


How To Create An Order Code

After selecting the appropriate product model, identify the desired range and the available options, if any, that you require, and build an appropriate order code. The order code consists of a series of numbers and letters which identify the specific characteristics of the unit you select.

Sample Order Code

AP131

 1
 Model
 Order Code
 from
 Product Page

BR

 2
 Range
 Code
 from page
 AP-22

1c, 2a

 3
 Option
 Codes
 from pages
 AP-20, 21

The Order Code has three basic sections:

1. **The first 5 characters** of the Order Code identify the **specific product** and are located directly above the product specifications on each product page. (eg. AP131, BD141).
2. **The next 2 characters** of the Order Code identify the product's **operating range** (pressure, load, etc.). Available ranges for each model are listed in the dimensions section on each product page and on page AP-20. Select an available range and insert its range code (eg. BR, ET) as the next 2 characters of the order code string.
3. **The remaining characters** of the Order Code identify the **options**, if any, which you select. (Note that options and premium options are provided at an additional charge and may increase delivery time). Available options for each model are identified via option codes on each product page. Flip out the back insert (page AP-18) for a description of the options. Insert the option code for each option selected at the end of the order code string.

Order Code Example

AP131BR, 1c, 2c is a Model Z, 100 psi gage pressure transducer, which is temperature compensated from 0° F to 185° F, and has an internal voltage amplifier which provides an output of 0-5VDC.

After building a complete order code string, prepare a purchase order like the example on page AP-23), including the order code and a detailed description of the product and options. Please provide a name and telephone number for both a purchasing and a technical contact at your company for the order. When purchasing sensors and instruments as a system, specify which sensor is to be calibrated with each instrument or each instrument channel.

Special Requirements

If you require assistance in selecting the proper sensor or require options that aren't listed as available, call Customer Service or your local Honeywell Sensotec Sales Representative and be prepared to provide the following minimum information about your application: accuracy requirements; dimensional limitation; environmental conditions including temperature, humidity, or corrosion factors; normal and maximum operating ranges; output requirements; power limitations; cycle rate; and delivery requirements.

Since 1973, we have designed thousands of different transducers. One of these designs is likely to meet your requirements. If not, our engineers will be happy to design a unit to meet your unique requirements. Special modifications are available on some models for large orders. These modifications include special temperature compensated ranges, special internal amplifiers, overload stops, special pressure ports, special electrical terminations, special wetted diaphragm and casing materials, special calibration, explosion proof enclosures, special testing, and extended temperature ranges, to name a few.

Options List

IMPORTANT

Options and premium options are available at an additional charge. Consult the options section of product specification page(s) for information on availability/restrictions. Certain options may affect the performance characteristics on some models.

GENERAL

Temperature Compensated Range

- | | | |
|---------------------------|---------------------------|-----------------------------|
| 1a. 60° to 160° F | 1e. -20° to 200° F | 1i. -65° to 250° F |
| 1b. 30° to 130° F | 1f. 70° to 250° F | 1j. 0° C to 50° C |
| 1c. 0° to 185° F | 1g. 70° to 325° F | 1k. -20° C to 85° C |
| 1d. -20° to 130° F | 1h. 70° to 400° F | 1m. -25° C to 110° C |

Internal Amplifiers

(Also available as In-Line units) – See Internal Amplifier section for details. Note that all internal amplifiers listed below already include a precision internal shunt calibration resistor (except 2-wire amplifiers, option 2k) and have an operating temperature range of 0° F to 185° F.

- 2c. Voltage Amp Vehicle Powered:** 0-5VDC output with 11-28VDC supply at 25ma.
- 2t. Voltage Amp:** 0-10VDC output with 15-28VDC supply.
- 2j. Current Amp:** 4-20ma (3-wire) output with 22-32VDC supply @ 65ma.
- 2k. Current Amp:** 4-20ma (2-wire) output with 9-32 VDC typical supply.
- 2n. (Also 2N) Current amp:** 4-20mA (2-wire) out, 9-28 VDC supply. Intrinsically safe with pots and shunt cal.

For replacement purposes only - not for new designs:

- 2a. Voltage Amp:** 4 wire 0-5VDC output with +/-15VDC @ 45ma. (Used with gage and absolute pressure transducers and compression-only or tension-only load cells.)
- 2b. Bipolar Voltage Amp:** 4 wire +/-5VDC output with +/-15VDC @ 45ma. (Used with differential pressure transducers and tension/compression load cells.)

Internal Amplifier Enhancements

- 3a.** Input/output isolation.
- 3d. (Also 3D) Remote Buffered Shunt Calibration:** Available with all internal amplifiers. Allows user to recalibrate a transducer using the internal relay circuit, thereby removing the effects of cable length in long-cable installations.

Overload Stops

- 4a.** Overload stops.

Pressure Ports

- 5a.** 1/4" - 18 NPT Female
- 5b.** 1/4" - 18 NPT Male
- 5c.** 7/16" - 20 UNF Female (per MS33649-4)
- 5d.** 7/16" - 20 UNF Male (per MS33656E4)
- 5f.** G 1/4 British Pipe Female
- 5g.** G 1/4 Male
- 5h.** 1/8"-27 Female
- 5i.** 1/8"-27 Male
- 5r.** 9/16 - 18 2A Male - SAE straight thread
- 5s.** 9/16 - 18 2A Female - SAE straight thread
- 5t.** G 1/2 Male
- 5u.** 9/16-18 Autoclave F-250-C
- 5w.** VCR Male
- 5z.** VCR Female

Electrical Termination

Connectors and cable attached to transducer.

- 6a.** Bendix PTIH-10-6P – (or equivalent) 6 pin (max. 250° F)
- 6b.*** MS type connector mates with MS3106-14S 6 pin (max. 160° F)
- 6c.** Cannon WK6-325 Series connector 6 pin (max. 160° F). Special Wiring Code.
- 6d.** Microtec DR-4S-4H 4 pin (max. 250° F)
- 6e.** Integral cable: Teflon (-65 to 475° F)
- 6f.** Integral cable: PVC (-20 to 160° F)
- 6g.*** Integral cable: Neoprene (0 to 180° F)
- 6h.** Integral cable: Silicone (-65 to 300° F)
- 6i.*** Integral underwater cable (max. 180° F)
- 6j.** 1/2-14 conduit fitting with 5' of 4 conductor PVC cable (may be used with 6e-i)
- 6m.** DIN 43650
- 6n.** DIN 40050
- 6q.*** Molded Integral Cable: Polyurethane (max. 180°F)
- 6r.** Solder pins (hermetic)
- 6s.** G 1/2 conduit (British Pipe Thread)
- 6t.** Integral Cable with Heyco Spring Strain relief (5 ft.)
- 6v.** Phoenix connector on end of cable.

Shunt Calibration

- 8a.** Precision Internal Resistor (max. 250° F)

Special Calibration

(Subject to available calibration levels)

- 9a.** 10 point (5 up/5 down) 20% increments @ 70° F
- 9b.** 20 point (10 up/10 down) 10% increments @ 70° F
- 9c.** A.S.T.M. E-74 calibration
- 9e.** CE mark

Wetted Diaphragm

- 10a.** 316 Stainless steel
- 10b.** Crucible A-286
- 10c.** Hastelloy-C
- 10d.** Monel K-500
- 10e.** Inconel X-750

* Not available with option 1c, 1e, 1f, 1g, 1h, or 1i.

Bridge Type	11a. Square bridge. 11b. Symmetrical bridge. 11c. Square & symmetrical bridge.	
Bridge Resistance	12a. 1,000 ohm (foil) (max. 400° F) 12b. 5,000 ohm (foil) (max. 250° F)	
Thread Option (Specify M or F)	13a. 1/2"-20 (Load Cell) 13b. 3/4"-16 (Load Cell) 13c. 7/8"-14 (Load Cell) 13d. 1"-14 (Load Cell) 13e. 1-1/2"-12 (Load Cell)	13f. 3/8"-32 UNEF (LVDT body thread) 13g. 1/8" BSP (LVDT body thread) 13h. M-10 (LVDT body thread) 13s. 2-1/2" - 12 13t. 2-1/2" - 8
Potentiometers	14a. No access to pots. 14b. Top access to pots 14c. Side access to pots	
Electrical Connector Orientation	15a. Horizontal Electrical Exit Port Orientation (models RM, RF, RGM, RGH, & RGF) 15b. Vertical Electrical Exit Port Orientation (Models RM, RF, RGM, RGH, & RGF) 15c. Radial Electrical Exit Port Orientation (Models RM, RF, RGM, RGH, & RGF) 15d. Connector on end of cable.	
CIP Flanges	16b. 1.5" Tri-Clover 16c. 2.0" Tri-Clover 16d. 2.5" Tri-Clover 16e. 3.0" Tri-Clover	16f. 1.5" Cherry Burrell 16g. 2.0" Cherry Burrell 16h. 2.5" Cherry Burrell 16i. 3.0" Cherry Burrell
High Line Pressure	DIFFERENTIAL PRESSURE TRANSDUCERS ONLY	
	25a. 2,000 psi line pressure 25b. 3,000 psi line pressure 25c. 5,000 psi line pressure	
O-Ring Seals	26a. Metal	26b. Vi-ton
		26c. Teflon
Special Calibration	LOAD CELLS ONLY <i>Load cells which operate in tension and compression are calibrated in tension only unless one of the following options is specified.</i>	
	30a. Compression only (+) output 30b. Tension and Compression (+,-) output 30c. Compression only (-) output	
	31a. Dual bridge.	
Metric Threads	32a. M3 x 0.5 32b. M4 x 0.7 32c. M5 x 0.8 32d. M6 x 1.0 32e. M10 x 1.0 32f. M10 x 1.5 32g. M12 x 1.5 32h. M12 x 1.75 32i. M20 x 1.5	32j. M24 x 1.5 32k. M27 x 1.5 32l. M36 x 3.0 32m. M39 x 1.5 32n. M52 x 3.0 32p. M64 x 2.0 32q. M90 x 4.0 32r. M14 x 1.5 male 32s. M15 x 1.5 female
Shock & Vibration	44a. Shock and vibration resistance.	
Mounting & Packaging	AMPLIFIERS AND INSTRUMENTS ONLY	
	51a. Rack mount adapter (GM) 19" 51k. Metal enclosure In-Line Amplifiers 51d. Custom front panel or logo	
Inputs Accepted	52a. 0-5VDC 52b. 4-20ma 52c. 0-4.5mv/v to 0-40mv/v	
Interfaces	53d. RS-485 interface 53e. Signature Calibration (Temp. range -20 to 160° F only) (Wiring Code # 40) 53t. T.E.D.S. IEEE 1451.4 Module 53s. Phoenix with signature module cable termination.	
Outputs	56a. 4-20ma 56c. 0-20ma 56e. 0-1VDC	
Special Features	58a. Hi/Lo limits (dual) 58c. Peak/Hold 58d. Track/Hold	
Electrical Connection	59e. Turck connectors (In-Line amplifiers)	
Power	60a. 220VAC 60c. Battery power (12VDC)	

Range Codes

Use these codes to specify the desired range when ordering.

RANGE CODE	GAGE/ABSOLUTE PRESSURE	DIFFERENTIAL PRESSURE	LOAD
AF	N/A	N/A	10 gm.
AH	N/A	N/A	25 gm.
AJ	N/A	N/A	50 gm.
AL	N/A	N/A	150 gm.
AN	.5 psi	.5 psid	250 gm.
AP	1 psi	1 psid	500 gm.
AR	2 psi	2 psid	1000 gm.
AS	2.5 psi	2.5 psid	2.5 lbs.
AT	5 psi	5 psid	5 lbs.
AV	10 psi	10 psid	10 lbs.
BJ	15 psi	15 psid	N/A
BL	25 psi	25 psid	25 lbs.
BM	30 psi	30 psid	30 lbs.
BN	50 psi	50 psid	50 lbs.
BP	75 psi	75 psid	N/A
BR	100 psi	100 psid	100 lbs.
CJ	150 psi	150 psid	N/A
CL	200 psi	200 psid	N/A
CN	250 psi	250 psid	250 lbs.
CP	300 psi	300 psid	N/A
CQ	400 psi	400 psid	400 lbs.
CR	500 psi	500 psid	500 lbs.
CS	600 psi	600 psid	600 lbs.
CT	750 psi	750 psid	N/A
CV	1,000 psi	1,000 psid	1,000 lbs.
DJ	1,500 psi	N/A	N/A
DL	2,000 psi	2,000 psid	2,000 lbs.
DM	2,500 psi	2,500 psid	2,500 lbs.
DN	3,000 psi	3,000 psid	3,000 lbs.
DP	N/A	N/A	4,000 lbs.
DR	5,000 psi	5,000 psid	5,000 lbs.
DS	6,000 psi	6,000 psid	6,000 lbs.
DT	7,500 psi	7,500 psid	7,500 lbs.
DV	10,000 psi	10,000 psid	10,000 lbs.
EJ	15,000 psi	N/A	15,000 lbs.
EL	20,000 psi	N/A	20,000 lbs.
EM	25,000 psi	N/A	25,000 lbs.
EN	30,000 psi	N/A	30,000 lbs.
EP	50,000 psi	N/A	50,000 lbs.
ER	75,000 psi	N/A	75,000 lbs.
ES	60,000 psi	N/A	60,000 lbs.
ET	100,000 psi	N/A	100,000 lbs.
FJ	150,000 psi	N/A	150,000 lbs.
FK	175,000 psi	N/A	175,000 lbs.
FL	200,000 psi	N/A	200,000 lbs.
FN	N/A	N/A	300,000 lbs.
FP	N/A	N/A	400,000 lbs.
FU	N/A	N/A	1,500,000 lbs.

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Range Codes

ACCELERATION

Code	Range
GJ	5g
GK	10g
GL	20g
GN	50g
GP	100g
GR	500g

TORR

Code	Range
HA	15
HB	50
HC	135
HD	250
HE	750
HF	1500

mBAR

Code	Range
JA	35
JB	70
JC	175
JD	350
JE	700
JF	750
JG	1,000
JH	3,500
JI	7,000
JK	10,000

KPa

Code	Range
KA	2
KB	7
KC	15
KD	35
KE	70
KF	100
KG	200
KH	300
KJ	700
KL	1,000
KM	1,500
KN	1,700
KP	2,000
KQ	3,000
KR	5,000
KS	7,000
KT	10,000
KU	15,000
KV	20,000
KW	35,000
KY	50,000
KZ	70,000

LOAD CELL, HIGH RANGE

Code	Range
RA	1 Metric Ton
RB	3 Metric Ton
RC	5 Metric Ton
RD	10 Metric Ton
RE	20 Metric Ton
RF	30 Metric Ton
RG	50 Metric Ton
RH	100 Metric Ton
RI	200 Metric Ton

TORQUE

Code	Range
TA	10 in. ozs.
TB	25 in. ozs.
TD	100 in. ozs.
TF	250 in. ozs.
TH	50 in. lbs.
TJ	100 in. lbs.
TL	300 in. lbs.
TN	600 in. lbs.
TP	1,200 in. lbs.
TR	3,000 in. lbs.
TT	6,000 in. lbs.
TV	12,000 in. lbs.
TW	24,000 in. lbs.
TX	Special

LIQUID PRESSURE Inches Hg (mercury)

Code	Range
UB	1" Hg
UD	2" Hg
UF	5" Hg
UA	10" Hg
UC	15" Hg
UE	20" Hg
UG	30" Hg
UI	50" Hg
UK	60" Hg
UM	80" Hg
UP	100" Hg
UH	200" Hg
UJ	300" Hg
UL	500" Hg
UN	1,000" Hg
UQ	16"-32" Hg
UR	26"-32" Hg
US	0"-32" Hg

LIQUID PRESSURE mm Hg (mercury)

Code	Range
VA	15mm Hg
VB	50mm Hg
VC	135mm Hg
VD	250mm Hg
VE	750mm Hg
VF	1,500mm Hg

LIQUID PRESSURE Inches H₂O (water)

Code	Range
WA	10" H ₂ O
WC	20" H ₂ O
WE	30" H ₂ O
WG	50" H ₂ O
WI	100" H ₂ O
WK	120" H ₂ O
WM	150" H ₂ O
WP	200" H ₂ O
WR	300" H ₂ O
WS	500" H ₂ O

Range Codes

RANGE CODE	GAGE, ABSOLUTE & DIFFERENTIAL PRESSURE		LOAD CELLS	
MA	.035 bar	N/A	N/A	N/A
MB	.1 bar	1.45 psi	.1 Newton	N/A
MC	.2 bar	2.9 psi	.2 Newton	N/A
MD	.5 bar	7.25 psi	.5 Newton	50.9 gm
ME	1 bar	14.5 psi	1 Newton	101.8 gm
MF	2 bar	29 psi	2 Newton	203.6 gm
NA	3.5 bar	50.75 psi		
MG	5 bar	72.5 psi	5 Newton	1.12 gm
NB	7 bar	101.5 psi		
MH	10 bar	145 psi	10 Newton	2.2 lbs
MI	20 bar	290 psi	20 Newton	4.496 lbs
MJ	30 bar	435 psi	30 Newton	N/A
NC	35 bar	507.5 psi		
MK	50 bar	725 psi	50 Newton	11.24 lbs
ND	70 bar			
ML	100 bar	1,450 psi	100 Newton	22.48 lbs
NE	135 bar			
MY	200 bar	2,900 psi	500 Newton	112.4 lbs
NG	350 bar			
MM	500 bar	7,250 psi	200 Newton	44.96 lbs
NH	700 bar			
MN	1,000 bar	14,500 psi	1,000 Newton	224.8 lbs
MO	2,000 bar	29,000 psi	2,000 Newton	449 lbs
MP	3,000 bar	43,500 psi	3,000 Newton	674.4 lbs
MQ	5,000 bar	72,500 psi	5,000 Newton	1,124 lbs
MR	10,000 bar	N/A	10,000 Newton	2,248 lbs
MS	N/A	N/A	20,000 Newton	4,496 lbs
MT	N/A	N/A	50,000 Newton	11,240 lbs
MU	N/A	N/A	100,000 Newton	22,480 lbs
MV	N/A	N/A	200,000 Newton	44,960 lbs

METRIC THREADS

Code	Range
32a	M3 x 0,5
32b	M4 x 0,7
32c	M5 x 0,8
32d	M6 x 1,0
32e	M10 x 1,0
32f	M10 x 1,5
32g	M12 x 1,5
32h	M12 x 1,75
32i	M20 x 1,5
32j	M24 x 1,5
32k	M27 x 1,5
32l	M36 x 3,0
32m	M39 x 1,5
32n	M52 x 3,0
32p	M64 x 2,0

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Sample Purchase Order

TO: HONEYWELL Sensotec Sensors 2080 Arlingate Lane Columbus, Ohio 43228		Purchase Order #: ABC123 Customer #: XXXX ← A Date: 1/1/03	
Bill To: ABC, Inc. P.O. Box 123 New York, NY 10001 Attn: Accounts Payable		Ship to: ABC, Inc. 123 Anyplace Dr. New York, NY 10001 Attn: John Doe	
Ship Via: United Parcel Service (UPS) ← B			
Item	Qty	Model/Description	Unit Price
1	2	AP122CV, 1c, 5d, (P/N 060-1495-25) Model TJE Absolute pressure transducer; 0-1000 psia range; 0.1% accuracy. Options: Temperature compensated from 0° F to 185° F; and a 7/16" -20 UNF male pressure port.	XXX.XX ← C
			← D
			← E
2	1	AE221, 53a, 58c Model 450D instrument. Options: RS232 serial output and peak/hold. Item 2 to be used with item 1.	XXX.XX ← F
			← G
3	1	AA112 PT06A-10-6S Mating connector/cable assembly with 50 ft. of 6 conductor cable to be used with items 1 and 2.	XXX.XX
			← H
Purchasing Contact: Jane Smith (212) 646-1000 X 211		} ← I	
Technical Contact: John Doe (212) 646-1000 X 315			

- A** Existing customers have an established customer number for specific bill to and ship to locations.
- B** Unless otherwise specified, Honeywell Sensotec will ship your product UPS. Other means of shipment such as Emery, Federal Express, UPS next day, etc. are available. Terms: FOB Honeywell Sensotec plant.
- C** Order Code identifies product model, range, and options.
- D** If you wish to reorder an exact duplicate of a product ordered previously, you can use the part number (ie: part number 060-1495-25 would appear as TJE/1495-25 on the product label) when ordering. Otherwise, leave this space blank.
- E** It is important to include a full description of the product after the order code. By providing both the order code and a full description, you reduce the possibility of an order error and avoid unnecessary delays in shipment.
- F** Unit price includes the list price for the model/range you select, plus any additional charges for options specified, less any quantity or GSA discount.
- G** By specifying which items will be used together, you help insure that compatible products will be shipped. When you purchase both the transducer and instrument from Honeywell Sensotec and specify that they will be used together, we calibrate the two units as a system, free of charge.
- H** Ship dates should be confirmed by the Customer Service Department. Items with different ship dates should be listed separately. Unless otherwise specified on the order, Honeywell Sensotec assumes that early and/or partial shipments are acceptable. When ordering products from the stocking program, specify "Ship From Stock" on the order.
- I** The name and telephone number of both a purchasing and a technical contact should be provided so that questions concerning the order can be easily resolved without unnecessarily delaying processing and shipment.