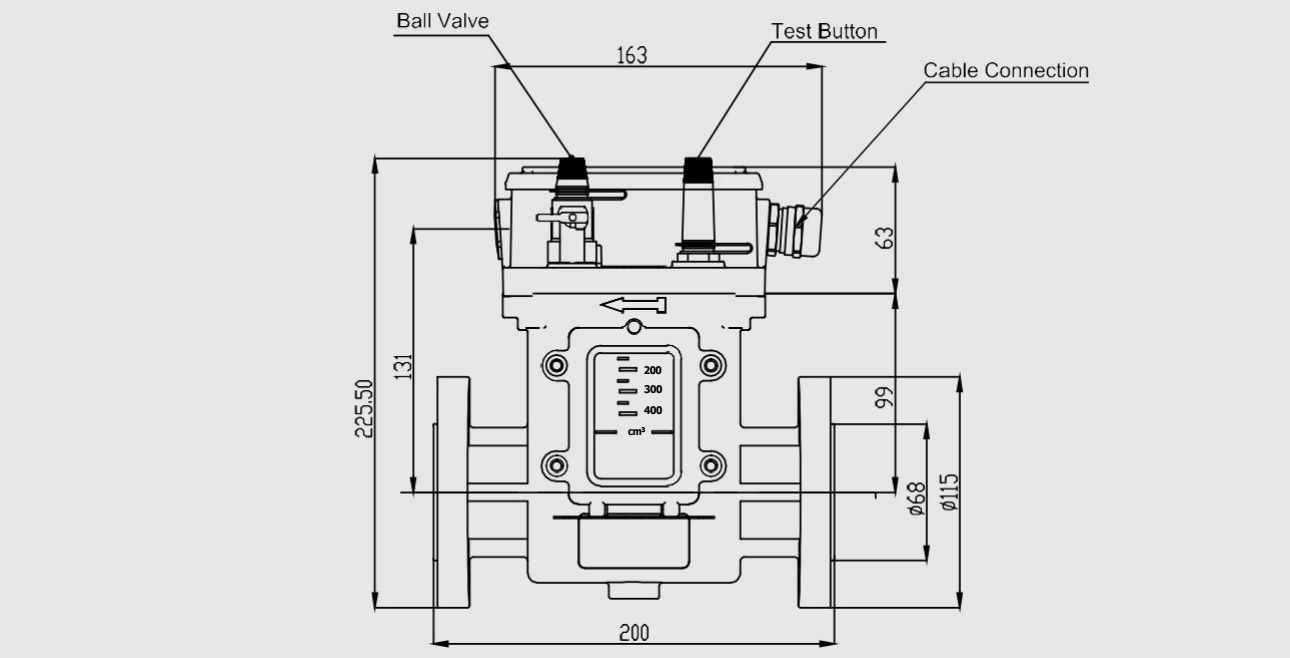


Type	Type Number	Connection	Nominal Pipe size (mm)	Weight (kg)	Transformer Power Class
MBP 2	MBP25-V50 (DR 25)	Threaded Connection G 1½"	25	3,9	≤ 5 MVA

MBP 25-F50

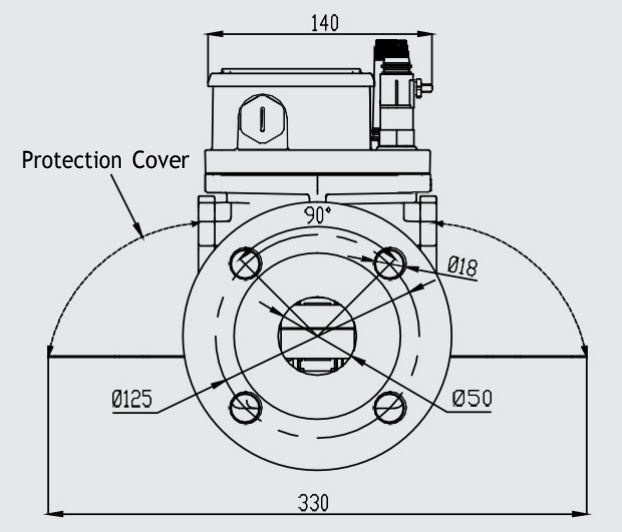


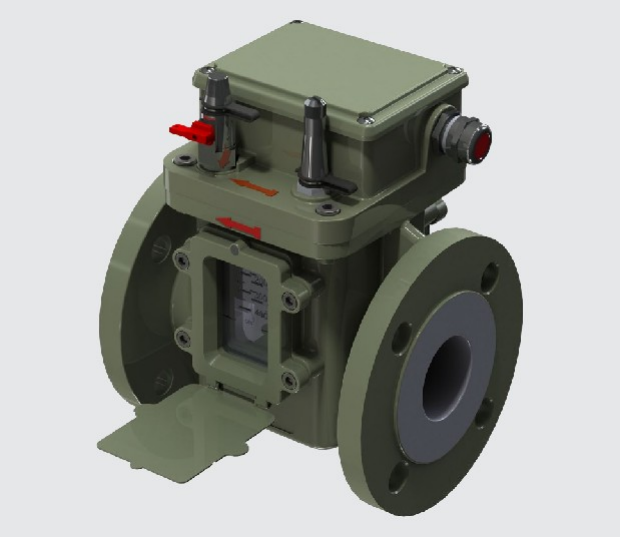


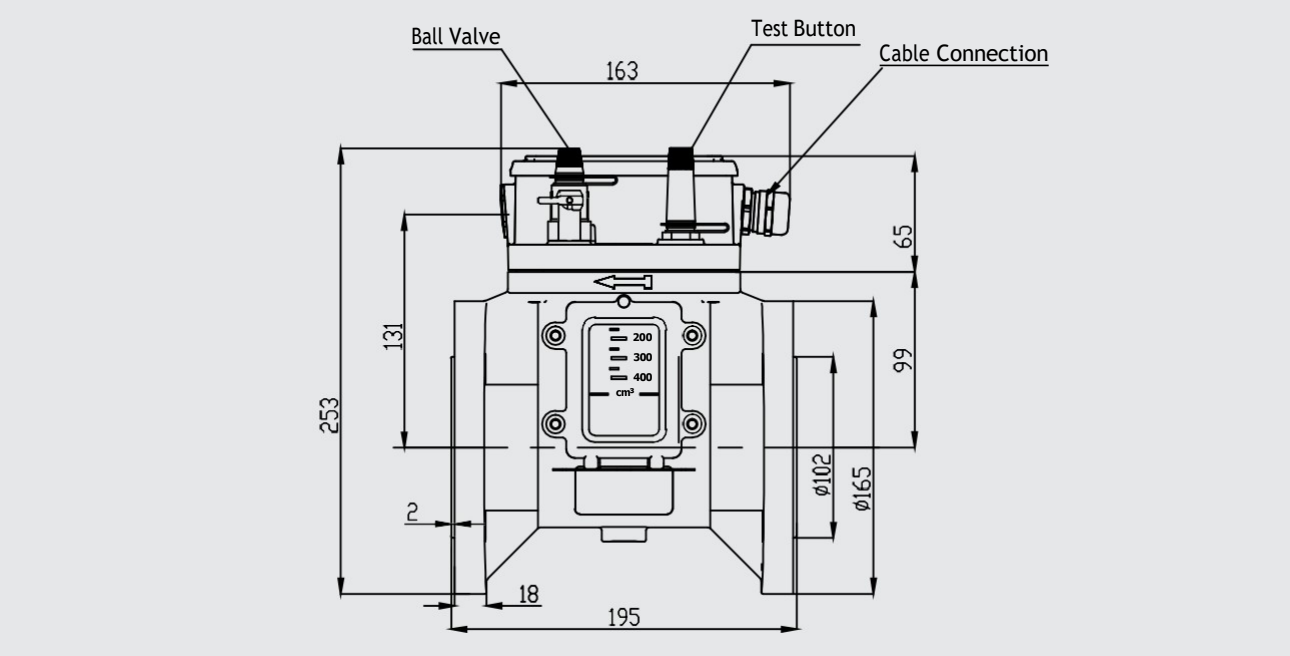


Type	Type Number	Connection	Nominal Pipesize (mm)	Weight (kg)	Transformer Power Class
MBP 3	MBP25-F50 (DR 25)	Flange Connection	25	4,8	≤ 5 MVA

MBP 50-F100

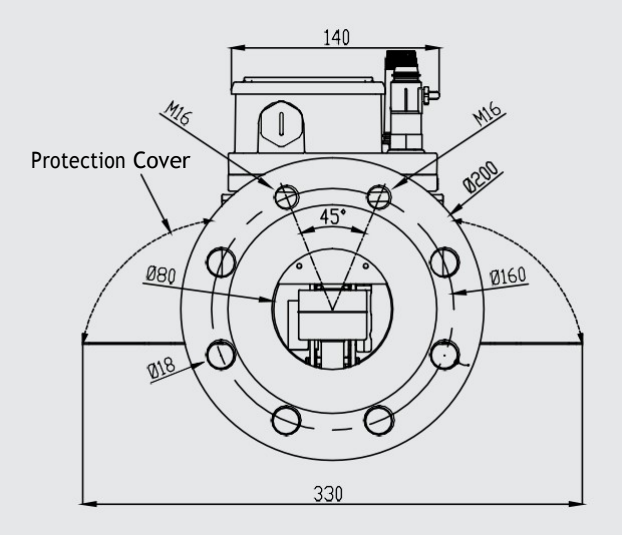


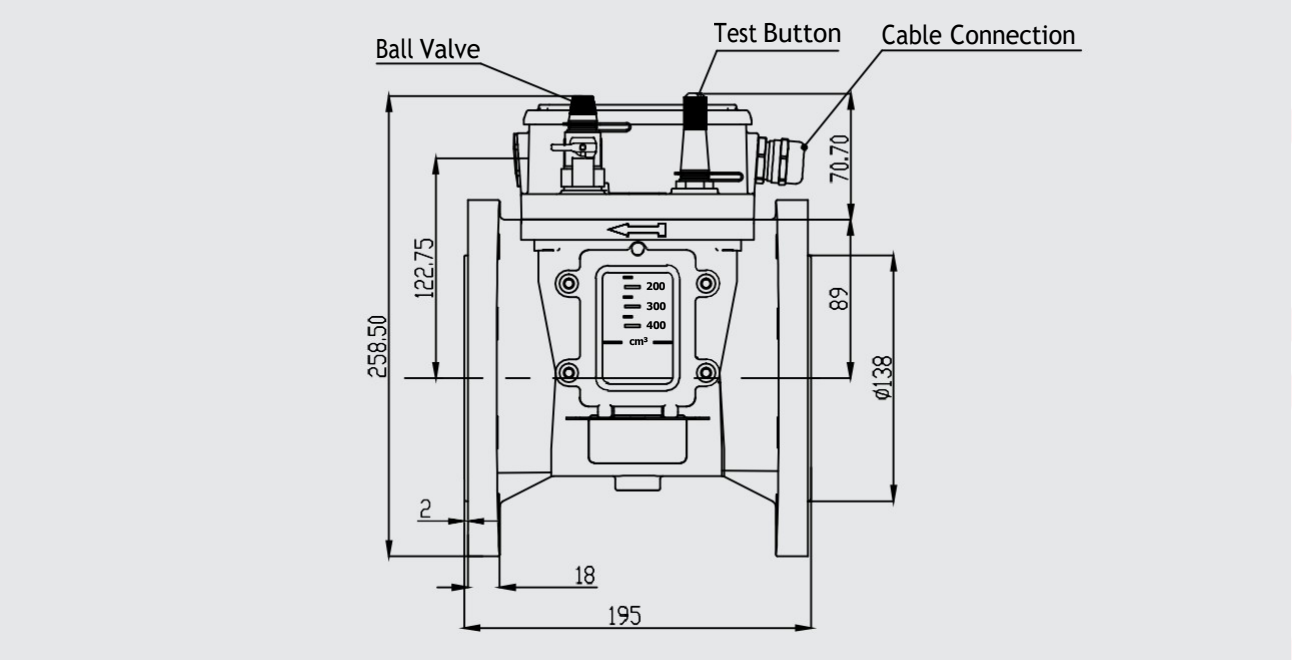




Type	Type Number	Connection	Nominal Pipesize (mm)	Weight (kg)	Transformer Power Class
MBP 4	MBP50-F100 (DR 50)	Flange Connection	50	5,8	≤ 5 MVA ≥ 10 MVA

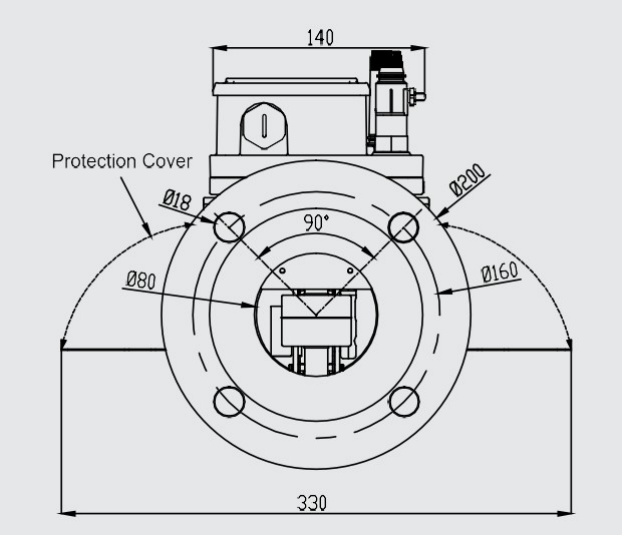
MBP 80-F100

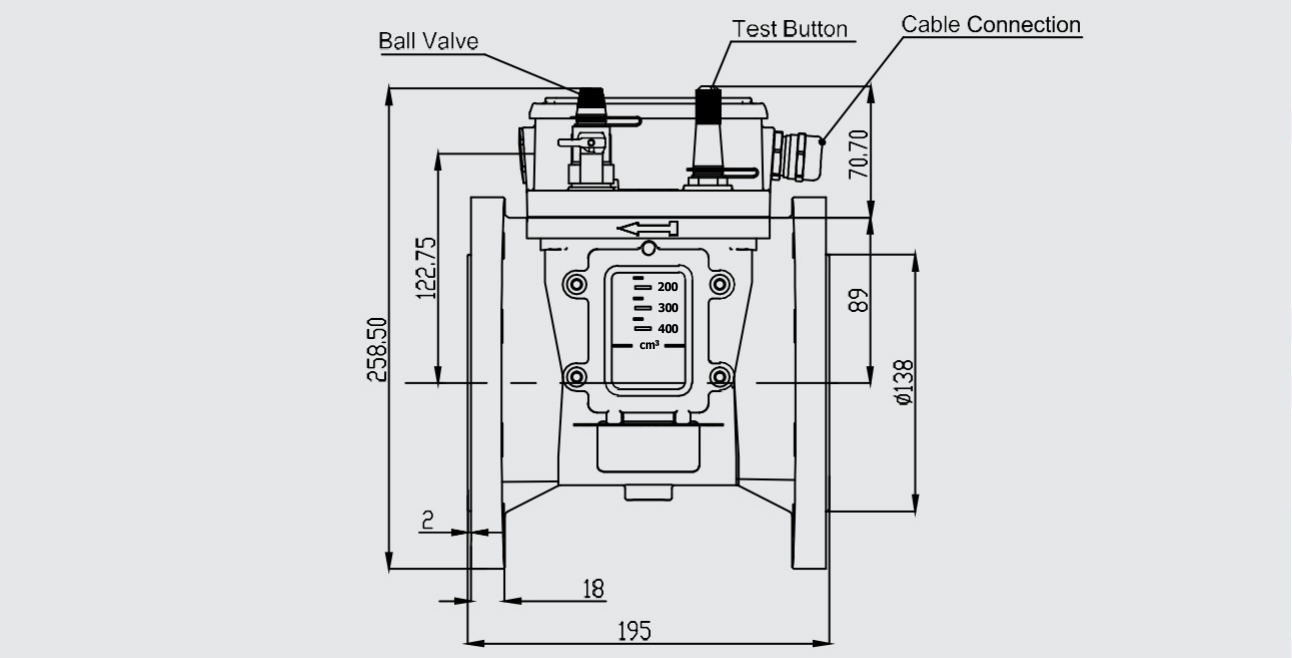




Type	Type Number	Connection	Nominal Pipesize (mm)	Weight (kg)	Transformer Power Class
MBP 5	MBP80-F100 (DR 80)	Flange Connection	80	6,2	≥ 10 MVA

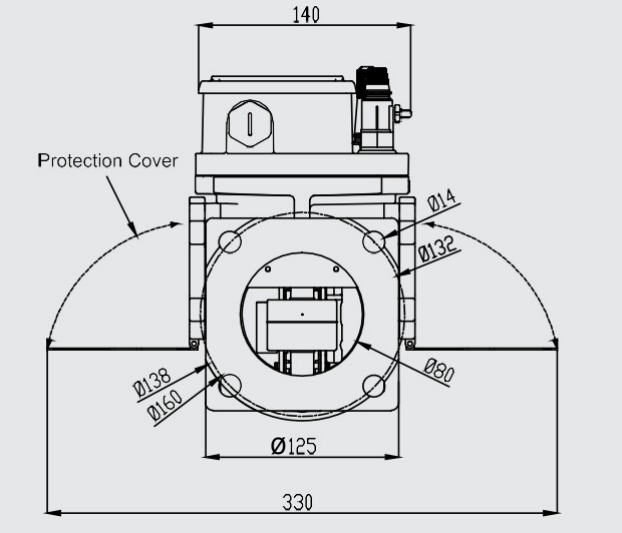
MBP 80-F100 (4-Hole Flange)

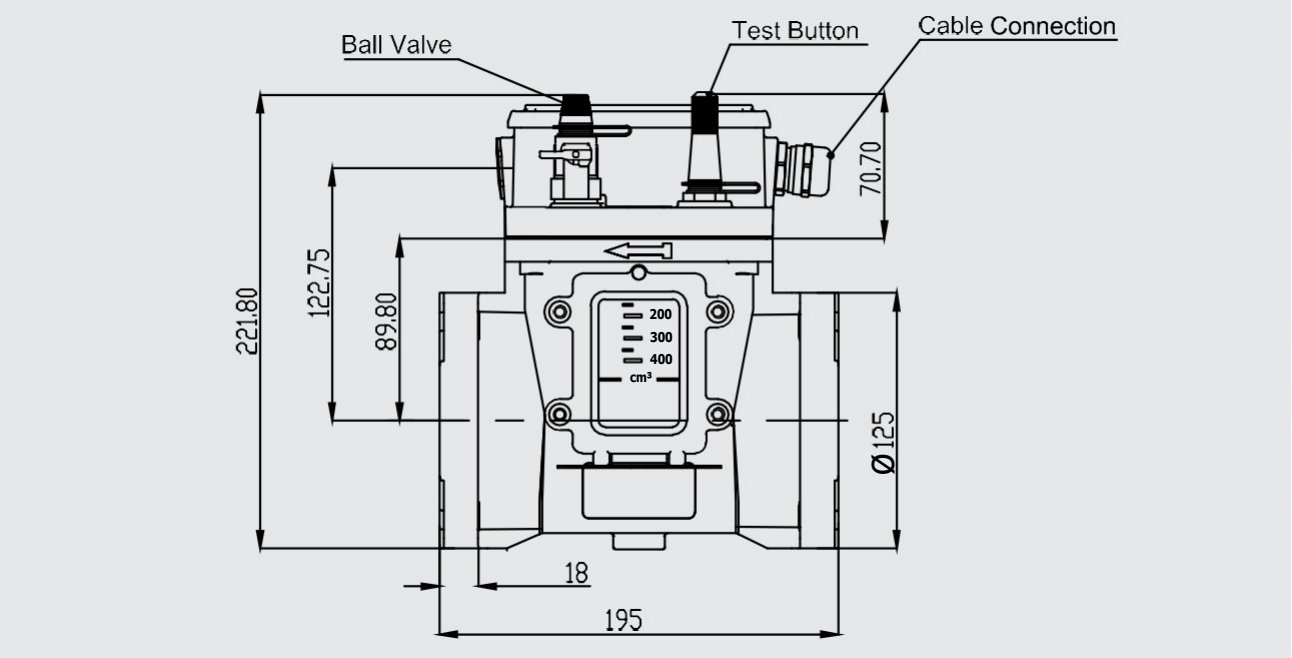




Type	Type Number	Connection	Nominal Pipesize (mm)	Weight (kg)	Transformer Power Class
MBP 6	MBP80-F100 4-Hole (DR 80)	Flange Connection	80	6,5	≥ 10 MVA

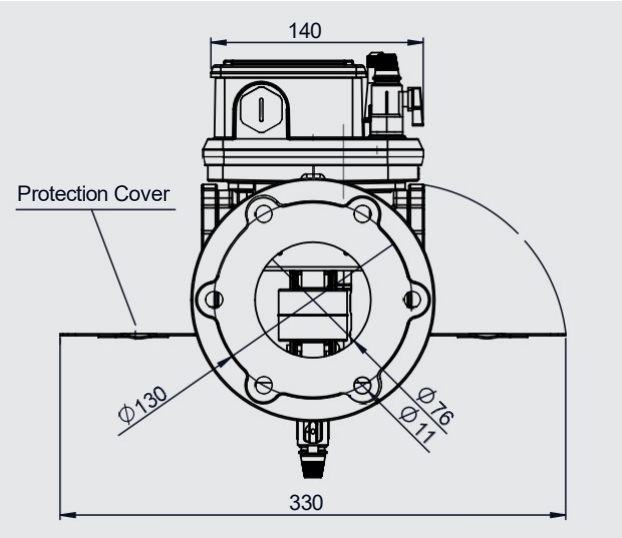
MBP 80-F100 (Square Flange)

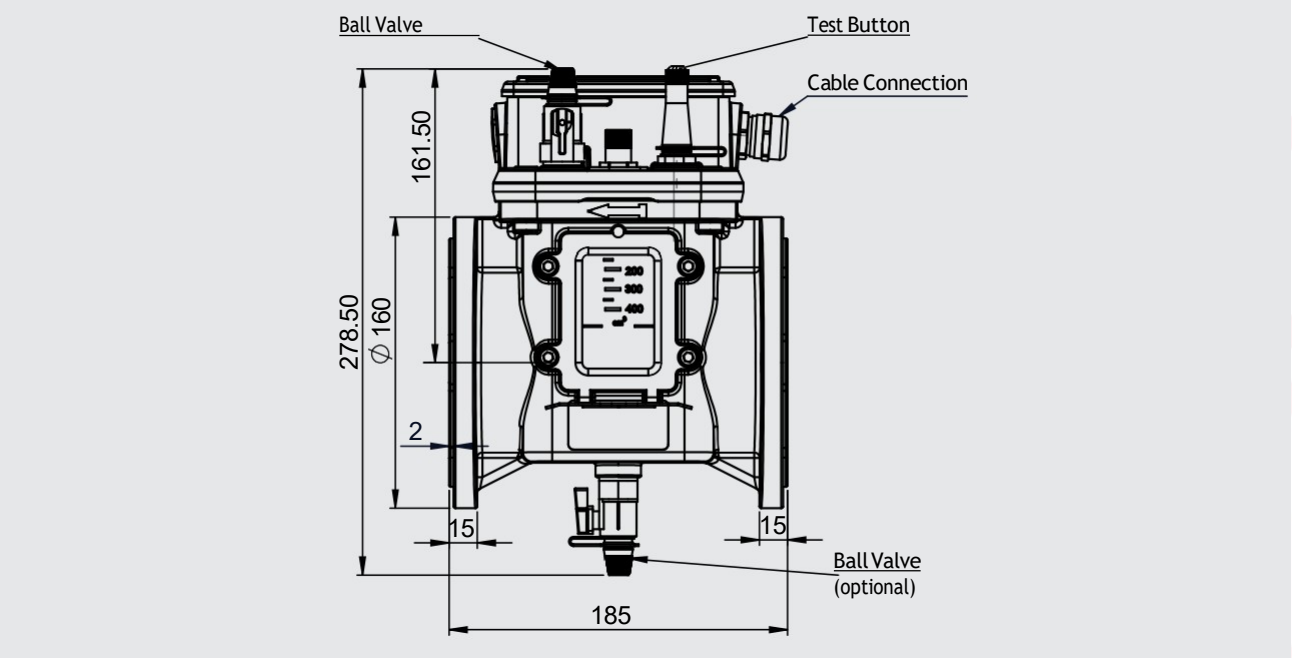




Type	Type Number	Connection	Nominal Pipesize (mm)	Weight (kg)	Transformer Power Class
MBP 7	MBP80-F100 Square Flange (DR 80)	Flange Connection	80	5,8	≥ 10 MVA

MBP 76-F100

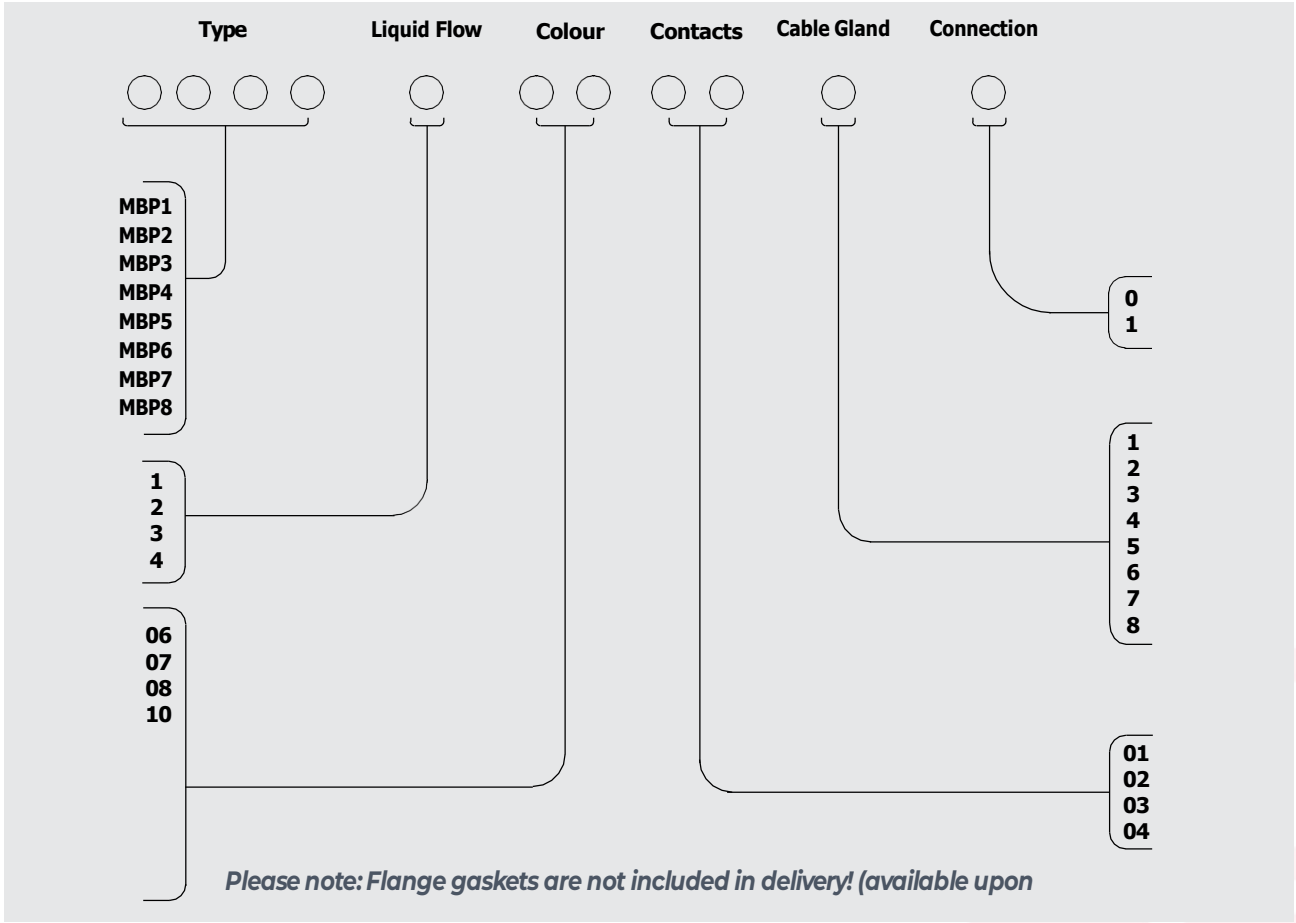




Type	Type Number	Connection	Nominal Pipesize (mm)	Weight (kg)	Transformer Power Class
MBP 8	MBP76-F100	Flanschanschluss	76	6,2	≥ 10 MVA

Ordering Options

In case of an order please select from the table below



Type	Insulating Liquid Flow		Colour *(more upon request)*		Contacts		Cable Gland		Connection Parts	
	m/s	Code	Type	Code	Type	Code	Type	Code	Type	Code
MBP 1 MBP 2 MBP 3 MBP 4 MBP 5 MBP 6 MBP 7 MBP 8	0,65 m/s 1,00 m/s 1,50 m/s 2,00 m/s	1 2 3 4	RAL 7032 **RAL 7033** RAL 7035 RAL 7035	06 **07** 08 10	1 NO 1 CO (SPDT) 2 NO 2 CO (SPDT)	01 02 03 04	PG 16 PG 21 M 20 x 1,5 PG 16 (2 pcs) PG 21 (2 pcs) M 20 x 1,5 (2 pcs) M 25 x 1,5 M 25 x 1,5 (2pcs)	1 2 3 4 5 6 7 8	Witho ut With	0 1