

VEHICLE APPLICATION LISTING

ALFA ROMEO							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
75	Tween-Spark	88-92	4 Cyl 06224	2.0L	231.085		
75	AR162	86-92	6 Cyl 01911, 06174	2.5L, 3.0L	231.085		
147		00-On	4 Cyl, 6 Cyl	All	231.117		
156		99-04	4 Cyl, 6 Cyl	2.0L, 2.5L	231.117		
166		99-01	6 Cyl	3.0L	231.117		
GT	2D Coupe	04-on	4 Cyl, 6 Cyl	2.0L 3.0L	231.117		
GTV	All	98-on	4 Cyl, 6 Cyl	2.0L 3.0L	231.117		
Spider	JTS Lusso, Convert	03-05	4 Cyl, 6 Cyl	2.0L	231.117		

AUDI							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
80	CC, 1.8E Quattro, 2.0 & 2.0S	86-87	4 Cyl	1.8L	231.110	320.086	360.022
80	CC, 1.8E Quattro	86-87	4 Cyl	1.8L	231.111	320.086	360.022
90	Sport & Quattro	89-92	5 Cyl	2.3L	231.110		
100	CD	83-91	5 Cyl	2.1L	231.110		
100	CD	83-91	5 Cyl	2.1L	231.111		
200	Turbo	86-91	5 Cyl	2.2L	231.110		
A3	4D Hatchback	97-04	4 Cyl	1.6L	231.111		
A3	4D Hatchback, Turbo	97-04	4 Cyl	1.8L	231.111		
A4	4D Hatchback, Turbo	95-01	4 Cyl	1.8L	231.111	320.086	360.022
A4	1.8T (incl. Quattro)	95-99	4 Cyl	1.8L	231.111		
A4	2.4 V6	98-01	6 Cyl	2.4L	231.110		
A4	2.4 V6	98-on	6 Cyl	2.4L	231.111		
A4	2.4 V6	95-99	6 Cyl	2.6L	231.110		
A4	2.6 V6	95-99	6 Cyl	2.6L	231.110		
A4	2.6 V6 Quattro	95-99	6 Cyl	2.4L	231.111		
A4	2.6 V6 Quattro	94-97	6 Cyl	2.6L	231.111		
A6	2.8 Quattro	94-99	6 Cyl	2.8L	231.110		
A8	3.7 V8	96-99	6 Cyl	3.7L	231.110		
A8	4.2 V8	96-99	6 Cyl	4.2L	231.110		

BMW							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
316i - 320i	E36, E46	95-99	4 Cyl	1.6L	231.115		
318i, 319S	E30	88-91	4 Cyl	1.8L	231.115		
318i	E36, E46	94-98	4 Cyl	1.8L	231.115		
320i	E30, E36	88-95	6 Cyl	2.0L	231.115		
320i	E30	82-85	6 Cyl	2.3L	231.109		
323i - 323Ci	E46	98-on	6 Cyl	2.5L	231.115		
325i - 325e	E30, E36	86-95	6 Cyl	2.5L, 2.7L	231.115		
325Ti - 325Ci	E46	02-on	6 Cyl	2.5L	231.115		
328i - 328Ci	E36, E46	95-00	6 Cyl	2.8L	231.115		
330i - 330Ci	E36	00-on	6 Cyl	3.0L	231.115		
520i	E28	83-85	6 Cyl	2.0L	231.109		
520i	E34	90-96	6 Cyl	2.0L	231.115		
523i	E39	96-00	6 Cyl	2.5L	231.115		

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BMW Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
525i	E34	88-90	6 Cyl	2.5L	231.115		
528i	E28	82-85	6 Cyl	2.8L	231.109		
528i	E39	96-00	6 Cyl	2.8L	231.115		
530i	E34	93-96	8 Cyl	3.0L	231.115		
530i	E60	03-on	6 Cyl	3.0L	231.115		
530i	E28	86-88	6 Cyl	3.4L	231.109		
535i	E28	86-88	6 Cyl	3.4L	231.109		
535i & 535iS	E34	88-91	6 Cyl	3.4L	231.115		
535i	E39	96-on	8 Cyl	3.5L	231.115		
540i	E34	94-96	8 Cyl	4.0L	231.115		
540i	E39	96-03	8 Cyl	4.0L	231.115		
545i	E39	03-on	8 Cyl	4.0L	231.115		
730i	E32	86-94	6 Cyl	3.0L	231.115		
730i	E32 iL	91-94	8 Cyl	3.0L	231.115		
740iL	E32, E38	92-on	8 Cyl	4.0L & 4.4L	231.115		
745iL	E66 LWB	02-on	8 Cyl	4.4L	231.115		
M3, M3R	E36, E46	94-on	6 Cyl	3.0L & 3.2L	231.115		
X3, X5, Z3	E83, E53, E36	97-on	4 Cyl, 6 Cyl, 8 Cyl	1.9L 2.0L, 3.0L, 4.4L,4.6L	231.115		
Z4	2D Convertible	03-on	6 Cyl	2.5L & 3.0L	231.115		

CHRYSLER							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Valiant	All	62-81	6 Cyl, 8 Cyl	All	231.083	320.002	360.001
Charger	All	62-81	6 Cyl, 8 Cyl	All	231.083	320.002	360.001
Centura	KB	75-77	4 Cyl	2.0L	230.089		
Centura	KB, KC	75-78	6 Cyl	3.5L, 4.0L	231.083		
Galant	All	71-77	4 Cyl	All	231.083		

DAEWOO							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
1.5i		94-95	4 Cyl	1.5L	231.096	320.008	
Cielo	1.5 SOHC	94-95	4 Cyl	1.5L		320.008	
Cielo	1.5 SOHC, 1.5 DOHC	95-98	4 Cyl	1.5L	231.096	320.095	
Espero	2.0L SOHC	95-97	4 Cyl	2.0L	231.096		
Kalos	1.5L SOHC	03-04	4 Cyl	1.5L	231.098	320.098	
Lacetti	1.8L DOHC	03-04	4 Cyl	1.8L	231.098	320.095	
Lanos	1.5L SOHC, 1.6 DOHC	97-03	4 Cyl	1.5L	231.114	320.095	
Leganza	2.0L DOHC	97-99	4 Cyl	2.0L	231.114	320.095	
Leganza	2.2L DOHC	99-02	4 Cyl	2.2L	231.114	320.095	
Matiz	KL M100 SOHC	99-01	3 Cyl	0.8L	231.089	320.095	
Matiz	KL M150 SOC	02-04	3 Cyl	0.8L		320.095	
Musso	3.2L DOHC	98-02	6 Cyl	3.2L	231.094		
Nubira	J100	97-99	4 Cyl	1.6L	231.114	320.098	
Nubira	J100	97-99	4 Cyl	2.0L	231.114	320.099	
Nubira	J150	99-03	4 Cyl	2.0L	231.114	320.095	
Tacuma	Wagon 16DOHC	00-04	4 Cyl	2.0L		320.095	

VEHICLE APPLICATION LISTING

DAIHATSU							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Applause	A101	89-99	4 Cyl	1.6L	231.084		
Charade	G10, G11, G11 Turbo	80-87	3 Cyl	1.0L	231.084	320.040	
Charade	G100, G100 Turbo	87-93	3 Cyl	1.0L	231.084	320.040	
Charade	G102	88-93	4 Cyl	1.3L	231.084	320.040	

FORD							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Bronco		81-85	6 Cyl	4.1L	231.106		
Bronco		81-85	8 Cyl	5.8L	231.081		
Bronco		85-87	8 Cyl	4.9L	231.106		
Capri	All	74-84	4 Cyl, 6 Cyl	1.6L, 3.0L	231.107	360.067	
Courier	PC 4WD	87-98	4 Cyl	2.6L	231.084	320.067	
Courier	PE, PG, PH	99-on	4 Cyl	2.6L	231.084	320.067	
Courier	PH	99-on	4 Cyl	2.6L	231.084	320.067	
Econovan	1.4L, 1.8L	84-97	4 Cyl	1.4L, 1.8L	231.084	320.041	
Econovan	1.6L	84-97	4 Cyl	1.6L	231.084	320.068	
Econovan	1.8L, 2.0L	03-on	4 Cyl	1.8L, 2.0L	231.089	320.067	
Econovan	Diesel	81-84	4 Cyl	2.2L	231.084	320.068	
Econovan	Diesel	84-90	4 Cyl	2.2L	231.084	320.041	
Econovan	Diesel	90-97	4 Cyl	2.2L	231.084	320.067	
Escort	All, Mk1, Mk2	68-82	4 Cyl	1.6L, 2.0L	231.107	320.003	
Explorer	UN, UP, UQ, US	96-01	6 Cyl	4.0L			360.033
F100, F250, F350	RWD, 4WD	70-90	6 Cyl	4.1L	231.106	320.101	
F100	4WD EFI, RWD EFI	85-87	8 Cyl	4.9L		320.101	231.106
F150	4WD EFI, RWD EFI,	87-90	8 Cyl	4.9L		320.101	231.106
						320.102	
F250	RWD Carb,	87-90	8 Cyl	4.9L		320.101	231.106
F350	RM RWD EFI	01-02	8 Cyl	5.4L		320.103	
F100, F350	4WD Carb, RWD Carb	78-85	8 Cyl	5.8L		320.101	360.033
F150	4WD EFI, RWD EFI,	90-92	8 Cyl	5.8L			360.033
F250, F350	RWD Carb, 4WD EFI	91-93	8 Cyl	5.8L		320.102	360.033
F350	RWD Turbo Diesel	01-03	8 Cyl	7.3L		320.103	
Fairlane	ZA, ZG	67-76	6 Cyl, 8 Cyl	4.1L, 4.9L	231.081	320.003	
Fairlane	ZJ, ZK , EFI, Carb.	79-83	6 Cyl, 8 Cyl	4.1L, 4.9L	231.106		
Fairlane	ZH	76-79	8 Cyl	4.9L, 5.8L	231.081		360.003
Fairlane	ZL Leaded	84-86	6 Cyl	4.1L	231.106	320.003	
Fairlane	ZL Unleaded	86-88	6 Cyl	4.1L	231.106	320.003	
Fairlane	NA, NC, NF, NL	88-98	6 Cyl	3.9L, 4.0L	231.081	320.065	
Fairlane	NC, NF, NL	91-98	8 Cyl	5.0L	231.106		
Fairlane	NU, NU II	99-02	6 Cyl	3.9L, 4.0L	231.081		
Fairlane	BA, BF, XR6, XR8, UTE	03-on	6 Cyl, 8 Cyl	4.0L, 5.0L	231.100		360.001
Falcon	XK, XP, XR, XT, XW, XY	60-72	6 Cyl, 8 Cyl	All	231.081		
Falcon	XL, XM,	61-65	6 Cyl	All	231.081		
Falcon	XT Carb, XW Carb, XW GTHO Phase 1 & 2, XY Carb, XY GTHO Phase 3	69-71	8 Cyl	5.0L, 5.8L, 4.9L	231.081		

VEHICLE APPLICATION LISTING

FORD Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Falcon	XA, XB, XC, XC Carb	72-79	6 Cyl, 8 Cyl	All	231.081	320.003	360.003
Falcon	XD, XE, UTE	79-84		3.3L, 4.1L	231.106	320.011	360.013
Falcon	XF, UTE, EFI Carb	84-88	6 Cyl	4.1L	231.106	320.011	360.013
Falcon	EA, EA II, EB, ED	89-94	6 Cyl, 8 Cyl	3.2L, 3.9L, 4.0L, 5.0L	231.106	320.065	360.013
Falcon	EF, EFII, EL	94-98	6 Cyl	4.0L	231.106	320.065	360.045
Falcon	EF, EFII, EL	94-98	8 Cyl	5.0L	231.106		360.045
Falcon	AU, AUII, AUIII, UTE, XR6, XR6 UTE	98-02	6 Cyl,	4.0L	231.106		360.045
Falcon	AU, AUII, AUIII, XR8, UTE, XR8 UTE, AU TE50	98-02	8 Cyl	5.0L	231.106		360.045
Falcon	BA, XR6 Turbo, RTV, Ute	02-05	6 Cyl	4.0L	231.100		360.045
Falcon	BA SOHC, XR8 DOHC, Pursuit Ute DOHC	02-05	8 Cyl	5.4L	231.100		
Falcon	BF SOHC/DOHC	05-06	6 Cyl, 8 Cyl	4.0L, 5.4L	231.100		
Falcon	BF Turbo	05-06	6 Cyl	4.0L	231.100		
Falcon	BF MKII	05-06	6 Cyl	4.0L	231.100		
Falcon	BF MKII	06-08	8 Cyl	5.4L	231.100		
Falcon	FG, FG G6 (LPG), FG F6E (Turbo)	08-on	6 Cyl	4.0L	231.100		
Falcon	FG XR8	08-on	8 Cyl	5.4L	231.100		
Falcon	XH Ute / Van	96-98	6 Cyl, 8 Cyl	4.0L, 5.0L	231.106		
Festiva	WA	91-93	4 Cyl	1.3L	231.084		
Festiva	WA	93-94	4 Cyl	1.3L	231.084		
Festiva	WB, WD	94-97	4 Cyl	1.3L	231.102		
Festiva	WF	94-03	4 Cyl	1.3L	231.084 231.102		
Festiva	WD, WF	97-01	4 Cyl	1.5L	231.102		
Fiesta	WP, LX, Zetc, Ghia	04-05	4 Cyl	1.6L, 2.0L	231.107		
Fiesta	WQ, LX, Zetc, Ghia	06-08	4 Cyl	1.6L, 2.0L	231.107		
Fiesta Turbo	WS Turbo Diesel, WT Turbo Diesel	09-on	4 Cyl	1.6L	231.097		
Focus	LT, LV Turbo Diesel	07-on	4 Cyl	2.0L	231.097		
Ka	TA	99-02	4 Cyl	1.3L	231.107		
Laser	KA, KB, KC, KF, TX3, 4WD	81-91	4 Cyl	1.6L	231.084	320.067	
Laser	KC, KH, KJ, TX3	91-99	4 Cyl	1.6L	231.082		
Laser	KA, KB Incl Turbo	81-85	4 Cyl	1.3L, 1.5L	231.099	320.041	
Laser	KC, KC Carb	85-87	4 Cyl	1.3L, 1.6L	231.099	320.041	
Laser	KC Carb	85-90	4 Cyl	1.6L	231.084	320.041	
Laser	KE Carb	87-90	4 Cyl	1.3L	231.099	320.041	
Laser	KE Carb, EFI	87-89	4 Cyl	1.6L	231.084	320.041	
Laser	KE Carb, EFI	89-90	4 Cyl	1.6L	231.084	320.067	
Laser	KE EFI Turbo, EFI 16V 4x4 Turbo	87-88	4 Cyl	1.6L	231.099	320.041	
Laser	KE EFI Turbo, EFI 16V 4x4 Turbo	88-90	4 Cyl	1.6L	231.099	320.067	
Laser	KF Carb, EFI, EFI 16V	90-91	4 Cyl	1.6L, 1.8L	231.089	320.097	
Laser	KF EFI Turbo	90-91	4 Cyl	1.8L	231.102	320.097	
Laser	KH, TX3 EFI	91-94	4 Cyl	1.6L, 1.8L	231.089	320.097	
Laser	KH TX3 EFI Turbo	91-93	4 Cyl	1.8L	231.084	320.097	
					231.102		

VEHICLE APPLICATION LISTING

FORD Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Laser	KJ EFI	94-96	4 Cyl	1.6L	231.089	320.097	
Laser	KJ EFI	96-98	4 Cyl	1.6L, 1.8L	231.089		
Laser	KJ EFI	94-96	4 Cyl	1.8L	231.089	320.097	
Laser	KN	99-01	4 Cyl	1.6L	231.089		
Laser	KN	99-01	4 Cyl	1.8L	231.089		
Laser	KQ	01-02	4 Cyl	1.6L, 1.8L, 2.0L	231.089		
LTD	FD	83-84	6 Cyl	4.1L	231.106		
LTD	FE	84-88	6 Cyl	4.1L	231.106		
LTD	DA (MPI)	88-91	6 Cyl	3.9L	231.106		
LTD	DC	91-94	6 Cyl, 8 Cyl	4.0L, 5.0L	231.106		
LTD	DF	94-96	6 Cyl, 8 Cyl	4.0L, 5.0L	231.106		
LTD	DL	96-98	6 Cyl, 8 Cyl	4.0L, 5.0L	231.106		
LTD	AU	98-02	6 Cyl, 8 Cyl	4.0L, 5.0L	231.106		
LTD	BA	03-05	6 Cyl, 8 Cyl	4.0L, 5.4L	231.100		
Maverick	(Carb)	88-93	6 Cyl	4.2L	231.116		
Meteor	GA, GB, GC	82-85	4 Cyl	1.5L, 1.6L	231.084		
Meteor	GC	85-87	4 Cyl	1.6L	231.084		
Mondeo	HA, HB, HC	95-98	4 Cyl	2.0L	231.107		
Probe	ST, SU, SV	94-98	V6	2.5L	231.089		
Raider	UV	91-96	4 Cyl	2.6L	231.089		
Spectron	2XLT	84-90	4 Cyl	1.8L, 2.0L	231.107		
Taurus	DN, DP	96-98	V6	3.0L	231.107		
Telstar	AR (Carb), AT(Carb)	83-89	4 Cyl	2.0L	231.084	320.067	
Telstar	AS Inc TX5, Turbo	85-87	4 Cyl	2.0L	231.084	320.067	
Telstar	AT EFI Inc TX5, Turbo	87-89	4 Cyl	2.2L	231.084	320.067	
Telstar	AV, AV EFI-Turbo	90-92	4 Cyl	2.2L	231.089		
Telstar	AX DOHC, AY DOHC	92-96	4 Cyl, 6 Cyl	2.0L, 2.5L	231.089		
Territory	SX TX, SY TX, SY SR, Ghia, Ghia Turbo, SY TS MKII, SY TX MKII, SY MKII GHIA RWD	04-on	6 Cyl	4.0L	231.100		
Trader	0409, 0509	79-89	4 Cyl	2.0L, 3.0L, 3.5L	231.084		
Trader	0711, 0811 Diesel	81-95	4 Cyl	4.1L	231.084		
Trader	0811, 0812, Turbo Diesel	87-92	4 Cyl	3.5L	231.084		
Transit		73-81	6 Cyl	4.1L	231.081		
Transit	VF, VG	96-01	4 Cyl	2.0L	231.107		
Transit	VH, VJ	01-05	4 Cyl	2.3L	231.107		

HOLDEN							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Apollo	JK, JL Carb	89-93	4 Cyl	2.0L	231.102		
Apollo	JK, JL (EFI)	89-91	4 Cyl	2.0L	231.102		
Apollo	JM, JP	93-97	4 Cyl	2.2L	231.104		
Apollo	JM, JP	93-95	6 Cyl	3.0L	231.104		
Astra	LB, LC	84-89	4 Cyl	1.5L, 1.6L	231.087	320.039	
Astra	LD	87-89	4 Cyl	1.6L	231.087	320.039	
Astra	TR	96-98	4 Cyl	1.6L, 1.8L, 2.0L	231.114		
Astra	TS	98-04	4 Cyl	1.8L	231.114		

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HOLDEN Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Astra	AH	04-on	4 Cyl	1.8L	231.114		
Barina	MB, MF, ML	85-91	4 Cyl	1.3L	231.084		
Barina	MH	91-94	4 Cyl	1.3L	231.084		
Barina	SB, Gsi	94-00	4 Cyl	1.2L, 1.4L, 1.6L	231.114		
Barina	XC, Sri, Combo	01-on	4 Cyl	1.4L, 1.6L, 2.0L	231.114		
Calibra	YE, Ecotec, Turbo, YE95 DOHC	91-97	4 Cyl, 6 Cyl	2.0L, 2.5L	231.114		
Camira	JB, JD, JE	82-89	4 Cyl	1.6L, 1.8L, 2.0L	231.087	320.033	
Captiva	CG	06-on	6 Cyl	3.2L			360.015
Captiva Maxx	CG	07-on	6 Cyl	3.2L			360.015
Captiva Diesel	CG (SX, CX, LX)	07-on	4 Cyl	2.0L	231.114		
Colorado	RC	08-on	6 Cyl	3.6L			360.015
Colorado	RC	08-on	4 Cyl	2.4L	231.114		
Commodore	VC, VH	80-81	4 Cyl	1.9L	231.081	320.032	
Commodore	VB, VC, VH, VK EFI	78-86	6 Cyl	2.8L, 3.3L	231.081	320.032	360.004
Commodore	VB, VC, VH, VK EFI	78-86	8 Cyl	3.3L	231.081	320.024	
Commodore	VL, VL Turbo	86-88	6 Cyl	3.0L	231.089		
Commodore	VN, VP, VQ, VR	88-95	6 Cyl, 8 Cyl	3.8L, 5.0L	231.088	320.033	
Commodore	VS, VS Supercharged, Ute	95-00	6 Cyl	3.8L,	231.088	320.033	
Commodore	VS Series II	98-01	8 Cyl	5.0L	213.088	320.033	
Commodore	VT, VT I Supercharged, GTS	90-99	6 Cyl	3.8L,		320.033	
Commodore	VT	90-99	8 Cyl	5.0L	231.088	320.033	
Commodore	VT II	99-00	8 Cyl	GENIII LS1, 5.7L			360.009 for ecu
Commodore	Ute VG, VX, VY,	97-04	6 Cyl, 8 Cyl	3.8L, 5.0L	231.088		
Commodore	VX, VX Supercharged	00-01	6 Cyl	3.8L	231.088		
Commodore	VX	00-01	8 Cyl	5.7L			360.009 for ecu
Commodore	VX II, VX II Supercharged	01-02	6 Cyl	3.8L	231.088		
Commodore	VX II	01-02	8 Cyl	5.7L			360.009 for ecu
Commodore	VX II	02-03	6 Cyl	3.8L	231.088		
Commodore	VX II	02-03	8 Cyl	5.7L			360.009 for ecu
Commodore	VU Ute	01-02	6 Cyl	3.8L	231.088		
Commodore	VU Ute	01-02	8 Cyl	5.7L			360.009 for ecu
Commodore	VZ incl Crewman S, Crewman Cross 6, SV6, Adventra	04-07	6 Cyl	3.6L			360.015 for ecu
Commodore	VZ incl Crewman Cross8, Crewman SS	04-07	8 Cyl	5.7L,6.0L			360.009 for ecu
Commodore	VY, VYII, S/C	02-04	6 Cyl	3.8L	231.088		
Commodore	VY I, VYII, HSV, Crewman SS, Adventra CX8,Adventra LX8, Crewman Cross8	02-06	8 Cyl	5.7L			360.009 for ecu
Commodore	VE	07 on	6 Cyl	3.6L	ECU Data		360.015 for ecu
Commodore	VE	07 on	8 Cyl	6.0L	ECU Data		360.009 for ecu

VEHICLE APPLICATION LISTING

HOLDEN Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Commodore	VE	07 on	8 Cyl	6.0L	ECU Data		360.009 for ecu
Commodore	VE	08-on	8 Cyl	6.2L	ECU Data		360.009 for ecu
Epica	EP - Turbo Diesel	08-on	4 Cyl	2.0L	231.114		
Epica	EP	07-on	6 Cyl	2.0L, 2.5L	231.114		
Gemini	TX, TC, TE, TF, TG	75-85	4 Cyl	1.6L, 1.8L D	231.084	320.047	360.011
Gemini	RB FWD	75-85	4 Cyl	1.6L, 1.8L D	231.084	320.047	360.011
Drover	QB	85-87	4 Cyl	1.3L	231.089	320.038	
Holden	EH, HD, HR, HK, HT	53-68	6 Cyl	All	231.084	320.002	
Holden	HK, HT, HG, HQ	68-76	6 Cyl	All	231.084	320.002	360.004
Holden	HJ, HX, HZ, WB	76-85	8 Cyl	All	231.081	320.003	360.005
Frontera	UES30	98-04	4 Cyl	2.2L	231.114		
Jackaroo	UBS16, UBS17 Petrol, Diesel	85-92	4 Cyl	2.6L	231.084		
Jackaroo	UBS81, UBS521 Turbo Diesel	81-88	4 Cyl	2.2L	231.084		
Jackaroo	UBS55 Turbo Diesel	88-92	4 Cyl	2.8L	231.084		
Jackaroo	UBS69 Turbo Diesel	92-98	4 Cyl	3.1L	231.084		
Jackaroo	UBS73 Turbo Diesel	98-04	4 Cyl	3.0L	231.084		
Monaro	VX, VY, CV6 Supercharged	01-04	6 Cyl	3.8L	231.088	320.032	360.004
Monaro	VY	02-04	8 Cyl	GENIII LS1, 5.7	ECU Data		360.009 for ecu
Monaro	VZ	05-08	8 Cyl	GENIII LS1, 5.7	ECU Data		360.009 for ecu
Nova	LE, LF, EFI	89-94	4 Cyl	1.4L, 1.6L, 1.8L	231.084		
Rodeo	KB25, KB26, KB40, KB41	78-82	4 Cyl	1.4L, 1.6L	231.084	320.032	
Rodeo	KB47, KB48, KB49	83-84	4 Cyl	1.8L, 1.9L, 2.3L	231.084	320.032	
Rodeo	KB43, KB49	85-88	4 Cyl	2.3L	231.084		
Rodeo	TFR54, TFS54	88-93	4 Cyl	2.5L	231.084		
Rodeo	TFR25	98-98	4 Cyl	2.3L	231.084		
Rodeo	TFR26	98-03	4 Cyl	2.2L	231.114		
Rodeo	Diesel	79-82	4 Cyl	2.0L	231.084		
Rodeo	KBD42, KBD43, KBD47	83-88	4 Cyl	2.0L	231.084	320.067	
Rodeo	KBD27, KBD28	83-88	4 Cyl	2.2L	231.084		
Rodeo	Diesel	91-01	4 Cyl	2.8L	231.084	320.042	
Rodeo	RA03	03-on	4 Cyl	3.0L	231.084		
Rodeo	RA	03-06	4 cyl	2.4L	231.114		
Rodeo	RA Turbo Diesel	03-06	4 cyl	3.0L	231.084		
Rodeo	RA	03-06	6 cyl	3.5L	231.086	320.038	
Rodeo	RA	06-08	6 cyl	3.6L			360.015
Rodeo	RA07	07-08	4 Cyl	2.4L	231.114		
Rodeo	RA07	07-08	6 Cyl	3.6L			360.015
Statesman	VQ	90-94	8 Cyl	5.0L	231.088		
Statesman	VR	93-95	6 Cyl, 8 Cyl	3.8L, 5.0L, 5.7L	231.088		
Statesman	VS	95-99	6Cyl, 8Cyl	3.8L, 5.0L, 5.7L	231.088		
Statesman	WH	00-03	6 Cyl	3.8L	231.088		
Statesman (Inc Grange)	WH	99-01	8 Cyl	GENIII LS1, 5.7	231.088		360.009 for ecu
Statesman (Inc Grange)	WH	01-03	8 Cyl	GENIII LS1, 5.7	231.088		
Statesman	WK	03-04	6 Cyl	3.8L	231.088		

VEHICLE APPLICATION LISTING

HOLDEN Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Statesman	WK	03-04	8 Cyl	5.7L	231.088		360.009 for ecu
Statesman	WL	04-06	6 Cyl	3.6L	231.088		360.015
Statesman	WL	04-06	8 Cyl	5.7L	231.088		360.009 for ecu
Statesman	WL	04-06	8 Cyl	6.0L	231.088		360.009 for ecu
Statesman	WM	07-08	6 Cyl	3.6L	231.088		360.015
Statesman	WM	07-on	8 Cyl	6.0L, 6.2L	231.088		360.009 for ecu
Suburban	FK1	01-02	8 Cyl	5.7L			
Sunbird	LX, UC	76-80	4 Cyl	1.9L	231.081	320.004	
Tigra	XC	05-on	4 Cyl	1.8L			
Torana	LH, LX	74-76	4 Cyl	1.9L	231.087	320.003	
Torana	LC, LH, LJ, LX, UC	69-79	6 Cyl	All	231.081		
Torana	LH, LX	69-79	8 Cyl	All	231.081		360.005
Vectra	JR	97-98	4 Cyl, 6 Cyl	2.0L, 2.5L	231.114		
Vectra	JS	98-00	4 Cyl	2.0L, 2.2L	231.114		
Vectra	JS	98-00	6 Cyl	2.5L	231.114		
Vectra	JS II	00-01	4 Cyl, 6 Cyl	2.2L, 2.6L	231.114		
Vectra	ZC	03-05	4 Cyl, 6 Cyl	2.2L, 3.2L	231.114		
Zafira	TT	00-05	4 Cyl	2.2L	231.114		

HONDA							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Accord	SJD, SJFR	77-78	4 Cyl	1.6L	231.086	320.040	
Civic	ED, EE	87-91	4 Cyl	1.5L	231.086	320.040	
Civic	EG, EH	91-95	4 Cyl	1.5L, 1.6L	231.086	320.040	
Civic	EK4, VTi R	91-95	4 Cyl	1.5L, 1.6L	231.086	320.040	
Concerto	MA EX-I	88-93	4 Cyl	1.6L	231.086	320.040	
Legend	KA7, KA8, KA9	91-96	6 Cyl	2.7L, 3.2L	231.102	320.040	
Legend	KA9	96-05	6 Cyl	3.5L	231.102		
Odyssey	RA1	95-97	4 Cyl	2.2L	231.086	320.040	
Prelude	BA8, BB2	91-96	4 Cyl	2.2L, 2.3L	231.086	320.040	

HYUNDAI							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Accent		00-02	4 Cyl	1.5L	231.089	320.067	
Accent	LC,LS	00-06	4 Cyl	1.6L	231.089		
Accent	MC	06-09	4 Cyl VVT	1.6L	231.089		
Coupe RD, RDII	FX, SX, SFX	96-02	4 Cyl	1.8L, 2.0L	231.089	320.067	
Elantra	XD	00-03	4 Cyl	1.8L, 2.0L	231.089		
Elantra	XD MY04	03-06	4 Cyl	2.0L	231.089		
Elantra Elite	HD	06-on	4 Cyl VVT	2.0L	231.089		
Elantra	Lavita	01-03	4 Cyl	1.8L	231.089		
Excel	X1 (Carb)	86-89	4 Cyl	1.5L	231.089	320.067	
Excel	X2,	90-94	4 Cyl	1.5L	231.089	320.067	
Excel	X3 SOHC	94-98	4 Cyl	1.5L	231.089	320.067	

VEHICLE APPLICATION LISTING

HYUNDAI Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Excel	X3, DOHC	98-00	4 Cyl	1.4L	231.089		
Getz	TB	02-05	4 Cyl	1.5L	231.089	320.067	
Getz	TB	03-05	4 Cyl	1.3L	231.089		
Getz	TB MY06	05-07	4 Cyl	1.4L	231.089		
Getz	TB MY06	05-on	4 Cyl	1.6L	231.089		
Getz	TB SXi	06-on	4 Cyl	1.6L	231.089		
Lantra	KF2, KF3	91-95	4 Cyl	1.6L, 1.8L	231.107	320.038	
Lantra	J2	95-98	4 Cyl	1.8L	231.107	320.038	
Lantra	L3	99-00	4 Cyl	1.8L, 2.0L	231.089	320.067	
Santa - Fe	CM	06-09	4 Cyl Turbo Diesel	2.2L	231.089		
S-Coupe	UE2, UE3	90-91	4 Cyl	1.5L	231.107	320.038	
S-Coupe	UE3, UE4	92-95	4 Cyl	1.5L	231.107	320.038	
S-Coupe	UE3, UE4	92-95	4 Cyl	1.5L	231.089	320.038	
Sonata	AF2, AF3	89-92	4 Cyl	2.4L	231.089	320.067	
Sonata	AF2, AF3	90-93	4 Cyl	2.4L	231.089	320.038	
Sonata	DF2, DF4	93-96	4 Cyl	2.0L	213.107	320.038	320.038
Sonata	DF3, DF4	93-98	6 Cyl	3.0L	231.121	320.038	
Sonata	EF	98-00	4 Cyl	2.0L	231.089	320.067	
Sonata	EF	98-01	6 Cyl	2.5L	231.089	320.067	
Sonata	EF-B	01-05	4 Cyl	2.4L		320.038	
Trajet	GLS Wagon	00-07	6 Cyl	2.7L	231.089		
Tucson	Elite Wagon	04-on	4 Cyl, 6 Cyl	2.0L, 2.7L	231.089		

KIA							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Carens	DOHC Wagon	00-02	4 Cyl	1.8L	231.102		
Carnival	UP	99-06	6 Cyl	2.5L	231.121	320.067	
					231.102		
Credos	GC	98-01	4 Cyl	2.0L	231.102	320.067	
Pregio Van		02-on	4 Cyl	2.7L	231.089	320.067	
Rio	BC	00-on	4 Cyl	1.5L	231.102		
Shuma	FB	99-01	4 Cyl	1.8L	231.102	320.067	
Spectra	5D Hatch	01-04	4 Cyl	1.8L	231.102		
Sportage	JA	96-04	4 Cyl	2.0L	231.102	320.067	

LAND ROVER							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Defender	110 Turbo-Diesel	92-99	4 Cyl	2.5L	231.120		
Defender	90, 110, 130, TD5	99-on	5 Cyl	2.5L	231.116		
Discovery	TDi BF, MF	92-98	4 Cyl	2.5L	231.120		
Freelander	1.8L	98-03	4 Cyl	1.8L	231.115		
Freelander	1.8L, 2.5L	98-03	6 Cyl	2.5L	231.115		
Range Rover	2.4 TD4	89-90	4 Cyl	2.4L	231.120		
Range Rover	SE, HSE, TD6	02-on	6 Cyl	2.6L	231.115		
Range Rover	HSE, Vogue	02-on	8 Cyl	4.4L	231.115		

VEHICLE APPLICATION LISTING

LEXUS							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
ES300	VCV10R	92-96	6 Cyl	3.0L	231.104	320.067	
ES300	MCV20R	96-on	6 Cyl	3.0L	231.104	320.088	
GS300	JZS160R	97-05	6 Cyl	3.0L	231.104		
IS200	GXE10R	99-on	6 Cyl	2.0L	231.104		
LS400	UCF10R, UCF20R	90-00	8 Cyl	4.0L	231.104		
LS430		00-on	8 Cyl	4.3L	231.104		
RX330	MCU38R	03-on	8 Cyl	3.3L	231.104		

MAZDA							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
1.2L - 1.8L,		68-77	4 Cyl	1.5L, 1.6L, 1.8L	231.084		
B1500, B1600	Petrol	70-82	4 Cyl	1.5L, 1.6L, 1.8L	231.084		
B1800	Petrol	70-82	4 Cyl	1.5L, 1.6L, 1.8L	231.084		
B2000	Petrol	82-88	4 Cyl	2.0L	231.084		
B2200	Bravo Incl. MANUAL (Carb)	88-93	4 Cyl	2.2L	231.102		
B2200	Bravo Incl. AUTO	88 -91	4 Cyl	2.2L	231.102		
B2500, B2600	RWD, 4WD, Diesel, Turbo Diesel	96-on	4 Cyl	2.5L, 2.6L	231.102		
B2600 EFI	Bravo, 4WD	90-02	4 Cyl	2.6L	231.084		
Capella		70-78	4 Cyl	1.6L	231.084		
E1300, E1400		78-86	4 Cyl	1.3L, 1.5L	231.084		
E1600		78-86	4 Cyl	1.6L	231.084		
E2000		98-on	4 Cyl	2.0L	231.102		
E2500		97-on	4 Cyl	2.5L	231.102		
121	CD2	76-79	4 Cyl	1.8L	231.084	320.068	
121	DA	87-90	4 Cyl	1.3L	231.102	320.088	
121	DB1031,	90-97	4 Cyl	1.3L	231.102	320.088	
323	FA, BD, BF, BW, 4WD, Turbo	77-89	4 Cyl	1.3L, 1.5L, 1.6L	231.102		
323	BG, BJ, Astina, Protege`	89-04	4 Cyl	1.6L, 1.8L	231.102	320.067	
626	CB2	78-83	4 Cyl	2.0L	231.084	320.041	
626	GC Diesel, GD-Turbo	84-91	4 Cyl	2.0L, 2.2L	231.084	320.041	
626	GV10-Wagon, GE, GF	88-02	4 Cyl	2.0L, 2.2L	231.102	320.067	
626	GE	92-97	6 Cyl	2.5L	231.102	320.067	
808		72-78	4 Cyl	1.3L, 1.6L	231.084		
929	HBSHE	82-87	4 Cyl	2.0L	231.084	320.041	
929	HC10E1, HC10E2	87-91	6 Cyl	3.0L	231.084	320.041	
929	HC10E2 - 4WS	90-96	6 Cyl	3.0L	231.102	320.067	
MPV	LV	93-94	6 Cyl	3.0L	231.084	320.067	
MPV	LV II	94-99	6 Cyl	3.0L	231.084	231.067	
MX5	NA (DOHC)	93-98	4 Cyl	1.8L	231.102	320.067	
MX5	NB (DOHC), Incl Turbo	98-05	4 Cyl	1.8L	231.102	320.067	
MX6	GD Turbo, 2WD, 4WD	87-97	4 Cyl, 6 Cyl	2.0L, 2.2L, 2.5L	231.102	320.067	
MX6	GE10, GE20, 2WD, 4WD	94-97	4 Cyl, 6 Cyl	2.0L, 2.2L, 2.5L	231.102	320.067	
Premacy	CP Wagon	01-03	4 Cyl	1.8L	231.102		
R100		69-71	Rotary Eng		231.084		
RX2, 3, 4, 5		70-79	Rotary Eng	1.1L, 1.3L	231.084		
RX7	SA22 Series 1, 2, 3	79-85	Rotary Eng	1.1L	231.084		
RX7	FC10 IV	86-89	Rotary Eng	1.3L		320.067	

VEHICLE APPLICATION LISTING

MAZDA Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
T2000		81-82	4 Cyl	2.0L	231.089	320.067	
T3500, T4000	Diesel, Turbo	84-00	4 Cyl, 6 Cyl	3.5L, 4.0L	231.084	320.067	
T4100	Diesel	84-91	4 Cyl	4.0L, 4.1L	231.089	320.067	
T4600	Diesel	92-on	4 Cyl	4.6L	231.084	320.067	
Traveller	L, LX, LT, 1800, 2000	86-88	4 Cyl	1.8L	231.089		

EUNOS-MAZDA							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
30X	EC DOHC	96-97	6 Cyl	1.8L	231.102	320.067	
500	CA	92-96	6 Cyl	2.0L	231.102	320.038	
500	CA	96-99	6 Cyl	2.0L	231.102	320.067	
800	TA	94-96	6 Cyl	2.5L	231.089	320.038	
800M	TA	94-96	6 Cyl	2.3L		320.038	
800M	TA3, TA5, TB3	96-00	6 Cyl	2.3L	231.102	320.067	
Millenia		00-02	6 Cyl	2.3L	231.102	320.067	

MERCEDES-BENZ							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
190	E 1.8, E 2.0, E 2.3	82-87	4 Cyl	1.8L, 2.0L, 2.3L	231.087	320.035	360.021
190, 190D	E 1.8, E 2.0, E 2.3	88-93	4 Cyl	1.8L, 2.0L, 2.3L	231.087	320.035	360.021
200D, 220D, 240D, 140, 160	E, CE, TD, TE	74-86	4 Cyl	1.8L, 2.0L, 2.3L	231.087	320.002	360.021

MG							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
MG, MGA		45-62	4 Cyl, 6 Cyl	1.6L, 1.8L	231.083	320.046	
MGB, MGC		61-79	6 Cyl, 8 Cyl	1.8L, 3.0L, 3.5L	231.083	320.046	
MGF	TF	97-on	4 Cyl	1.8L	231.115		

MITSUBISHI							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
3000 GT		92-96	6 Cyl	3.0L	231.102	320.038	
Fuso Canter	FC212, FC432	81-92	4 Cyl	2.6L	230.089	320.067	
Challenger		98-on	6 Cyl	3.0L, 3.5L	230.089	320.067	
Colt	RA, RB, RC	80-84	4 Cyl	1.4L, 1.5L	230.089	320.036	
Colt	RC, RD, RE	84-90	4 Cyl	1.4L, 1.5L	231.102	320.036	
Galant	HG	89-90	4 Cyl	2.0L	231.102	320.038	
L200	MA, MB, MD 4WD	79-86	4 Cyl	2.0L, 2.3L	230.089		
L200	MC, MD	82-86	4 Cyl	1.6L	231.102		
L300 Express	SA, SB, SC, SD, SE 4WD	80-86	4 Cyl	1.6L, 1.8L	231.102		
Starwagon	SJ, 4WD, EFI, Diesel	86-94	4 Cyl	2.0L, 2.4L	231.102		
Starwagon	SF (EFI), SG (EFI), SH(EFI)	86-94	4 Cyl	2.4L	231.102		

VEHICLE APPLICATION LISTING

MITSUBISHI Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Express / Starwagon	SF, SG, SH, SJ, 4WD, EFI, Diesel	86-94	4 Cyl	2.0L, 2.4L	231.102		
Express/ Starwagon	SJ	94-04	4 Cyl	2.0L, 2.4L	231.102	320.038	
Express/ Starwagon	WA, EFI	94-98	4 Cyl, 6 Cyl	2.0L, 2.4L, 3.0L	231.102	320.038	
Lancer	CA, CB, CC	88-96	4 Cyl	1.5L, 1.6L, 1.8L	231.102	320.038	
Lancer	CC	92-96	4 Cyl	1.8L	231.102	320.067	
Lancer	CE, CG	96-04	4 Cyl	1.5L, 1.6L, 1.8L	231.102	320.067	
Magna	TM, TN, TP, TR	85-94	4 Cyl	2.6L	231.084	320.067	
Magna	TM, TN, TP, TR	85-94	6 Cyl	3.0L	231.102	320.067	
Magna	TS Carb, TS EFI	94-97	4 Cyl	2.6L	231.084	320.038	
Magna	TS, EFI	94-97	6 Cyl	3.0L	231.102	320.038	
Magna	TE, TF, EFI	96-97	4 Cyl	2.4L	231.089	320.067	
Magna	TF, EFI	97-99	6 Cyl	3.0L	231.102	320.067	
Magna	TH, TJ	99-03	6 Cyl	3.0L, 3.5L	231.102	320.067	
Magna	TL, TW	03-04	6 Cyl	3.0L	231.102	320.067	
Mirage	CE	96-05	4 Cyl	1.5L	231.089	320.067	
Nimbus	UA, UB	84-87	4 Cyl	2.0L	231.102	320.038	
Nimbus	UC	87-92	4 Cyl	2.0L	231.089	320.038	
Nimbus	UC	87-92	4 Cyl	2.0L	231.102	320.038	
Nimbus	UF	92-98	4 Cyl	2.4L	231.102	320.038	
Nimbus	UG	98-04	4 Cyl	2.4L	231.089	320.067	
Outlander	ZE, LS-XLS	03-04	4 Cyl	2.4L	231.089	320.067	
Pajero	NA, NB, NC, ND	83-87	4 Cyl	2.6L	231.102		
Pajero	ND Auto	86-87	4 Cyl	2.6L	231.102	320.038	
Pajero	NE, NF, NG	87-91	4 Cyl	2.6L	231.102	320.038	
Pajero	NK,	96-00	6 Cyl	3.5L	231.102	320.067	
Pajero	NL	96 -00	6 Cyl	3.0L, 3.5L	231.102	320.067	
Pajero	NJ	93-96	6 Cyl	2.8L	231.102	320.038	
Pajero	NH, Intercooler	91-93	6 Cyl	2.5L	231.102		
Pajero iO	QA	99-03	4 Cyl	1.8L	231.102		
Scorpion	GE	78-79	4 Cyl	2.0L	231.089		
Scorpion	GJ, GK, GL	80-85	4 Cyl	2.6L	231.089		
Sigma	GE, GH, GJ, GK	77-85	4 Cyl	1.6L, 2.0L	231.102		
Sigma	GK, GN	84-87	4 Cyl	1.6L, 2.0L	231.102		
Triton	ME, MF, MG, MH, MJ, Petrol	86-94	4 Cyl	2.6L	231.102		
Triton	ME, MF, MG, MH, MJ, Diesel	86-96	4 Cyl, 6 Cyl	2.5L, 3.0L	231.102		
Triton	MH, MJ, 4WD	90-96	6 Cyl	3.0L	231.102	320.038	
Triton	MK, 4WD	96-05	6 Cyl	3.0L	231.089	320.067	
Verada	KR, KS	91-94	6 Cyl	3.0L	231.102		
Verada	KE, KF, KH, KJ, KL, KW	96-05	6 Cyl	3.0L, 3.5L	231.089		

VEHICLE APPLICATION LISTING

NISSAN							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
120Y	B210	74-79	4 Cyl	1.2L	231.086		
180B, 200B	610, 810	72-81	4 Cyl	1.8L	231.086		
240, 260, 280	C, K, Z, ZX	70-84	6 Cyl	2.4L, 2.6L, 2.8L	231.086		
300ZX	Z31 Turbo	84-89	6 Cyl	3.0L	231.086		
520, 620, 720	RWD, FWD, Petrol, Diesel	71-85	4 Cyl	1.5L, 1.8L, 2.2L, 2.3L	231.086		
Bluebird	Series I, II	81-85	4 Cyl	2.0L	231.089		
Gazelle	S12	84-88	4 Cyl	2.0L	231.086		
Infinity	Q45	93-97	8 Cyl	4.5L	231.093	320.039	
Maxima	J30 SOHC FWD	90-92	6 Cyl	3.0L	231.093		
Maxima	A31 SOHC FWD	93-95	6 Cyl	3.0L	231.093	320.039	
Maxima	A32 DOHC FWD	95-99	6 Cyl	3.0L	231.093	320.096	
Maxima	A33 DOHC FWD	99-03	6 Cyl	3.0L	231.093	320.096	
Micra	K11E	95-97	4 Cyl	1.3L	231.093		
Navara	2X4, 4X4, Petrol, Diesel	86-88	4 Cyl	2.0L, 2.4L	231.086		
Navara	D21 Diesel DI 4WD, RWD	86-98	4 Cyl	2.5L	231.101	320.104	
Navara	D21 RWD	86-95	4 Cyl	2.0L	231.093	320.104	360.029
Navara	D21 Carb 4WD, RWD	86-92	4 Cyl	2.4L	231.093	320.039	360.029
Navara	D22 Diesel RWD, 4WD	97-99	4 Cyl	3.2L	231.093	320.096	
Navara	D22 DIESEL RWD	97-99	4 Cyl	2.7L	231.093	320.096	
Navara	D22 SOHC	97-99	4 Cyl	2.4L	231.093	320.096	360.029
Navara	D21 SOHC 4WD, RWD EFI	92-97	4 Cyl	2.4L	231.093	320.039	360.029
Navara	D21 Diesel DI 4WD, RWD	88-92	4 Cyl	2.5L	231.093	320.039	
Navara	D21 Diesel DI 4WD, RWD	88-97	4 Cyl	2.7L	231.093	320.039	
Navara	D21 SOHC MPFI	92-97	6 Cyl	3.0L		320.039	
Navara	D22 Series II 4WD, RWD	99-01	4 Cyl	2.4L	231.093	320.096	
Navara	D22 Series II Diesel 4WD, RWD	99-01	4 Cyl	3.2L	231.093	320.096	
Navara	D22	99-01	6 Cyl	3.0L		320.096	
Navara	D22 Diesel Turbo	01-on	4 Cyl	3.0L		320.096	
Navara	D22 SOHC	03-06	6 Cyl	3.3L		320.096	
Nomad	GC22	97-92	4 Cyl	2.4L	231.093		
NX/NX-R	B13	91-95	4 Cyl	2.0L	231.093	320.039	
Pathfinder	Carb	86-92	4 Cyl	2.4L	231.093	320.039	360.029
Pathfinder	D21 Carb 4WD MPFi	92-95	6 Cyl	3.0L	231.093		360.029
Pathfinder	R50 Series I	95-98	6 Cyl	3.3L	231.093	320.096	360.029
Pathfinder	R50 Series II	99-05	6 Cyl	3.3L	231.093	320.096	360.029
Patrol	G60, MQ	65-87	6 Cyl	2.8L, 4.0L	231.086		320.039
Patrol	G60, MQ, Turbo	80-87	6 Cyl	3.3L	231.086	320.090	
Patrol	GQ OHV Diesel Series I	87-93	6 Cyl	4.2L	231.093		
Patrol	GQ OHV Diesel, Series I, Series II	88-97	6 Cyl	4.2L	231.093		
Patrol	GQ OHC Carb	88-95	6 Cyl	4.2L	231.093		360.029
Patrol	GQ OHC Carb	92-99	6 Cyl	4.2L	231.093		
Patrol	GQ Series II OHV EFI	92-97	6 Cyl	4.2L	231.093	320.039	360.029
Patrol	GQ Series II SOHC Carb	92-97	6 Cyl	3.0L	231.093		
Patrol	GQ Series II SOHC Turbo Diesel	95-97	6 Cyl	2.8L	231.093	320.039	360.029
Patrol	GU OHV Diesel	99-00	6 Cyl	4.2L	231.093		
Patrol	GU SOHC MPFI	97-00	6 Cyl	4.5L	231.093		
Patrol	GU SOHC Turbo Diesel	98-00	6 Cyl	2.8L	231.093	320.096	360.029
Pintara	R31 Sedan RWD	86-90	4 Cyl	2.0L	231.093	320.096	
Pintara	U12 Sedan FWD	89-92	4 Cyl	2.0L	231.093	320.096	

VEHICLE APPLICATION LISTING

NISSAN Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Pintara	U12 SOHC	89-92	4 Cyl	2.4L	231.093		
Prairie	M10 SOHC Carb	82-86	4 Cyl	1.5L	231.084	320.039	
Pulsar	N10	80-81	4 Cyl	1.4L	231.086		
Pulsar	N12, EXA - ET	83-87	4 Cyl	1.5L	231.102		
Silvia	Imported S12 Turbo	84-88	4 Cyl	1.8L	231.089		
Skyline	C210	78-81	6 Cyl	2.4L	231.086		
Stanza	A10	78-83	4 Cyl	1.6L	231.086		
Terrano II	R20, R20 Turbo Diesel	97-00	4 Cyl	2.4L, 2.7L	231.093		
Urvan	E20, E23	74-82	4 Cyl	1.6L, 2.0L	231.086		
Urvan	E24, Diesel	87-92	4 Cyl	2.7L	231.086		
X Trail	T30 DOHC	01-03	4 Cyl	2.5L		320.096	

PEUGEOT							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
205	Gti SOHC	87-90	4 Cyl	1.9L	231.108		
205	S	90-94	4 Cyl	1.6L	231.108		

PORSCHE							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
924, 924S, 944	+ Turbo	79-89	4 Cyl	2.0L, 2.5L, 2.7L	231.085		
928, 928S		77-85	8 Cyl	4.5L, 4.7L	231.085		

SAAB							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
99		71-73	4 Cyl	1.9L	231.085		
900	EFI	79-88	4 Cyl	2.0L	231.085		

SEAT							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Cordoba	GLX	95-98	4 Cyl	1.8L	231.110		

SUBARU							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Brumby		78-94	4 Cyl	1.6L, 1.8L	231.102	320.043	
DL, GL, Leone		76-95	4 Cyl	1.6L, 1.8L	231.102	320.043	
Fiori		89-92	4 Cyl		231.102		
Forester		97-02	4 Cyl	2.0L	231.102	320.067	
Impreza	LX, GX, AWD	93-98	4 Cyl	1.6L, 1.8L	231.102	320.067	
Impreza	GX, RV, RX	00-on	4 Cyl	2.0L	231.102	320.067	
Impreza	WRX, Turbo	94-on	4 Cyl	2.0L	231.102	320.067	
Liberty	All	91-03	4 Cyl	2.0L, 2.2L, 2.5L	231.102	320.067	
Liberty	BC/BD	89-97	4 Cyl	2.2L	231.102	320.067	
Liberty	BD/BF Turbo	92-93	4 Cyl	2.0L	231.102	320.067	
Liberty	BD/BG	96-00	4 Cyl	2.5L	231.102	320.067	
Liberty		98-on	4 Cyl	2.0L	231.102	320.067	

VEHICLE APPLICATION LISTING

SUBARU Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Liberty		98-on	4 Cyl	2.5L	231.102	320.067	
Outback		96-00	4 Cyl	2.5L	231.102	320.067	
Vortex	XT, Turbo	85-89	4 Cyl	1.8L	231.102	320.043	

SUZUKI							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Sierra	SJ413	84-98	4 Cyl	1.3L	231.089	320.038	
Carry	ST80, ST90	78-85	4 Cyl		231.089	320.068	
Swift	SOHC, GTi, Carb. & EFI, 4WD	84-00	3 Cyl, 4 Cyl	All	231.089	320.038	
Vitara	SOHC, Carb. & EFI	88-98	4 Cyl	1.6L	231.089	320.038	
X90	4X4 EL	96-98	4 Cyl	1.6L	231.089	320.067	

TOYOTA							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
4Runner	YN60, YN63, YN130	84-90	4 Cyl	2.0L, 2.2L	231.089	320.044	
4Runner	RN130R	90-96	4 Cyl	2.4L	231.104	320.044	360.027
4Runner	LN60, LN61, Diesel	84-89	4 Cyl	2.4L, 2.8L	231.084	320.044	
4 Runner	VZN130	90-91	6 Cyl	3.0L			360.027
Camry	SV11, SV20	83-89	4 Cyl	1.8L, 2.0L	231.102	320.044	
Camry	SV21, SV22	87-91	4 Cyl	2.0L	231.102	320.067	
Camry	SDV10, SXV10	93-98	4 Cyl	2.2L	231.104	320.036	
Camry	SXV20, ACV36R	97-on	4 Cyl	2.2L, 2.4L	231.104		
Camry	VZV20, VZV21	88-93	6 Cyl	2.5L	231.102		
Camry	VDV10, MCV20R, MCV36R	93-on	6 Cyl	3.0L	231.104		
Camry Avensis	ACM20R	01-on	4 Cyl	2.0L, 2.4L	231.104		
Camry Vienta	VZV20, VZV21	88-93	6 Cyl	2.5L	231.102		
Camry Vienta	VDV10R, MCV20R	93-00	6 Cyl	3.0L	231.104		
Celica	RA23, RA28, TA22, TA23	71-77	4 Cyl	1.6L, 2.0L	231.089	320.043	
Celica	RA60R, SA63	81-84	4 Cyl	2.0L	231.089	320.044	
Celica	ST184R	89-94	4 Cyl	2.2L	231.102	320.036	
Celica	ST185R	90-92	4 Cyl	2.0L	231.102	320.044	
Celica	ST204R, SX, ZR	94-99	4 Cyl	2.2L	231.104	320.088	
Celica	ST205, GT	94-94	4 Cyl	2.0L	231.089	320.036	
Corolla	KE10	66-70	4 Cyl	1.1L	231.089	320.043	
Corolla	KE20	70-74	4 Cyl	1.2L	231.102	320.043	
Corolla	KE30, KE35, KE36, KE50	74-78	4 Cyl	1.2L	231.102	320.043	
Corolla	KE38, KE55	78-79	4 Cyl	1.3L	231.102	320.043	
Corolla	KE38, KE55, KE70R	78-85	4 Cyl	1.3L	231.102	320.044	
Corolla	AE71, AE80, AE82, DOHC	78-89	4 Cyl	1.3L, 1.6L	231.102		
Corolla	AE90	89-92	4 Cyl	1.4L	231.089		
Corolla	AE92, Carb	89-92	4 Cyl	1.4L	231.084	320.067	
Corolla	AE92, AE92R, EFI, 4WD	89-94	4 Cyl	1.6L	231.084	320.067	
Corolla	AE93	92-94	4 Cyl	1.8L	231.104	320.088	
Corolla	AE95R, 4WD	88-95	4 Cyl	1.6L	231.084	320.067	
Corolla	AE101R, AE102R, AE102X, AE112	94-01	4 Cyl	1.8L	231.104	320.088	
Corolla	ZZE122R, ZZE123, Sportivo	01-on	4 Cyl	1.8L	231.104		
Corona	RT40, RT72, RT80, RT81	64-74	4 Cyl	1.5L, 1.6L, 1.9L	231.084	320.043	
Corona	MX10, MX13, MX22, MX23, RT104	72-79	4 Cyl	2.0L, 2.3L, 2.6L	231.084	320.043	

VEHICLE APPLICATION LISTING

TOYOTA Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Corona	RT104, RT118, XT130	77-83	4 Cyl	2.0L, 2.3L, 2.6L	231.084	320.043	
Corona	RT132	79-82	4 Cyl	2.0L	231.089	320.044	
Corona	RT133	82-83	4 Cyl	2.0L	231.102	320.044	
Cressida	MX73R	84-85	6 Cyl	2.8L	231.084	320.044	
Cressida	MX73R-DOHC	85-88	6 Cyl	2.8L	231.084	320.044	
Cressida	MX83R	90-93	6 Cyl	3.0L	231.084	320.044	
Crown	RS56, MS65, MS83, MS85, MS111	68-80	4Cyl, 6 Cyl	2.0L, 2.8L	231.089	320.043	
Crown	MS112	80-83	6 Cyl	2.8L	231.084	320.044	
Crown	MS123	83-87	6 Cyl	2.8L	231.084	320.044	
Crown	MS125	83-88	6 Cyl	2.8L	231.084	320.044	
Echo	NCP10R, NCP12R, NCP13R	99-on	4 Cyl	1.3L, 1.5L	231.104		
Estima	TCR10W, TCR11W, TCR20W	93-99	4 Cyl	2.4L	231.104	320.036	
Hi-Ace	RH: 10, 11, 15, 16, 20, 30, 32	67-85	4 Cyl	1.5L, 1.6L	231.089	320.043	
Hi-Ace	YH: 50, 51, 53, 60, 61, 63, 71, 73	83-89	4 Cyl	1.8L, 2.0L, 2.2L	231.089	320.044	
Hi-Ace	RZH103, RZH113	89-98	4 Cyl	2.4L	231.104	320.036	
Hi-Ace	RZH103R, RXZH113R, EFI	98-05	4 Cyl	2.4L	231.089	320.036	
Hi-Ace - Diesel	LH: 20, 30, 50, 51, 60, 61, 70, 71	81-89	4 Cyl	2.2L, 2.4L	231.089	320.044	
Hi-Ace - Diesel	LH103R, LH113R, LH125R	89-00	4 Cyl	2.8L	231.084	320.036	
Hi-Ace - Diesel	LHR172R, LHR184R	99-05	4 Cyl	3.0L	231.084	320.036	
Hi-Lux	YN: 55, 56, 57, 58, 65, 67	83-88	4 Cyl	1.6L, 1.8L, 2.0L, 2.2L	231.089	320.044	
Hi-Lux	YN85R	88-97	4 Cyl	1.8L	231.104		
Hi-Lux	RN85R, RN90R, RN105R	90-92	4 Cyl	2.4L	231.102		
Hi-Lux	RN85R, RN90R, RN105R	88-97	4 Cyl	2.4L	231.104		360.027
Hi-Lux	RN106R, RN110	88-97	4 Cyl	2.4L	231.104	320.036	360.027
Hi-Lux	RZN147R, EFI,	97-05	4 Cyl	2.0L, 2.7L	231.104	320.036	
Hi-Lux	VZN167R, VZN172R	01-05	6 Cyl	3.4L	231.104	320.036	
Hi-Lux - Diesel	All 2.2L engines	78-83	4 Cyl	2.2L	231.089	320.036	
Hi-Lux - Diesel	All 2.4L engines	83-91	4 Cyl	2.4L	231.084	320.044	
Hi-Lux - Diesel	LN86R, LN106R, LN 107R	88-97	4 Cyl	2.8L	231.084	320.044	
Hi-Lux - Diesel	LN147R, LN167R, LN172R	97-05	4 Cyl	3.0L	231.084	320.044	
Kluger	MCU28R	03-on	6 Cyl	3.3L	231.104		
Landcruiser	FJ: 40, 45, 55, FJ60	79-82	6 Cyl	3.0L	231.089	320.043	360.027
Landcruiser	FJ: 40, 45, 55, FJ60	83-84	6 Cyl	3.0L	231.089	320.043	360.028
Landcruiser - Petrol	FJ60	80-84	6 Cyl	4.2L			360.027
Landcruiser - Diesel	HJ60 Diesel	81	6 Cyl	4.0L			360.027
Landcruiser - Diesel	BJ60 Diesel	91-87	6 Cyl	3.4L			360.027
Landcruiser	FJ62	84-90	6 Cyl	4.0L	320.067	320.044	360.028
Landcruiser	FJ70,FJ73, FJ80	84-91	6 Cyl	4.0L	231.084	320.044	360.028
Landcruiser	FZJ80R	92-98	6 Cyl	4.5L		320.036	360.028
Landcruiser	UZJ100R	00-on	8 Cyl	4.7L	231.104	320.088	
Landcruiser	UZJ100	04-05					360.026
Landcruiser	HZJ75RV	90-91	6 Cyl	4.2L			360.028
70 Series							
Landcruiser	HZJ78R, HZJ79R	04-on	6 Cyl	4.2L, 4.2LT			360.025
78 Series							

VEHICLE APPLICATION LISTING

TOYOTA Continued							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
Landcruiser GXL 80 Series	FZJ80, HZJ80, HDJ80	95-98	6 Cyl	4.5L, 4.2L, 4.2LDT		320.094	
Landcruiser 100 Series	FZJ105,	98-07	6 Cyl	4.5L		320.094	
Landcruiser 100 Series	HZJ105 Diesel	98-07	6 Cyl	4.2L		320.094	360.025
Landcruiser Prado	RZJ95R, RZJ120R	96-04	4 Cyl	2.7L	231.104	320.088	
Landcruiser Prado	VZJ95R, GRJ120R	99-04	6 Cyl	3.4L, 4.0L	231.104		
Landcruiser Prado	KZJ95R, KZJ120R	99-04	6 Cyl	3.4L, 4.0L	231.104		
Landcruiser Turbo Diesel	VDJ76R	07-on	8 Cyl	4.5L			360.030
Landcruiser Turbo Diesel	VDJ78R/VDJ79R	07-on	8 Cyl	4.5L	231.104		360.030
Landcruiser	UZJ200/VDJ200	07-on	8 Cyl	4.7L, 4.5LTD			360.026
Lexen	VN I	89-90	6 Cyl	3.8L	231.088		
Lexen	VN II	90-91	6 Cyl	3.8L	231.088	320.033	
Lexen	VP	91-93	6 Cyl	3.8L	231.088	320.033	
Lexen	VR	93-95	6 Cyl	3.8L	231.088	320.033	
Lexen	VS	95-97	6 Cyl	3.8L	231.088		
Light Ace	KM20, KM36	80-92	4 Cyl	1.3L, 1.5L	231.102	320.044	
Light Ace	YM21, YM30, YM40, YM41	84-88	4 Cyl	1.8L, 2.0L	231.102	320.044	
Light Ace Diesel	1C engines	83-92	4 Cyl	1.8L	231.084	320.044	
MR2	SW20R	90-94	4 Cyl	2.0L	231.102	320.044	
MR2	SW20R	95-99	4 Cyl	2.0L	231.102	320.036	
MR2	ZZW30R	00-on	4 Cyl	2.0L	231.104		
Paseo	EL44R, EL54R	91-95	4 Cyl	1.5L	231.104	320.067	
Paseo	EL44R, EL54R	95-99	4 Cyl	1.5L	231.104	320.088	
Prius	NHW11R, NHW20R	01-on	4 Cyl	1.5L	231.104		
RAV4	SX10R, SXA11R	94-00	4 Cyl	2.0L	231.104	320.036	
RAV4	ACA20R, ACA21R, ACA22R, ACA23R	94-00	4 Cyl	2.0L, 2.4L	231.104		
Soarer	JZZ30, JZZ31	91-00	6 Cyl	2.5L, 3.0L	231.104		
Soarer	UZZ30, UZZ31, UZZ32	91-00	8 Cyl	2.5L, 3.0L, 4.0L	231.104		
Spacia	YR22R	93-98	4 Cyl	2.2L	231.104	320.036	
Spacia	SR40R	98-01	4 Cyl	2.0L	231.104		
Starlet	EP91R	96-99	4 Cyl	1.3L	231.104	320.067	
Tarago	YR20	83-84	4 Cyl	1.8L	231.089	320.044	
Tarago	ACR30R	00-on	4 Cyl	2.4L	231.104	320.036	
Tarago - Diesel	CR21	83-88	4 Cyl	2.0L	231.084	320.044	
Tarago	TCR10R, TCR11R	90-00	4 Cyl	2.4L	231.104	320.036	
Tarago	TCR20R, TCR21R	90-03	4 Cyl	2.4L	231.102	320.044	
Toyo Ace - Diesel	LY30, LY31	82-85	4 Cyl	2.2L, 2.4L	231.089	320.044	

VEHICLE APPLICATION LISTING

VOLVO							
Make/Series	Model	Year	Engine	Capacity	Oil Switch	Temp Sender	Pressure Sender
240, 242, 244, 245		81-83	4 Cyl	2.3L	231.113		
360, 740	incl.Turbo	84-91	4 Cyl	2.0L, 2.3L	231.113		
850	incl.Turbo	92-97	4 Cyl	2.3L, 2.5L	231.113		
940, 960		90-97	4 Cyl, 6 Cyl	2.3L, 2.5L	231.113		
C70		99-04	5 Cyl	2.3L, 2.5L	231.113		
S40, V40	incl.Turbo	97-04	4 Cyl	1.8L	231.104		
S40, V40	incl.Turbo	97-04	4 Cyl	2.0L	231.113		
S60, S60R		02-04	5 Cyl	2.3L, 2.4L	231.113		
S70, V70	incl.Turbo	97-03	5 Cyl	2.3L, 2.4L	231.113		
S70R	Turbo	03-04	5 Cyl	2.3L	231.113		
S80	TS95, TS97	98-03	6 Cyl	2.9L	231.113		
S90, V90		97-98	6 Cyl	2.9L	231.113		
XC70, XC90		03-on	6 Cyl	2.9L	231.113		

Note: All care has been taken in preparing and compiling this senders' application list, although if errors are detected, please report them by phone (03) 9468 1151 or fax (03) 9468 1502 to VDO, Customer Service department.

MERCHANDISERS

All merchandisers consist of the following as well as the contents:
8 peg rack, measuring 400 x 400mm, header card, & application list.

FAST MOVERS

Fast Movers	
Part No.	Description
740.012	Mixed sensor & adaptors (most commonly used)

Merchandise Contents		
Part No.	Description	Qty.
231.081	Oil Pressure Switch N/C 25Kpa 1/4"-18NPTF 12/24V	2
231.084	Oil Pressure Switch N/C 21Kpa 1/8"-28BSPT 12/24V	3
231.086	Oil Pressure Switch N/C 21Kpa 1/8"-28BSPT 12/24V	3
231.088	Oil Pressure Switch N/C 21Kpa 1/4"-18NPTF 12/24V	3
320.002	Temperature Sender Water STD. 1/8"-27NPTF	2
320.003	Temperature Sender Water 73-10 OHM 1/8"-27NPTF	2
320.032	Temperature Sender Water 282-40 OHM 1/8"-27NPTF	2
320.053	Adaptor 1/2"-14NPTF TO 1/8"-27NPTF	2



OIL PRESSURE SWITCHES

Oil switch merchandisers have 8 of the fastest moving numbers.

Oil Pressure Switches	
Part No.	Description
740.007	Oil Pressure Switch Merchandiser

Merchandise Contents		
Part No.	Description	Qty.
231.081	Oil Pressure Switch N/C 25Kpa 1/4"-18NPTF 12/24V	3
231.082	Oil Pressure Switch N/C 21Kpa 1/8"-27NPTF 12/24V	2
231.083	Oil Pressure Switch N/C 55Kpa 1/8"-27NPTF 12/24V	2
231.084	Oil Pressure Switch N/C 21Kpa 1/8"-28BSPT 12/24V	3
231.086	Oil Pressure Switch N/C 21Kpa 1/8"-28BSPT 12/24V	3
231.087	Oil Pressure Switch N/C 21Kpa M14 x 1.5 12/24V	2
231.088	Oil Pressure Switch N/C 21Kpa 1/4"-18NPTF 12/24V	3
231.089	Oil Pressure Switch N/C 21Kpa 1/8"-28BSPT 12/24V	2



WATER TEMPERATURE SWITCHES

Temperature switch merchandiser has 6 of the fastest moving numbers.

Water Temperature Switches	
Part No.	Description
740.003	Temperature Switch Merchandiser

Merchandise Contents		
Part No.	Description	Qty.
230.045	Temperature Switch N/O 96°C 1/8"-27NPTF	4
230.046	Temperature Switch N/O 90°C M10x1.5	1
232.011/005/017D	Temperature Switch N/O 145°C M10x1.5	4
230.048	Temperature Switch N/O 170°C M10x1.5	1
230.051	Temperature Switch N/O 95°C 1/2"-14NPTF	1



OIL PRESSURE SENDERS

Oil sender merchandisers have 8 of the fastest moving numbers.



Oil Pressure Senders

Part No.	Description
740.009	Oil Pressure Sender Merchandiser

Merchandiser Contents

Part No.	Description	Qty.
360.001	Oil Pressure Sender 10-180 OHM 500Kpa 1/8"27NPTF	2
360.002	Oil Pressure Sender 10-180 OHM 1000Kpa 1/8"27NPTF	2
360.003	Oil Pressure Sender 73-10 OHM 700Kpa 1/4"18NPTF	2
360.004	Oil Pressure Sender 10-180 OHM 500Kpa 1/4"18NPTF	2
360.005	Oil Pressure Sender 73-10 OHM 500Kpa 1/4"18NPTF	1
360.013	Oil Pressure Sender 10-180 OHM 700Kpa 1/4"18NPTF	1
360.014	Oil Pressure Sender 10-180 OHM 600Kpa 1/8"27NPTF	1
360081030015C	Oil Pressure Sender 10-180 OHM 1000Kpa 1/8"27NPTF	1

WATER TEMPERATURE SENDERS

Temperature sender merchandisers have 8 of the fastest moving numbers.



Oil Pressure Senders

Part No.	Description
740.009	Water Temperature Sender Merchandiser

Merchandiser Contents

Part No.	Description	Qty.
320.002	Temperature Sender Water STD. 1/8"-27NPTF	2
320.003	Temperature Sender Water 73-10 OHM 1/8"-27NPTF	2
320.011	Temperature Sender Water STD. 1/8"-27NPTF Short	2
320.032	Temperature Sender Water 282-40 OHM 1/8"-27NPTF	2
320.033	Temperature Sender Water 282-40 OHM 1/8"-27 NPTF	2
320.043	Temperature Sender Water 184-17 OHM M16x1.5	2
320.044	Temperature Sender Water 313-22 OHM M16x1.5	2
320.067	Temperature Sender Water 232-22 OHM M8x0.75	2

T-PIECE & ADAPTORS

T-piece and Adaptor merchandiser have 4 of each fast moving adaptors and T-piece.



Oil Pressure Senders

Part No.	Description
740.011	T-Piece & Adaptor Merchandiser

Merchandiser Contents

Part No.	Description	Qty.
230.031	T-Piece 1/8"-27NPTF(M&F)-1/8"-27NPTF	2
230.032	T-Piece 1/4"-18NPTF(M&F)-1/8"-27NPTF	2
230.035	T-Piece M14x1.5 (M&F) -1/8"-27NPTF	2
230.036	T-Piece 1/8" -28BSPT(M&F) -1/8"-27NPTF	2
320.050	Adaptor 1/4" -18NPTF TO 1/8"-27NPTF	3
320.051	Adaptor 3/8"-18NPTF TO 1/8"-27NPTF	3
320.053	Adaptor 1/2"-14NPTF TO 1/8"-27NPTF	3
320.055	Adaptor M16x1.5 TO 1/8"-27NPTF	1

PRESSURE SENDERS & SWITCHES

Pressure Sender - Oil / Air				Single Station	
Part No.	Range Bar (Psi)	Thread Size	Switch Point Bar (Psi)	Picture	Ohms Range
360081032025C	0 - 2 Bar (30)	1/8"-27NPTF	---	B	10 - 180
360081032011C	0 - 2 Bar (30)	M 12x1.5	---	B	10 - 180

Pressure Sender - Oil / Air				Single Station	
Part No.	Range Bar (Psi)	Thread Size	Switch Point Bar (Psi)	Picture	Ohms Range
360.001	0 - 5 Bar (75)	1/8"-27NPTF	---	A	10 - 180
360.004	0 - 5 Bar (75)	1/4"-18NPTF	---	A	10 - 180
360.016	0 - 5 Bar (75)	1/8"-28BSPT	---	A	10 - 180
360.018	0 - 5 Bar (75)	1/8"-27NPTF	---		
360081032001C	0 - 5 Bar (75)	1/8"-27NPTF	---	B	10 - 180
360081032002C	0 - 5 Bar (75)	M10x1.0	---	B	10 - 180

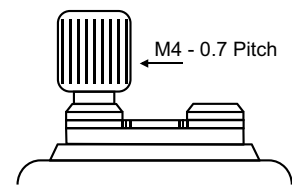
Pressure Sender & Switch - Oil / Air				Single Station	
Part No.	Range Bar (Psi)	Thread Size	Switch Point Bar (Psi)	Picture	Ohms Range
360081030001K	0 - 5 Bar (75)	M10x1.0	0.25 Bar (3.5)	C	10 - 180
360081030002K	0 - 5 Bar (75)	M10x1.0	0.5 Bar (7)	C	10 - 180
360081030028K	0 - 5 Bar (75)	M14x1.5	0.5 Bar (7)	C	10 - 180
360081030049K	0 - 5 Bar (75)	1/8"-27NPTF	0.5 Bar (7)	C	10 - 180
360081030014C	0 - 5 Bar (75)	M10x1.0	0.6 bar (8.5)	C	10 - 180
360081030010C	0 - 5 Bar (75)	1/8"-27NPTF	1.4 Bar (11.5)	C	10 - 180
360081039002C	0 - 5 Bar (75)	1/8"-27NPTF	11.5 Psi	D	10 - 180
360081039004C	0 - 5 Bar (75)	1/8"-27NPTF	10 Psi	D	10 - 180

Pressure Sender & Switch - Oil / Air				Single Station	
Part No.	Range Bar (Psi)	Thread Size	Switch Point Bar (Psi)	Picture	Ohms Range
360081030009K	0 - 10 Bar (150)	M10x1.0	0.5 Bar (7)	C	10 - 180
360081030022C	0 - 10 Bar (150)	M12x1.5	0.5 Bar (7)	C	10 - 180
360081030052C	0 - 10 Bar (150)	1/8"-27NPTF	0.5 Bar (7)	C	10 - 180
360081030039C	0 - 10 Bar (150)	M10x1.0	0.75 Bar (10.7)	C	10 - 180
360081030015C	0 - 10 Bar (150)	1/8"-27NPTF	0.8 Bar (11.5)	C	10 - 180
360081030017C	0 - 10 Bar (150)	M10x1.0	0.9 Bar (12)	C	10 - 180
360081039003	0 - 10 Bar (150)	1/8"-27NPTF	0.8 Bar (11.5)	D	10 - 180

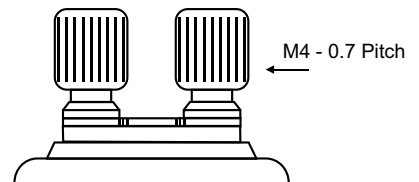
Pressure Sender - Oil / Air				Single Station	
Part No.	Range Bar (Psi)	Thread Size	Switch Point Bar (Psi)	Picture	Ohms Range
360.017	0 - 6 Bar (85)	1/8"-27NPTF	---		10 - 180
360081038008C	0 - 8 Bar (120)	1/8"-27NPTF	---		10 - 180
360081032014C	0 - 10 Bar (150)	1/8"-27NPTF	---	B	10 - 180
360081038003C	0 - 25 Bar (360)	1/8"-27NPTF	---	B	10 - 180
360.086	0 - 7 Bar (100)	1/8"-27NPTF	---		10 - 184
360.002	0 - 10 Bar (145)	1/8"-27NPTF	---		10 - 184
360.019	0 - 10 Bar (145)	1/8"-27NPTF	---		10 - 184

Pressure Sender - Oil / Air				Dual Station	
Part No.	Range Bar (Psi)	Thread Size	Switch Point Bar (Psi)	Picture	Ohms Range
362081001001K	0 - 5 Bar (75)	1/8"-27NPTF	---	B	5 - 90
362081001002K	0 - 10 Bar (150)	1/8"-27NPTF	---	B	5 - 90
362081003002K	0 - 10 Bar (150)	1/8"-27NPTF	---	A	5 - 90
362081002001K	0 - 25 Bar (350)	1/8"-27NPTF	---	B	5 - 90
362081004001C	0 - 25 Bar (350)	1/8"-27NPTF	---	A	5 - 90

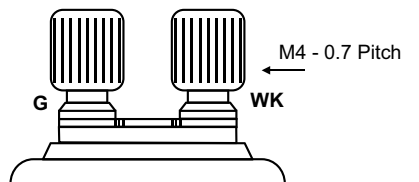
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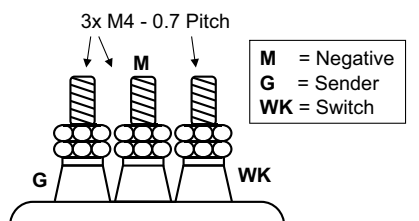
B



C



D



PRESSURE SWITCHES



231.081



231.082



231.083



231.085



231.086



231.087



231.088

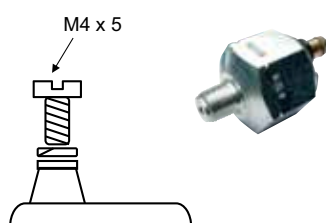


231.089

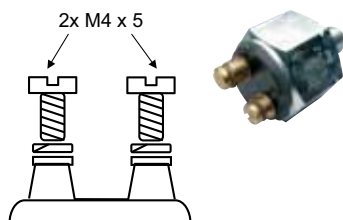
Pressure Switches - Light Duty

Part No.	Range	Thread Size	Terminals Contact	Switch
231.081	25Kpa	1/4"-18NPTF	button	N/C
231.082	21Kpa	1/8"-27NPTF	spade	N/C
231.083	55Kpa	1/8"-27NPTF	button	N/C
231.084	21Kpa	1/8"-28BSPT	button	N/C
231.085	25Kpa	M10x1.0mm	spade	N/C
231.086	21Kpa	1/8"-28BSPT	bullet	N/C
231.087	21Kpa	M14x1.5mm	spade	N/C
231.088	21Kpa	1/4"-18NPT	3 terminals	N/C
231.089	21Kpa	1/8"-28BSPT	spade	N/C

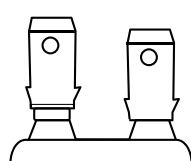
M



N



O



Pressure Switches - Heavy Duty

Part No.	Switch Point Bar (Psi)	Thread Size	Terminals Contact	Picture	Switch
230112005006	0.5 Bar (7) Fixed	1/8"-27NPTF	Screw x 2	N	N/C
			Insulated Return		
230.044	0.5 Bar (7) Fixed	1/8"-27NPTF	Screw x 2	N	N/C
			Insulated Return		
230213002004	4.5 Bar (64) Fixed	M10 x 1	Screw x 2	N	N/C
			Insulated Return		
230213002001	7.5 Bar (64) Fixed	1/8"-27NPTF	Screw x 2	N	N/C
			Insulated Return		
230.041	0.7 Bar (10) Fixed	1/8"-27NPTF	Screw x 1	M	N/C
			Earth Return		
230.043	0.7 Bar (10) Fixed	1/8"-27NPTF	Screw x 1	M	N/O
			Earth Return		
230.701	1.05 Bar (15) Fixed	1/8"-27NPTF	Screw x 2	N	N/C
			Insulated Return		
230.050	0.5 Bar (7) Fixed	1/8"-27NPTF	Screw x 2	N	N/O
			Insulated Return		
230.990	7 - 25 Psi Adjustable	1/8"-27NPTF	Screw x 2	O	N/C
			Insulated Return		
230.993	15 - 150 Psi Adjustable	1/8"-27NPTF	Screw x 2	O	N/C
			Insulated Return		

OIL PRESSURE SENDER SPECIFICATIONS

Oil Pressure Sender Specifications

Part No.	Range	Ohms	Thread	Body Type
360.001	500 Kpa	10-180	1/8" - 27 NPTF	F
360.002	1000 Kpa	10-199	1/8" - 27 NPTF	F
360.003	700 Kpa	73-10	1/4" - 18 NPTF	F
360.004	500 Kpa	10-180	1/4" - 18 NPTF	G
360.005	500 Kpa	73-13	1/4" - 18 NPTF	G
360.006	600 Kpa	292-39	1/8" - 28 BSPT	F
360.020*	600 Kpa	10-180	1/8" - 27 NPTF	
360.008	800 Kpa	0-90	1/8" - 27 NPTF	K
360.010	500 Kpa	0-88	1/8" - 27 NPTF	K
360.013	700 Kpa	20-183	1/4" x 18 NPTF	G
360.014	600 Kpa	10-184	1/8" - 27 NPTF	F
360.016	500 Kpa	10-180	1/8" - 28 BSPT	G
360.017	600 Kpa/ 7 psi	10-180	1/8" - 28 BSPT	J
360.018	500 Kpa	10-183	1/8" - 27 NPTF	G
360.019	1000 Kpa	10-199	1/8" - 27 NPTF	K
360.020	600 Kpa	10-184	1/8"-27 NPTF	K
360.031	500 Kpa/ 7 psi	10-180	1/8"-27 NPTF	B
360.041	1000 Kpa	110-7	1/8" - 28 BSPT	F
360.042	800 Kpa	10-180	1/8" - 28 BSPT	D
360.008*	800 Kpa	0-90	1/8" - 27 NPTF	
360.086	100 psi	10-180	1/8" - 28 BSPT	K
360.406	400 psi	10-180	1/8" - 28 BSPT	K

For connector types, refer page 80.

Note: Kpa/psi = Switch Point
Use 360.020 sender with 320.057 adaptor
Use 360.008 sender with 320.050 adaptor

OIL LINE KITS and related components

Suitable for mechanical pressure gauges.

Oil Line Kits & Accessories

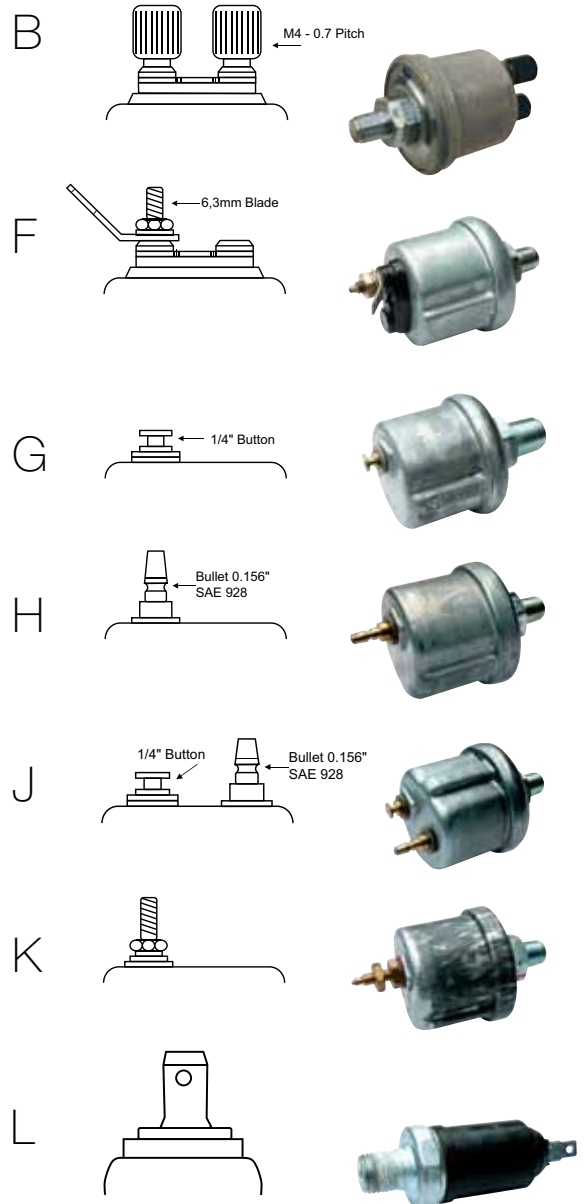
Part No.	Description	Size
230.008	Nut and cone for 3/16" PVC	Tubing
230.025	Adaptor, nut and cone for gauge	1/8"-27NPTF
230.024	Adaptor for oil line kit	1/8"-27NPTF
230.012	Oil line kit 1.8m	
230.013	Oil line kit 5.0m	

Note: An oil line kit consists of a length (1.6 or 5.m) of 3/6" PVC tubing and the engine side fitting 230.024

Accessories

Part No.	Description	Note
180.059	Thermowell 1/8"-27NPTF	Suits adaptors #320.xxx

Note: Refer page 80 for adaptors.



Oil line kit 230.012



Thermowell 180.059

PRESSURE SWITCHES for a range of applications

The VDO Pressure Switches are robust, compact and designed to operate in harsh environments at various pressures and in extended duty applications.

Because of its special internal design, this switch can tolerate high pressure spikes inherent in many pressure systems. The switch is factory calibrated but in the case that adjustment is needed in the field, the switch offers an adjustment screw to facilitate any fine tuning required within the given set point range. The standard polyimide diaphragm (Kapton), makes it compatible with many gases, oils, jet fuels and similar hydrocarbons media. Standard screw type electrical terminals are available. Also included with the switch are screw to blade converters.

The overall ruggedness of the VDO Pressure Switch makes it a popular choice for many OEM and aftermarket applications.

Pressure Switches - Fuel / Oil / Air					
Part No.	Description Pressure Switch Brass	Preset	Range	Thread Type	Terminals
330.101	Press Sw 2 Term N/O 0.5 - 1psi	1psi	0.5 - 1psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.101C	Press Sw 2 Term N/C 0.5 - 1psi	1psi	0.5 - 1psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade
330.102	Press Sw 2 Term N/O 1.1 - 3psi	2psi	1.1 - 3psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.102C	Press Sw 2 Term N/C 1.1 - 3psi	2psi	1.1 - 3psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade
330.104	Press Sw 2 Term N/O 3.1 - 7psi	4psi	3.1 - 7psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.104C	Press Sw 2 Term N/C 3.1 - 7psi	4psi	3.1 - 7psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade
330.110	Press Sw 2 Term N/O 8 - 13psi	10psi	8 - 13psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.110C	Press Sw 2 Term N/C 8 - 13psi	10psi	8 - 13psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade
330.1150	Press Sw 2 Term N/O 14 - 24psi	15psi	14 - 24psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.115C	Press Sw 2 Term N/C 14 - 24psi	15psi	14 - 24psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade
330.135	Press Sw 2 Term N/O 25 - 50psi	35psi	25 - 50psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.135C	Press Sw 2 Term N/C 25 - 50psi	35psi	25 - 50psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade
330.160	Press Sw 2 Term N/O 51 - 90psi	60psi	51 - 90psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.160C	Press Sw 2 Term N/C 51 - 90psi	60psi	51 - 90psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade
330.110	Press Sw 2 Term N/O 91 - 150psi	100psi	91 - 150psi N/O	1/8"-27NPFT	2 x Screw + 2 x Spade
330.1100C	Press Sw 2 Term N/C 91 - 150psi	100psi	91 - 150psi N/C	1/8"-27NPFT	2 x Screw + 2 x Spade



330.102C



430.104



Pressure Switches - universal - Fuel / Oil / Air					
Part No.	Description Pressure Switch Brass	Preset	Range	Thread Type	Terminals
430.101	Press Sw 3 Term NC/NO 0.5 - 1psi	1psi	0.5 - 1psi	1/8"-27NPFT	3 x Screw + 3 x Spade
430.102	Press Sw 3 Term NC/NO 1.1 - 3psi	2psi	1.1 - 3psi	1/8"-27NPFT	3 x Screw + 3 x Spade
430.104	Press Sw 3 Term NC/NO 3.1 - 7psi	4psi	3.1 - 7psi	1/8"-27NPFT	3 x Screw + 3 x Spade
430.110	Press Sw 3 Term NC/NO 8 - 13psi	10psi	8 - 13psi	1/8"-27NPFT	3 x Screw + 3 x Spade
430.115	Press Sw 3 Term NC/NO 14-24 psi	15psi	14 - 24psi	1/8"-27NPFT	3 x Screw + 3 x Spade
430.135	Press Sw 3 Term NC/NO 25-50 psi	35psi	25 - 50psi	1/8"-27NPFT	3 x Screw + 3 x Spade
430.160	Press Sw 3 Term NC/NO 51-90 psi	60psi	51 - 90psi	1/8"-27NPFT	3 x Screw + 3 x Spade
430.110	Press Sw 3 Term NC/NO 91-150 psi	100psi	91 - 150psi	1/8"-27NPFT	3 x Screw + 3 x Spade

TEMPERATURE SWITCHES

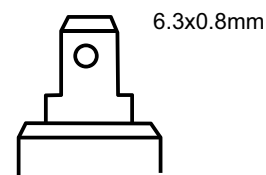
Temp Switch - Normally Open Contact - Single Terminal						3 Watt
Part No.	Switch Point	Thread Size	Term	Body Length	Max Temp	Diam.
232011017148D	35±3°C	M14x1.5	P	29 mm	120	9.7
232011017087D	40±3°C	M14x1.5	T	29 mm	120	10
232011017038D	55±3°C	M14x1.5	P	29 mm	120	10
232011017017D	85±3°C	M14x1.5	P	29 mm	120	10
230.046	90±3°C	M10x1.5	Q	38.5 mm	120	6.9
232011017009D	90±3°C	M14x1.5	P	29 mm	120	10
232011017016D	95±3°C	M14x1.5	P	29 mm	150	10
230.051	95±3°C	1/2-14 NPTF	P	29 mm	120	10
230.045	96±3°C	1/8-27 NPTF	Q	33 mm	120	10
232011017080D	97±3°C	M14x1.5	P	29 mm	120	10
232011017099D	98±3°C	5/8-18 UNF-2A	P	29 mm	120	10
232011017034D	100±3°C	M14x1.5	P	29 mm	160	10
232011017131D	103±3°C	1/2-14 NPTF	P	29 mm	160	10
232.011/017/041	105±3°C	1/2-14 NPTF	P	29 mm	120	10
232011017010D	110±3°C	M14x1.5	P	29 mm	160	10
232011017032D	120±3°C	M14x1.5	P	29 mm	130	10
232011017103D	130±3°C	M14x1.5	P	29 mm	150	10
232011017004D	140±10°C	M14x1.5	P	29 mm	150	10
232011005027D	150±5°C	M10x1.5	R	38.5 mm	200	6.9
232011005017D	150±5°C	M10x1.5	Q	38.5 mm	200	6.9
232011005004D*	170±5°C	M10x1.5	Q	38.5 mm	220	6.9
232011005030D	185±5°C	M10x1.5	Q	38.5 mm	230	6.9
232011019003D	195±10°C	M10x1.5	Q	38.5 mm	250	6.9

Note: 232011005004D = 230.048

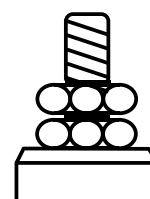
Temp Switch - Normally Open Contact - Dual Terminal						100 Watt
Part No.	Switch Point	Thread Size	Term	Body Length	Max Temp	Diam.
X10232001001	64±3°C	M14x1.5	Y	35.5 mm	110	8
X10232001002	82±3°C	M18x1.5	Y	35.5 mm	110	8
X10232001003	86±3°C	M18x1.5	Y	35.5 mm	110	8
X10232001004	92±3°C	M18x1.5	Y	35.5 mm	110	8
X10232001005	96±3°C	M18x1.5	Y	35.5 mm	110	8
X10232001006	96±3°C	1/2-14 NPTF	Y	43.5 mm	110	8
X10232001007	96±3°C	M14x1.5	Y	35.5 mm	110	8
X10232001008	96±3°C	M22x1.5	Z	35.5 mm	110	8
X10232001009	100±3°C	M18x1.5	Y	35.5 mm	110	8
230.093	105±3°C	1/8-27NPTF	Y	33 mm	120	6.9
X10232001010	105±3°C	M18x1.5	Y	35.5 mm	160	8

Temp Control Switch						100 Watt
Part No.	Switch Point	Thread Size	Term	Body Length	Max Temp	Diam.
230.079	95±3°C	1/2-14 BSP	Y	13 mm	120	12
230.080	102±3°C	1/2-14 BSP	Y	13 mm	120	12

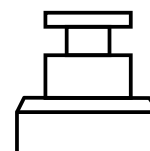
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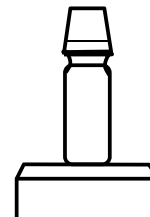
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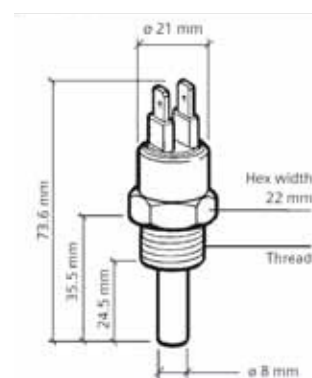
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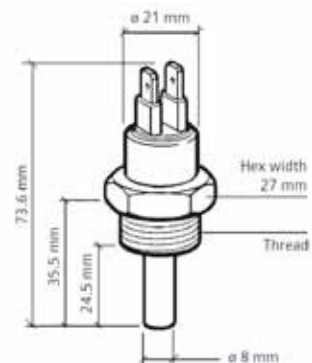
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Y

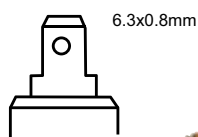


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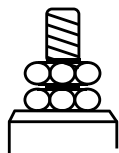


TEMPERATURE SENDERS & SWITCHES

P



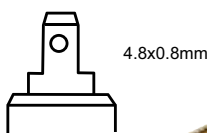
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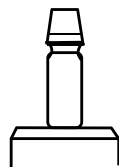
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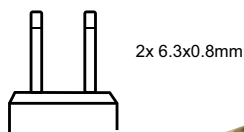
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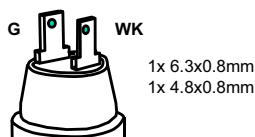
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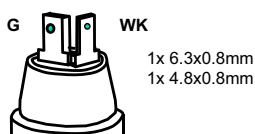
U



V



X



Temp Sender				40 - 120 Deg. C	
Part No.	Switch Point	Thread Size	Term	Body Length	°C > Ohms
323801001006K	-	M14x1.5	P	29mm	90 > 51.2 ± 5.3
323801001040N	-	M16x1.5	P	29mm	90 > 51.2 ± 5.3
323801001022K	-	M18x1.5	P	29mm	90 > 51.2 ± 5.3
323801001010K*	-	1/2-14 NPTF	P	29mm	90 > 51.2 ± 5.3
323801001009N	-	1/4-18 NPTF	P	29mm	90 > 51.2 ± 5.3
320.011	-	1/8-27 NFTP	P	22mm	90 > 51.2 ± 5.3
323801001007N	-	3/8-18 NPTF	P	29mm	90 > 51.2 ± 5.3
323801001008N	-	5/8-18 UNF-3A	P	29mm	90 > 51.2 ± 5.3
320.004	-	M16x1.5	R	29mm	90 > 51.2 ± 5.3
320.002	-	1/8-27 NTPF	R	29mm	90 > 51.2 ± 5.3
320.093	-	1/8-27 NTPF	Q	29mm	90 > 51.2 ± 5.3
323805001001K	-	M14x1.5	U	29mm	90 > 51.2 ± 5.3
323805001015N	-	M18x1.5	U	29mm	90 > 51.2 ± 5.3
323805001004K	-	1/2-14 NPTF	U	29mm	90 > 51.2 ± 5.3
323805001007N	-	1/4-18 NPTF	U	29mm	90 > 51.2 ± 5.3
323805001005N	-	3/8-18 NPTF	U	29mm	90 > 51.2 ± 5.3
323805001002C	-	5/8-18 UNF-3A	U	29mm	90 > 51.2 ± 5.3
325801002002D	-	M18x1.5	P	29mm	90 > 36.5 ± 2.7
325805003001C	-	1/4-18 NPTF	U	29mm	90 > 36.5 ± 2.7
325805003002C	-	5/8-18 UNF-2A	U	29mm	90 > 36.5 ± 2.7

Note: 323801001010K = 320.022

Temp Sender				50 - 150 Deg. C	
Part No.	Switch Point	Thread Size	Term	Body Length	°C > Ohms
323801010001D	-	M10x1.5	U	29mm	120 > 36.5 ± 2.7
323805003001N	-	M14x1.5	U	29mm	90 > 36.5 ± 2.7
323805003002N	-	1/4-18 NPTF	U	29mm	90 > 36.5 ± 2.7

Temp Sender & Switch				40 - 120 Deg. C	
Part No.	Switch Point	Thread Size	Term	Body Length	°C > Ohms
323803001004D	90±3°C	M14x1.5	V	40mm	90 > 51.2 ± 5.3
323803001006D	96±3°C	M14x1.5	V	40mm	90 > 51.2 ± 5.3
323803001008D	110±3°C	M14x1.5	V	40mm	90 > 51.2 ± 5.3
323803001011D	95±3°C	5/8-18 NF-3	V	40mm	90 > 51.2 ± 5.3
323803001002D	98±3°C	5/8-18 NF-3	V	40mm	90 > 51.2 ± 5.3
323803001012D	100±3°C	5/8-18 NF-3	V	40mm	90 > 51.2 ± 5.3
323803001019D	95±3°C	1/2-14 NPTF	V	40mm	90 > 51.2 ± 5.3
323803001013D	106±3°C	M14x1.5	V	40mm	90 > 51.2 ± 5.3
323803004002D	105±3°C	M14x1.5	X	40mm	90 > 51.2 ± 5.3

Temp Sender & Switch - Dual Station (2 Gauges)				40 - 120 Deg. C	
Part No.	Switch Point	Thread Size	Term	Body Length	°C > Ohms
325805003001C	130±3°C	1/4-18NPTF	R	40mm	90 > 25.6 ± 2.65

Temp Sender & Switch				50 - 150 Deg. C	
Part No.	Switch Point	Thread Size	Term	Body Length	°C > Ohms
323805002007D	130±3°C	1/2-14NPTF	X	24mm	90 > 36.5 ± 5.7

Note: Images shown are an example of terminals shape only.

TEMPERATURE SENDER SPECIFICATION

Temp Sender							
Part No.	Range	Ohms (Ω)	Ω @ 100°C	Thread	Body Length	Insulator	Terminal
320.002	40-120°C	287-23	38.6	1/8"-27 NPTF	29.0mm	white	button
320.003	40-120°C	73-10	17.5	1/8"-27 NPTF	29.0mm	blue	button
320.004	40-120°C	287-23	38.6	M16x1.5	29.0mm	white	button
320.006	60-200°C	550-14	148.8	1/8"- 27 NPTF	29.0mm	red	button
320.007	50-150°C	323-18	62.2	M14x1.5	29.0mm	white	spade
320.009	40-120°C	282-40	77.4	5/8"-18 UNF	29.0mm	white	spade
320.010	50-150°C	323-18	62.2	M12x1.5	10.5mm	-	button
320.011	40-120°C	287-23	38.6	1/8"-27 NPTF	22.0mm	yellow	thread
320.012	40-120°C	282-40	77.4	M16x1.5	18.0mm	black	spade
320.016	50-150°C	323-18	62.2	1/2" UNF	29.0mm	white	spade
320.020	60-200°C	550-14	148.8	1/8"-27 NPTF	10.5mm	black	button
320.021	50-150°C	323-18	62.2	1/8"-27 NPTF	29.0mm	yellow	button
320.022	40-120°C	287-23	38.6	1/2"-14 NPTF	29.0mm	white	spade
320.023	50-150°C	323-18	62.2	3/8"16 UNF	29.0mm	yellow	spade
320.024	40-120°C	282-40	77.4	M12x1 .25	23.0mm	black	spade
320.026	40-120°C	323-18	77.4	M16x1.5	23.0mm	black	spade
320.028	50-150°C	323-18	62.2	1/8"-27 NPTF	10.5mm	yellow	button
320.030	-25-40°C	5780-371	0°C = 4082	M10x1.0	50.0mm	black	thread
323803001002D	-25-40°C	5780-371	0°C = 1893	M10x1.0	22.0mm	black	thread
320.032	40-120°C	282-40	77.4	1/8"-27 NPTF	29.0mm	black	button
320.033	40-120°C	282-40	77.4	1/8"-27 NPTF	29.0mm	white	button
323801001006K	40-120°C	287-23	38.6	M14x1.5	29.0mm	white	spade
320.036	40-120°C	287-23	38.6	M16x1.5	29.0mm	black	button
320.038	40-120°C	313-22	41.2	M16x1.5	27.0mm	black	spade
320.039	40-120°C	145-17	31.5	use old nut	17.0mm	black	bullet
320.040	40-120°C	175-20	31.5	M16x1.5	22.0mm	black	bullet
320.041	40-120°C	495-38	78.8	M16x1.5	22.0mm	black	bullet
320.042	40-120°C	395-40	83.2	M8x0.75	22.0mm	black	bullet
320.043	40-120°C	184-17	32.0	M16x1.5	22.0mm	black	spade
320.044	40-120°C	313-22	41.2	M16x1.5	27.0mm	black	spade
320.045	40-120°C	380-30	83.2	5/8"-18 UNF	27.0mm	red	spade
320.046	40-120°C	380-30	54.0	5/8"-18 UNF	29.0mm	red	spade
320.047	40-120°C	353-24	51.9	M16x1.5	24.0mm	black	bullet
320.048	40-120°C	432-30	-	5/8"-18 UNF	-	black	spade
320.049	40-120°C	375-29	-	1/2"-14 NPTF	-	black	spade
320.060	40-120°C	341-24	45.0	1/8"-27 NPTF	20.0mm	black	bullet
320.061	40-120°C	157-24	-	5/8"-18 UNF	-	white	spade
320.062	40-120°C	208-18	31.5	M16x1.5	27.0mm	black	spade
320.065	40-120°C	282-40	75.0	1/8"-27 NPTF	22.0mm	yellow	spade
320.067	40-120°C	232-22	65.9	M8x0.75	22.0mm	black	bullet
320.068	40-120°C	175-20	32.4	M16x1.5	22.0mm	black	bullet
320.092	50-150°C	323-18	62.2	1/8"-27NPTF	29.0mm	green	thread
320.093	40-120°C	287-23	62.2	1/8"-27NPTF	29.0mm	black	thread

Note: Not all the above temperature senders are suitable for the cockpit gauges.
Some temp senders are used in OEM applications.



Sender 320.002



Sender 320.023



Sender 323803001002D



Sender 320.093



Sender 320.028



Sender 320.039

ADAPTORS, brass

Suitable for pressure & temperature senders & switches with 1/8"-27NPTF thread. Mechanical temperature gauges with 1/8"-27NPTF thermowell (180.059). Oil line kits (230.012 & 230.013) for mechanical pressure gauges.



Adaptors Brass

Part No.	Internal Thread	External Thread	Overall Length
320.050	1/8"-27NPTF	1/4"-18NPTF	20mm
320.051	1/8"-27NPTF	3/8"-18NPTF	20mm
320.052	1/8"-27NPTF	5/8"-18UNF	20mm
320.053	1/8"-27NPTF	1/2"-14NPTF	20mm
320.054	1/8"-27NPTF	M14x1.5	20mm
320.055	1/8"-27NPTF	M16x1.5	20mm
320.056	1/8"-27NPTF	M18x1.5	20mm

Adaptors Brass

Part No.	Internal Thread	External Thread	Overall Length
320.058	5/8"-18UNF	1/2"-14NPTF	20mm
320.064	1/4"-18UNF	5/8"-18UNF	17mm

Adaptors Brass

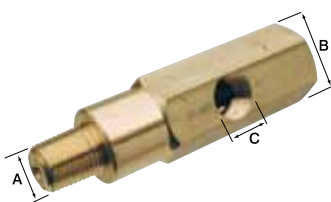
Part No.	Internal Thread	External Thread	Overall Length
180.059	Thermowell	1/8"-27NPTF	20mm
320.053	Adaptor	1/2"-14NPTF to 1/8"-NPT	

Adaptors Stainless Steel

Part No.	Internal Thread	External Thread	Overall Length
320.074	1/8"-27NPTF	1/8"BSPT	
320.075	1/4"-18NPTF	3/8"BSPT	
320.076	1/8"-27NPT	M12x1.25	

T-PIECE ADAPTORS, brass

Suits oil line kits and oil pressure sender units with 1/8"-27 NPTF male thread, while at the same time retaining the existing oil warning light switch.



Adaptors Brass

Part No.	Thread A	Thread B	Thread C	Length
230.031	1/8"-27NPTF	1/8"-27NPTF	1/8"-27NPTF	66mm
230.032	1/4"-18NPTF	1/4"-18NPTF	1/8"-27NPTF	66mm
230.033	M10x1.0	M10x1.0	1/8"-27NPTF	66mm
230.035	M14x1.5	M14x1.5	1/8"-27NPTF	66mm
230.036	1/8"-28BSPT	1/8"-28BSPT	1/8"-27NPTF	66mm

TANK UNIT SENDER ACCESSORIES

Neoprene Rubber Gasket 36373/9A



Welding Flange 22502641141



Flange Mounting Kit N05801432
Suits 220.003 / 220.004 / 220.005
and Tubular T / U Senders



Accessories

Part No.	Description	PCD
36373	Gasket-neoprene rubber	54mm
2251016	Gasket	80mm
22502641141	Welding flange	54mm
115910011401	Welding flange	80mm
N05801432	Flange mounting kit	54mm
2250234	Gasket-cork (dim. as per 36373/9A)	54mm
CTA0200	5-6 hole flange kit	

FUEL LEVEL SENDERS

Sender - Float Arm

Part No.	Range	Depth	Voltage
220.003	10-180 ohm	150 - 535mm adjustable	6 - 24V
220.004	0-90 ohm	150 - 535mm adjustable	6 - 24V
220.005	240-33 ohm	150 - 535mm adjustable	6 - 24V
220.734	10-180 ohm	200mm fixed	6 - 24V

Float Arm Tank Unit - insulated return

Part No.	Range	Depth	Voltage
220.735	10-180 ohm	150 - 600mm	6 - 24V



Adjustable float arm sender 220.003

ARM TYPE FUEL SENDERS

Arm Type Fuel Senders Tank depth range 145 - 400mm

Part No.	Range	Voltage
A2C59510165	Sender with low fuel warning switch	2.5 -180 ohms
A2C59510171	Arm Type Fuel Sender	2.5 -180 ohms
A2C59510166	Sender with low fuel warning switch	240 - 33.5 ohms
A2C59510172	Arm Type Fuel Sender	240 - 33.5 ohms
A2C59510167	Sender with low	2 - 90 ohms
A2C59510173	Arm Type Fuel Sender	2 - 90 ohms
N05801432	Tank Flange Kit incl. balton flange	
CTA0200	Adaptor Kit 6 to 5 Holes	



Arm Type Fuel Sender

REED SWITCH SENDERS

Reed switch senders are better choice than float arm sender.

They can operate in tanks for petrol or diesel, without baffles or walls.

They have a long life in comparison to the variable resistors which are directly exposed to the fuel.

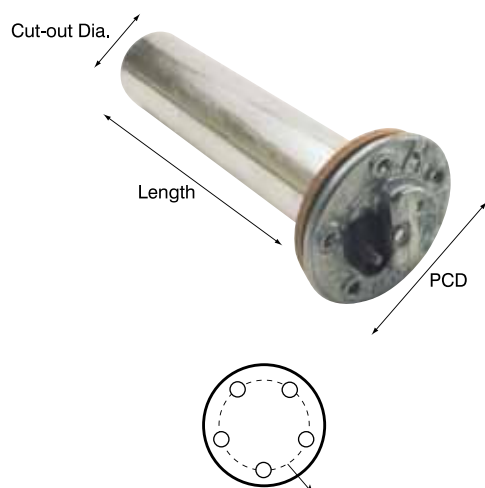
Reed switch senders can also be used in tanks containing water to measure their level. Just for 3- 180 ohms gauges.

Reed Switch Senders PCD 54 mm

Part No.	Range E - F	Voltage
220.150-180	3-180 Ohms	150 mm
220.180-180	3-180 Ohms	180 mm
220.230-180	3-180 Ohms	230 mm
220.250-180	3-180 Ohms	250 mm
220.260-180	3-180 Ohms	260 mm
220.270-180	3-180 Ohms	270 mm
220.300-180	3-180 Ohms	300 mm
220.320-180	3-180 Ohms	320 mm
220.330-180	3-180 Ohms	330 mm
220.350-180	3-180 Ohms	350 mm
220.600-180	3-180 Ohms	600 mm
220.660-180	3-180 Ohms	660 mm
220.900- 180	3-180 Ohms	900 mm



TUBULAR TYPE SENDERS



Note: PCD = Pitch Circle Diameter

Tubular Senders - Fuel PCD 54 mm - Cut-out Dia 41 mm

Part No.	Sender Length	Resistance at Full	Resistance at Empty
224011000015G	150mm	4.5	69
224011000016G	160mm	4.5	74
224011000017G	170mm	4.5	79.5
224011000018G	180mm	3	64
224011000019G	190mm	3	68
224011000020G	200mm	3	68
224011000021G	210mm	3	76
224011000022G	220mm	3	80
224011000023G	230mm	3	84
224011000024G	240mm	3	65.5
224011000025G	250mm	2.5	72
224011000026G	260mm	2.5	72
224011000027G	270mm	2.5	74.5
224011000028G	280mm	2.5	75.5
224011000029G	290mm	2.5	78
224011000030G	300mm	2.5	82.8
224011000031G	310mm	2.5	84
224011000032G	320mm	2.5	69.5
224011000033G	330mm	2.5	72
224011000034G	340mm	2.5	74
224011000035G	350mm	2.5	79.6
224011000036G	360mm	2.5	69
224011000037G	370mm	2.5	71
224011000038G	380mm	2.5	73
224011000039G	390mm	2.5	75
224011000040G	400mm	2.5	74.9
224011000045G	450mm	2.5	84.3
224011000050G	500mm	2.5	75.4
224011000055G	550mm	2.5	77.6
224011000060G	600mm	2.5	85.3
224011000065G	650mm	2.5	82.2
224011000070G	700mm	2	81.6
224011000075G	750mm	2	82
224011000080G	800mm	2	68.5

Tubular Senders - Fuel PCD 80 mm - Cut-out Dia 63 mm

Part No.	Sender Length
X10224009039	596 mm
X10224021002	596 mm
X10224014022	616 mm
X10224009048	641 mm
X10224014002	686 mm
X10224009029	741 mm
X10224009019	781 mm
X10224021004	803 mm
X10224009026	831 mm
X10224021006	846 mm
X10224014003	881 mm
X10224014011	916 mm
X10224009057	946 mm
X10224014015	996 mm
X10224009022	1001 mm
X10224021005	1045 mm
X10224009040	1086 mm
X10224014044	1250 mm
X10224009072	1387 mm



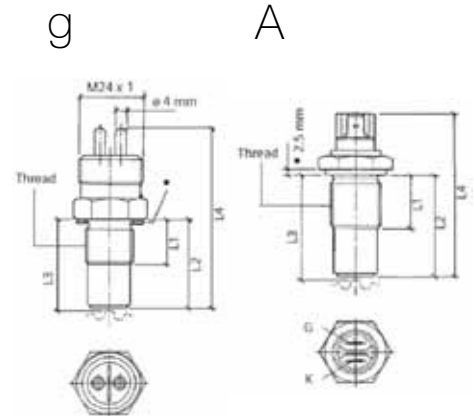
Sender- Tubular X10224014015

RPM SENDERS

Inductive Type - 2-wire set-up

Part No.	Thread Size	L1 mm	L2 mm	L3 mm	L4 mm	Picture
340.007	M18x1.5			25		g
340.008	M18x1.5			44		g
340.009	M18x1.5			84		g
340804007013C	M18x1.5	27	34	35.1 ± 0.1	62	g
340804007004C	3/4-16 UNF-2A	27.5	28.5	29.6 ± 0.1	70	g
340804007011C	M18x1.5	33	34	35.1 ± 0.1	70	g
340804007019C	M18x1.5	18.2	70.7	71.8 ± 0.1	79.7	g
340804005015C	M18x1.5	18	99.1	101.15-100.55	135.6	A

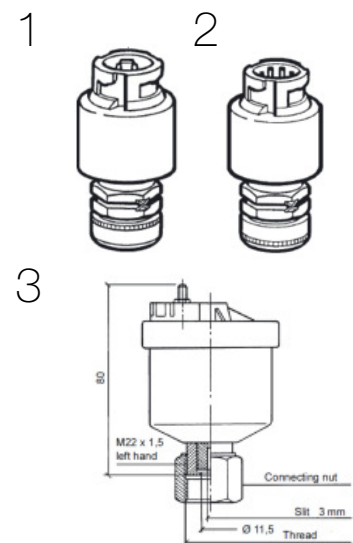
Note: Use twisted pair or shielded cable between inductive sensor and device requiring signal to eliminate possible electrical interference.



Proximity Switch & Hall Effect - Square wave output - 3-wire Bayonet closed style

Part No.	Voltage	Thread	Pic	Type	Imp/Rev	Plug Kit
K46020	12/24V	M22x1.5 L/H male	1	H/E	8	K72221
K46021	12/24V	7/8"-18UNF	1	H/E	8	K72221
K70450	12V	M22x1.5 L/H female	2	H/E	8	K72222
K70451	12V	7/8"18UNF female	2	H/E	8	K72222
340808001004G		7/8" - 18 NS-2A left hand	3	Gen	4	

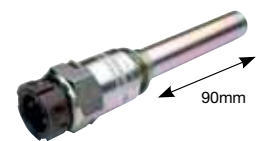
Note: Part numbers supplied without Plug Kit
Nuts to suit are optional
#230.070 7/8"-18UNF - M22x1.5LH
#230.071 M22x1.5LH - 3/4-26UNF



SPEEDOMETER SENDERS

Proximity Senders - 4 Blade Bayonet Type

Part No.	Imp/Rpm	Connection	Length	Voltage
K70452	2 x 8 (180 out of Phase)	M18x1.5	90mm	12V
K70453	2 x 8 (180 out of Phase)	M18x1.5 (Volvo Type)	25mm	12V
340 216 001 024	2 x 8 (180 out of Phase)	M18x1.5 (Volvo Type)	63mm	12V
21590004301	2 x 8 (180 out of Phase)	M18x1.5	25mm	12V



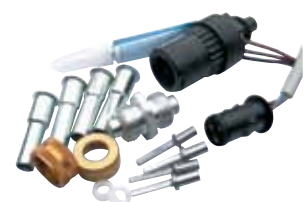
Proximity Sender K70452 (Speed & RPM)

Speedometer Senders

Part No.	Description	Drive Key	Pulses/Rev	Nut Size
340.808	In line suits various vehicles with M22 nut size	3x8mm blade	8	M22 x 1.5mm Inc. 5mm dia lug drive key
340.011	In line suits G.M. U.S.A.	2.7mm square	16	7/8"-18UNF
340.013	Snap fit suits Ford U.S.A. (C4 transmission)		16	Snap fit
340.22M	In line fits most Japanese	2.7mm square	2	M22 x 1.5mm
412.009	Universal cut cable	2.7mm square	6	



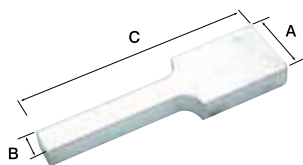
Speed Sensors 340.013 and 340.808



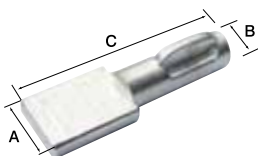
Speed sensor 412.009

DRIVE KEYS

Suitable for tacho and speedo generators, Hall-effect senders etc.



Drive key 230.061



Drive key 230.064



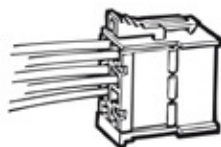
Double sided nut 230.070



Connector K72221



Connector K72222



Connector K70735



Terminals K70524
(One terminal per part number)

Drive Keys

Part No.	Dimension A	Dimension B Diam.	Dimension C
K72103	2.6 x 8mm	2.6mm	26mm
230.061	3.0 x 8mm	3.0mm	28mm
230.076	2.6 x 8mm	3.8mm	27mm
230.062	2.6 x 8mm	3.8mm	26mm
230.063	2.6 x 8mm	4.7mm	26mm
230.064	2.6 x 8mm	5.0mm	26mm
230.065	2.6 x 8mm	5.1mm	30mm
K72113	2.6 x 8mm	5.2mm	26mm

DOUBLE SIDED NUTS

Suitable for ratio boxes, angle drivers, Hall-effect sender units etc. with M22x1.5mm LH male connections.

Double Sided Nuts

Part No.	Description
230.070	M22x1.5mmLH to 7/8"-18UNF
230.071	M22x1.5mmLH to 3/4" x 26UNF

SPEED AND RPM SENDER CONNECTORS

Connectors

Part No.	Description
K72221	3 Spade Pin connector
K72222	4 Spade Pin connector

TACHOGRAPH CONNECTORS

Connectors

Part No.	Description
K70735	White power connector
K70710	Yellow speed connector
K70711	Red RPM connector
K70524	Terminal to suit 1318 connectors

STARTER SWITCHES

Push Button Switch

Part No.	Description	Specification	Size
170.713	Push button N/O	10 amp	15mm hole
170.714	Push button N/C	10 amp	15mm hole

Note: N/O = Normally Open Contact.
N/C = Normally Closed Contact.



Push button switch 170.713

Key Switches

Part No.	Description	Specification
170.706	Brass key switch	Off - On - Start
850.009	Plastic marine key switch with rubber boot	



Brass switch 170.706