



**MARINE PRODUCT GUIDE**



More than 20 years ago Wema started manufacturing water and fuel level senders for the boating fraternity from a small building in Bergen, a beautiful coastal city located on the North Sea. Since that time Wema has produced millions of sensors with a quality track record second to none. This is why many leading OEMs worldwide including boat builders, specify Wema fuel and level senders as standard equipment. All part of their quality focus.

Wema can also produce custom level sensors for boat builders and tank manufacturers, with options such as alternate lengths, resistance values, termination, tank interfacing, fuel pick-ups and much more.





In recent times Wema has introduced a whole new range of marine gauges to build on their reputation as a supplier of quality marine products. The new range is as innovative as it is attractive with a wide range of product, styles and colours to suit any application in both the leisure and commercial marine market.





Once again Wema can also produce customised gauges for OEMs from a simple logo to a complete dial design.





Please consider Wema gauges and senders for your next application and discover why Wema is the best choice, bar none.

## CONTENTS

FUEL LEVEL	1
WATER LEVEL	1
WASTE LEVEL	1
VOLTMETER	2
DIGITAL VOLTS	2
DIGITAL AMPS	2
PRESSURE	3
TEMPERATURE	4
HOURMETER	5
TACHOURMETER	5
GPS SPEEDOMETER	6
RUDDER ANGLE	6
ACCESSORIES	6
SENDERS	7
ADAPTORS	9





<b>FUEL LEVEL</b>									
	MODEL	IPFR-BB	UPFR-BB	IPFR-WW	UPFR-WW	IPFR-BS	UPFR-BS	IPFR-WS	UPFR-WS
	CODE	110320	110325	110324	110326	110620	110625	110624	110626
	RESISTANCE	0-190 Ohm	240-30 Ohm	0-190 Ohm	240-30 Ohm	0-190 Ohm	240-30 Ohm	0-190 Ohm	240-30 Ohm
	DIAL	Black		White		Black		White	
	BEZEL	Black Plastic		White Plastic		Stainless Steel		Stainless Steel	
NOTE	Ø 52mm Gauge; Range E-F; 12V - dropping resistor included for 24V applications. Refer to senders on page 8.								


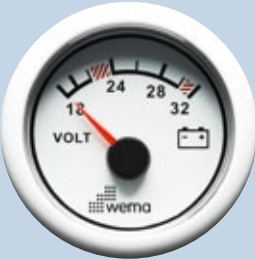


<b>WATER LEVEL</b>					
	MODEL	IPWR-BB	IPWR-WW	IPWR-BS	IPWR-WS
	CODE	110310	110314	110610	110614
	RESISTANCE	0-190 Ohms	0-190 Ohms	0-190 Ohms	0-190 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range E-F; 12V - dropping resistor included for 24V applications. Refer to senders on page 8.				





<b>WASTE LEVEL</b>					
	MODEL	HTG-BB	HTG-WW	HTG-BS	HTG-WS
	CODE	110397	110398	110697	110698
	RESISTANCE	240-30 Ohms	240-30 Ohms	240-30 Ohms	240-30 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range Low-Full; 12V - dropping resistor included for 24V applications. Refer to senders on page 9.				





NOTE: Black dial gauges are stock items, white dial gauges available upon request.




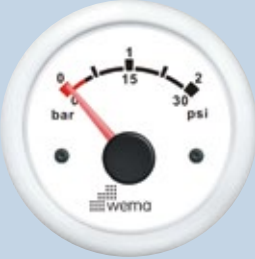


<b>12V VOLTMETER</b>					
	MODEL	IPVR-BB-8-16	IPVR-WW-8-16	IPVR-BS-8-16	IPVR-WS-8-16
	CODE	110330	110334	110630	110634
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 8-16VDC. For 12VDC connection only.				





<b>24V VOLTMETER</b>					
	MODEL	IPVR-BB-18-32	IPVR-WW-18-32	IPVR-BS-18-32	IPVR-WS-18-32
	CODE	110340	110344	110640	110644
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 16-32VDC. For 24VDC connection only.				





<b>DIGITAL VOLTMETER</b>					
	MODEL	IEVR-BB-8-32	IEVR-WW-8-32	IEVR-BS-8-32	IEVR-WS-8-32
	CODE	110360	110364	110660	110664
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 8-32VDC. Suitable for both 12 & 24VDC connection.				


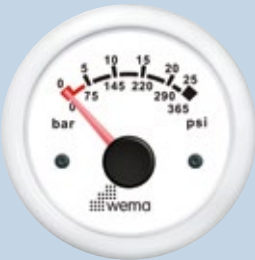


<b>DIGITAL AMMETER</b>					
	MODEL	AMP KIT-BB	AMP KIT-WW	AMP KIT-BS	AMP KIT-WS
	CODE	110337	110338	110637	110638
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge. Range -150 to +150 Amps with a resolution of +/-1 amp. Complete kit, including shunt. Suitable for both 12 & 24VDC connection.				

NOTE: Black dial gauges are stock items, white dial gauges available upon request.





<b>0-2 PRESSURE</b>					
	MODEL	IORP-BB-0-2	IORP-WW-0-2	IORP-BS-0-2	IORP-WS-0-2
	CODE	110372	110373	110672	110673
	RESISTANCE	10-185 Ohms	10-185 Ohms	10-185 Ohms	10-185 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 0-2 Bar. 12V – dropping resistor included for 24V applications. Refer to pressure senders on page 7.				





<b>0-5 PRESSURE</b>					
	MODEL	IORP-BB-0-5	IORP-WW-0-5	IORP-BS-0-5	IORP-WS-0-5
	CODE	110374	110375	110674	110675
	RESISTANCE	10-185 Ohms	10-185 Ohms	10-185 Ohms	10-185 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 0-5 Bar. 12V – dropping resistor included for 24V applications. Refer to pressure senders on page 7.				





<b>0-10 PRESSURE</b>					
	MODEL	IORP-BB-0-10	IORP-WW-0-10	IORP-BS-0-10	IORP-WS-0-10
	CODE	110376	110377	110676	110677
	RESISTANCE	10-185 Ohms	10-185 Ohms	10-185 Ohms	10-185 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 0-10 Bar. 12V – dropping resistor included for 24V applications. Refer to pressure senders on page 7.				

<b>0-25 PRESSURE</b>					
	MODEL	IORP-BB-0-25	IORP-WW-0-25	IORP-BS-0-25	IORP-WS-0-25
	CODE	110378	110379	110678	110679
	RESISTANCE	10-185 Ohms	10-185 Ohms	10-185 Ohms	10-185 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 0-25 Bar. 12V – dropping resistor included for 24V applications. Refer to pressure senders on page 7.				

NOTE: Black dial gauges are stock items, white dial gauges available upon request.





COOLANT TEMPERATURE					
	MODEL	IPTR-BB	IPTR-WW	IPTR-BS	IPTR-WS
	CODE	110355	110359	110655	110659
	RESISTANCE	260-23 Ohms	260-23 Ohms	260-23 Ohms	260-23 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 40-120°. 12V – dropping resistor included for 24V applications. Refer to temperature senders on page 7.				





OIL TEMPERATURE					
	MODEL	IPYR-BB	IPYR-WW	IPYR-BS	IPYR-WS
	CODE	110370	110371	110670	110671
	RESISTANCE	260-23 Ohms	260-23 Ohms	260-23 Ohms	260-23 Ohms
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 40-120°. 12V – dropping resistor included for 24V applications. Refer to temperature senders on page 7.				





EXHAUST GAS TEMPERATURE					
	MODEL	IMTR-BB	IMTR-WW	IMTR-BS	IMTR-WS
	CODE	110347	110348	110647	110648
	SIGNAL	K-type	K-type	K-type	K-type
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Range 0-800°C. 12V – dropping resistor included for 24V applications. Refer to thermocouple senders on page 7.				

NOTE: Black dial gauges are stock items, white dial gauges available upon request.







<b>DIGITAL HOURMETER</b>					
	MODEL	ICUR-BB	ICUR-WW	ICUR-BS	ICUR-WS
	CODE	110351	110352	110651	110652
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; Maximum count 99999.9 hours before returning to 0.				





<b>DIESEL TACHOURMETER</b>					
	MODEL	IMHB-BB-4KL	IMHB-WW-4KL	IMHB-BS-4KL	IMHB-WS-4KL
	CODE	To be advised	To be advised	To be advised	To be advised
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 85mm Gauge; Range 0-4000rpm; 12V - dropping resistor included for 24V applications. Suitable for alternator and inductive (flywheel ring gear) signal input.				





<b>GASOLINE TACHOURMETER</b>					
	MODEL	IMHB-BB-8KL	IMHB-WW-8KL	IMHB-BS-8KL	IMHB-WS-8KL
	CODE	To be advised	To be advised	To be advised	To be advised
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø85mm Gauge; Range 0-8000rpm; 12V - dropping resistor included for 24V applications; Suitable for conventional ignition (2 and 4 cycle) signal input.				


NOTE: Black dial gauges are stock items, white dial gauges available upon request.



<b>30KN GPS SPEEDO</b>					
	MODEL	IGPS-BB-30	IGPS-WW-30	IGPS-BS-30	IGPS-WS-30
	CODE	110393	110394	110693	110694
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 85mm Gauge; Range 0-30 knots. 12V – dropping resistor included for 24V applications.				

<b>60KN GPS SPEEDO</b>					
	MODEL	IGPS-BB-60	IGPS-WW-60	IGPS-BS-60	IGPS-WS-60
	CODE	110388	110389	110688	110689
	DIAL	Black	White	Black	White
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 85mm Gauge; Range 0-60 knots. 12V – dropping resistor included for 24V applications.				

<b>52 RUDDER ANGLE</b>					
	MODEL	IRR-5-BB	IRR-5-WW	IRR-5-BS	IRR-5-WS
	CODE	110327	110328	110621	110622
	RESISTANCE	0-190 Ohms	0-190 Ohms	0-190 Ohms	0-190 Ohms
	BEZEL	Black Plastic	White Plastic	Stainless Steel	Stainless Steel
NOTE	Ø 52mm Gauge; 12/24V. 12V – dropping resistor included for 24V applications. Refer to rudder angle sender on page 7.				

<b>85 RUDDER ANGLE</b>		
	MODEL	IRR-6-BB
	CODE	110667
	RESISTANCE	0-190 Ohms
	BEZEL	Black Plastic
NOTE	Ø85mm Gauge; 12/24V. 12V – dropping resistor included for 24V applications. Refer to sender page 7.	

<b>ACCESSORIES</b>			
	MODEL	SFB-52	SFB-85
	CODE	160004	160043
	DESC	Stainless Flush Bezel	Stainless Flush Bezel
	TO SUIT	52mm With Bayonet Bezel	85mm With Bayonet Bezel
OD	68mm	110mm	
NOTE	Suitable only for BB and WW Series gauges with removable bayonet bezels.		

NOTE: Black dial gauges are stock items, white dial gauges available upon request.



## PRESSURE SENDERS – ENGINE AND GEAR OIL

MODEL	CODE	RANGE	RESISTANCE	THREAD	FORM
	319005	0-5 bar	10-185 Ohms	1/8" NPTF	Grounded
	319010	0-10 bar	10-185 Ohms	1/8" NPTF	Grounded
	218002	0-2 bar	10-185 Ohms	1/8" NPTF	Ungrounded
	218005	0-5 bar	10-185 Ohms	1/8" NPTF	Ungrounded
	218010	0-10 bar	10-185 Ohms	1/8" NPTF	Ungrounded
	218025	0-25 bar	10-185 Ohms	1/8" NPTF	Ungrounded



## TEMPERATURE SENDERS – ENGINE COOLANT AND ENGINE OIL

MODEL	CODE	RANGE	RESISTANCE	THREAD	FORM
	412524*	40-120°C	260-23 Ohms	1/8" NPTF	Grounded
STP-1X	150115	40-120°C	260-23 Ohms	1/8" NPTF	Grounded
STP-2G	150126	40-120°C	260-23 Ohms	1/4" NPTF	Ungrounded
STP-2B	150121	40-120°C	260-23 Ohms	3/8" NPTF	Ungrounded
STP-2F	150125	40-120°C	260-23 Ohms	1/2" NPTF	Ungrounded
STP-2D	150123	40-120°C	260-23 Ohms	5/8" UNF	Ungrounded
STP-2E	150124	40-120°C	260-23 Ohms	M14	Ungrounded
STP-2A	150120	40-120°C	260-23 Ohms	M16	Ungrounded
STP-1C	150118	40-120°C	260-23 Ohms	M18	Ungrounded

Light duty version. For heavy duty applications use model STP-1X



## EXHAUST GAS TEMPERATURE SENDER

MODEL	CODE	RANGE	DESCRIPTION	THREAD	FORM
	015-029	0-800°C	Standard straight	1/2" NPTF	Ungrounded
	015-030	0-800°C	Standard 90° angle	1/2" NPTF	Ungrounded
SEX-1	150210	0-800°C	Heavy duty long lead	3/8" NPTF	Ungrounded



## RUDDER ANGLE INDICATOR SENDER

MODEL	CODE	ANGLE RANGE	RESISTANCE	TYPE	FORM
ROD-5	150311	40°-0-40°	0-190 Ohms	Lever Arm	Ungrounded



# TANK LEVEL SENDERS – FUEL AND WATER



MODEL	CODE	TANK DEPTH	RESISTANCE	MOUNTING TYPE
S3-E150	326000	150mm	0-190 Ohms	Threaded 1/4" BSP
S3-E175	326001	175mm	0-190 Ohms	Threaded 1/4" BSP
S3-E200	326002	200mm	0-190 Ohms	Threaded 1/4" BSP
S3-E225	326003	225mm	0-190 Ohms	Threaded 1/4" BSP
S3-E250	326004	250mm	0-190 Ohms	Threaded 1/4" BSP
S3-E275	326005	275mm	0-190 Ohms	Threaded 1/4" BSP
S3-E300	326006	300mm	0-190 Ohms	Threaded 1/4" BSP
S3-E350	326007	350mm	0-190 Ohms	Threaded 1/4" BSP
S3-E400	326008	400mm	0-190 Ohms	Threaded 1/4" BSP
S3-E450	326009	450mm	0-190 Ohms	Threaded 1/4" BSP
S3-E500	326010	500mm	0-190 Ohms	Threaded 1/4" BSP
S3-E550	326011	550mm	0-190 Ohms	Threaded 1/4" BSP
S3-E600	326012	600mm	0-190 Ohms	Threaded 1/4" BSP
S3-E650	326013	650mm	0-190 Ohms	Threaded 1/4" BSP
S3-E700	326014	700mm	0-190 Ohms	Threaded 1/4" BSP
S3-E750	326015	750mm	0-190 Ohms	Threaded 1/4" BSP
S3-E800	326016	800mm	0-190 Ohms	Threaded 1/4" BSP
S3-E850	326017	850mm	0-190 Ohms	Threaded 1/4" BSP
S3-E900	326018	900mm	0-190 Ohms	Threaded 1/4" BSP
S3-E1000	326020	1000mm	0-190 Ohms	Threaded 1/4" BSP
S3-E1100	326021	1100mm	0-190 Ohms	Threaded 1/4" BSP
S3-E1200	326022	1200mm	0-190 Ohms	Threaded 1/4" BSP
S3-E1300	326023	1300mm	0-190 Ohms	Threaded 1/4" BSP
S3-E1400	326024	1400mm	0-190 Ohms	Threaded 1/4" BSP
S3-E1500	326025	1500mm	0-190 Ohms	Threaded 1/4" BSP
S3-A150	326060	150mm	240-30 Ohms	Threaded 1/4" BSP
S3-A175	326061	175mm	240-30 Ohms	Threaded 1/4" BSP
S3-A200	326062	200mm	240-30 Ohms	Threaded 1/4" BSP
S3-A225	326063	225mm	240-30 Ohms	Threaded 1/4" BSP
S3-A250	326064	250mm	240-30 Ohms	Threaded 1/4" BSP
S3-A275	326065	275mm	240-30 Ohms	Threaded 1/4" BSP
S3-A300	326066	300mm	240-30 Ohms	Threaded 1/4" BSP
S3-A350	326067	350mm	240-30 Ohms	Threaded 1/4" BSP
S3-A400	326068	400mm	240-30 Ohms	Threaded 1/4" BSP
S3-A450	326069	450mm	240-30 Ohms	Threaded 1/4" BSP
S3-A500	326070	500mm	240-30 Ohms	Threaded 1/4" BSP
S3-A550	326071	550mm	240-30 Ohms	Threaded 1/4" BSP
S3-A600	326072	600mm	240-30 Ohms	Threaded 1/4" BSP
S3-A650	326073	650mm	240-30 Ohms	Threaded 1/4" BSP
S3-A700	326074	700mm	240-30 Ohms	Threaded 1/4" BSP
S3-A750	326075	750mm	240-30 Ohms	Threaded 1/4" BSP
S3-A800	326076	800mm	240-30 Ohms	Threaded 1/4" BSP
S3-A850	326077	850mm	240-30 Ohms	Threaded 1/4" BSP
S3-A900	326078	900mm	240-30 Ohms	Threaded 1/4" BSP
S3-A1000	326080	1000mm	240-30 Ohms	Threaded 1/4" BSP





MODEL	CODE	TANK DEPTH	RESISTANCE	MOUNTING TYPE
S5-E150	323100	150mm	0-190 Ohms	5 hole SAE Flange
S5-E175	323101	175mm	0-190 Ohms	5 hole SAE Flange
S5-E200	323102	200mm	0-190 Ohms	5 hole SAE Flange
S5-E225	323103	225mm	0-190 Ohms	5 hole SAE Flange
S5-E250	323104	250mm	0-190 Ohms	5 hole SAE Flange
S5-E275	323105	275mm	0-190 Ohms	5 hole SAE Flange
S5-E300	323106	300mm	0-190 Ohms	5 hole SAE Flange
S5-E350	323107	350mm	0-190 Ohms	5 hole SAE Flange
S5-E400	323108	400mm	0-190 Ohms	5 hole SAE Flange
S5-E450	323109	450mm	0-190 Ohms	5 hole SAE Flange
S5-E500	323110	500mm	0-190 Ohms	5 hole SAE Flange
S5-E550	323111	550mm	0-190 Ohms	5 hole SAE Flange
S5-E600	323112	600mm	0-190 Ohms	5 hole SAE Flange
S5-E650	323113	650mm	0-190 Ohms	5 hole SAE Flange
S5-E700	323114	700mm	0-190 Ohms	5 hole SAE Flange
S5-E750	323115	750mm	0-190 Ohms	5 hole SAE Flange
S5-E800	323116	800mm	0-190 Ohms	5 hole SAE Flange
S5-E850	323117	850mm	0-190 Ohms	5 hole SAE Flange
S5-E900	323118	900mm	0-190 Ohms	5 hole SAE Flange
S5-E1000	323120	1000mm	0-190 Ohms	5 hole SAE Flange
S5-E1100	323121	1100mm	0-190 Ohms	5 hole SAE Flange
S5-E1200	323122	1200mm	0-190 Ohms	5 hole SAE Flange
S5-E1300	323123	1300mm	0-190 Ohms	5 hole SAE Flange
S5-E1400	323124	1400mm	0-190 Ohms	5 hole SAE Flange
S5-E1500	323125	1500mm	0-190 Ohms	5 hole SAE Flange
S5-A150	323130	150mm	240-30 Ohms	5 hole SAE Flange
S5-A175	323131	175mm	240-30 Ohms	5 hole SAE Flange
S5-A200	323132	200mm	240-30 Ohms	5 hole SAE Flange
S5-A225	323133	225mm	240-30 Ohms	5 hole SAE Flange
S5-A250	323134	250mm	240-30 Ohms	5 hole SAE Flange
S5-A275	323135	275mm	240-30 Ohms	5 hole SAE Flange
S5-A300	323136	300mm	240-30 Ohms	5 hole SAE Flange
S5-A350	323137	350mm	240-30 Ohms	5 hole SAE Flange
S5-A400	323138	400mm	240-30 Ohms	5 hole SAE Flange
S5-A450	323139	450mm	240-30 Ohms	5 hole SAE Flange
S5-A500	323140	500mm	240-30 Ohms	5 hole SAE Flange
S5-A550	323141	550mm	240-30 Ohms	5 hole SAE Flange
S5-A600	323142	600mm	240-30 Ohms	5 hole SAE Flange
S5-A650	323143	650mm	240-30 Ohms	5 hole SAE Flange
S5-A700	323144	700mm	240-30 Ohms	5 hole SAE Flange
S5-A750	323145	750mm	240-30 Ohms	5 hole SAE Flange
S5-A800	323146	800mm	240-30 Ohms	5 hole SAE Flange
S5-A850	323147	850mm	240-30 Ohms	5 hole SAE Flange
S5-A900	323148	900mm	240-30 Ohms	5 hole SAE Flange
S5-A1000	323150	1000mm	240-30 Ohms	5 hole SAE Flange

## TANK LEVEL SENDERS - WASTE

MODEL	CODE	TANK DEPTH	RESISTANCE	MOUNTING TYPE
S3H-1	126710	100mm	240-30 Ohms	Threaded 1 1/4" BSP
S3H-2	126711	205mm	240-30 Ohms	Threaded 1 1/4" BSP
S3H-3	126712	305mm	240-30 Ohms	Threaded 1 1/4" BSP
S3H-4	126713	410mm	240-30 Ohms	Threaded 1 1/4" BSP
S3H-5	126715	510mm	240-30 Ohms	Threaded 1 1/4" BSP
S3H-6	126716	760mm	240-30 Ohms	Threaded 1 1/4" BSP



## TANK LEVEL SENDERS - ADAPTORS

				
MODEL	FL-2	FLS-U	HFL	SS-5/4
CODE	163010	163303	163306	163200
DESCRIPTION	Topside flange to adapt S3 1 1/4" BSP to SAE 5 Hole	Underside flange to mount FL-2 or S5 SAE 5 Hole senders	Topside/underside kit to suit S3H 1 1/4" BSP waste senders	Stainless steel weld bush for 1 1/4" BSP tank senders

