

NCR-86

Mark X if none										
									X	
Sample										
NR86.2SW	SD	C	K	AA	A	N	F	H		CR

- Approvals**
- AE** - ATEX/UKEX (XP) Zone 0/1, 1
 - AJ** - ATEX/UKEX (XP) Zone 0/1, 1 + (DIP) Zone 20, 20/21, 21
 - AR** - ATEX/UKEX (DIP) Zone 20, 20/21, 21
 - CE** - CSA (XP) Class I, Div 1, Groups A, B, C, D
 - CJ** - (XP) Class I, Div 1, Groups A-D, (DIP) CII D1, Groups E-G
 - CR** - CSA (DIP) Class II, DIV 1 Groups E, F, G
 - IE** - IEC (XP) Zone 0/1, 1
 - IJ** - IEC (XP) Zone 0/1, 1+ (DIP) Zone 20, 20/21, 21
 - IR** - IEC (DIP) Zone 20, 20/21, 21
 - XX** - Designed for non-EX environment

- Output**
- H** - Two wire 4-20mA / HART®; 12-35V DC
 - B** - Four wire 4-20mA / HART®; 90-253V AC (Dual Chamber)
 - I** - Four wire 4-20mA / HART®; 9-48 DC (Dual Chamber)
 - P** - Two wire Profibus PA
 - W** - Four wire Modbus (Dual Chamber)

- Display**
- A** - Bindisc top mounted with display window
 - F** - Top mounted w/o Bindisc with inspection window
 - K** - Bindisc top mounted with display window & bluetooth
 - X** - Without inspection window or Bindisc

- Connection**
- N** - Two ½" NPT / blind plug in one opening
 - M** - M210x1.5/cable gland PA Black (5-9mm)
 - Q** - Two ½" NPT / without plug in either opening

- Housing**
- A** - Aluminium single chamber / IP66/IP68 (0.2bar)
 - D** - Aluminum double chamber/IP66/IP68 (0.2bar)
 - K** - Plastic single chamber /IP66/IP67
 - 8** - Stainless steel single chamber
 - V** - Stainless steel chamber (Cast)
 - R** - Plastic double chamber / IP66/IP67
 - W** - Stainless steel double chamber / IP66/IP68 (0.2bar)

- Seal**
- AA** - FKM (SHS FPM 70C3 GLT) Temp -40°F to +266°F
 - AB** - FKM (SHS FPM 70C3 GLT) Temp -40°F to +392°F
 - AJ** - PTFE/PTFE/Process Temp -40°F to +392°F (200°C)
 - AT** - PP/PP/Temp: 40°F to 176°F (80°C)
 - AU** - FKM (SHS FPM 70C3 GLT) Temperature: -40°F to +176°F
 - AV** - EPDM (COG AP210) Temperature -40°F to +176°F (80°C)
 - AW** - PTFE/PTFE/Temperature -40°F to +302°F (150°C)
 - AX** - PTFE/PTFE/Temperature -40°F to +392°F (200°C)

- Add equipment**
- X** - None
 - K** - With rinsing connection

- Version**
- B** - Plastic horn antenna
 - F** - Flanged with encapsulated antenna
 - H** - Hygienic fitting with encapsulated antenna
 - T** - Threaded with integrated horn antenna
 - C** - With lens antenna

- Mounting**
- XX** - No Mounting (1)
 - AL** - Adapter flange 4" 150lb FF, ASME / PP-GF30
 - AM** - Adapter flange 6" 150lb FF, ASME / PP-GF30
 - AO** - Adapter flange 8" 150lb FF, ASME / PP-GF30
 - AU** - Adapter flange 3" 150lb FF, ASME / PP-GF30
 - CA** - Clamp 2" PN16 (ø64mm) DIN32676, SS
 - CB** - Clamp 3" PN10 (ø91mm) DIN32676, SS
 - GI** - Flange 2" 150lb RF, ASME B16.5 / 316/316L
 - GJ** - Flange 2" 300lb RF, ASME B16.5 / 316/316L
 - GK** - Flange 2-1/2" 300lb RF, ASME B16.5 / 316/316L
 - GM** - Flange 3" 150lb RF, ASME B16.5 / 316/316L
 - GN** - Flange 3" 300lb RF, ASME B16.5 / 316/316L
 - GP** - Flange 4" 150lb RF, ASME B16.5 / 316/316L
 - GQ** - Flange 4" 300lb RF, ASME B16.5 / 316/316L
 - GR** - Flange 4" 600lb RF, ASME B16.5 / 316/316L
 - GS** - Flange 5" 150lb RF, ASME B16.5 / 316/316L
 - GT** - Flange 5" 300lb RF, ASME B16.5 / 316/316L
 - GU** - Flange 6" 150lb RF, ASME B16.5 / 316/316L
 - GV** - Flange 6" 300lb RF, ASME B16.5 / 316/316L
 - GW** - Flange 8" 150lb RF, ASME B16.5 / 316/316L
 - GY** - Flange 8" 300lb RF, ASME B16.5 / 316/316L
 - XJ** - Thread AMSE B1.20.1 0.75" NPT PN40, 316/316L
 - XK** - Thread AMSE B1.20.1 1.0" NPT PN40, 316/316L

- XB** - Thread AMSE B1.20.1 1.5" NPT PN40, 316/316L
- TD** - Thread AMSE B1.20.1 2.0" NPT PN40, 316/316L
- XC** - Mounting strap, length: 6.7 inches (170mm)
- XD** - Mounting strap, length: 11.8 inches (300 mm)
- SD** - Swiveling holder with flange 4" 150lb / 316 / 316L
- SE** - Swiveling holder with flange 6" 150lb / 316 / 316L
- SF** - Swiveling holder with flange 8" 150lb / 316 / 316L



NCR-86: Liquid & Bulk Solid Radar Base

Before placing an order, validate your selections with a sales representative, as not all options are offered for every configuration.



NCR-86

The NCR-86 is an 80 GHz radar used for continuous, non-contact level measurement. Measure solids or liquids at distances up to 393 feet with the NCR-86 level sensor. This versatile radar level sensor has built-in 80 GHz, 26 GHz, and 6 GHz frequencies making it adaptable to material of any bulk density or specific gravity. The signal is focused in a very narrow beam angle, allowing for precise aiming to avoid obstructions in the tank such as agitators, mixers, fittings, or heating coils.

Description	CODE
BASE UNIT	
NCR-86 Liquid and Bulk Solid Radar	NCR-86.2SW
MOUNTING	
Mounting: XX - No Mounting	XX
Mounting: AL - Adapter flange 4" 150lb FF, ASME / PP-GF30	AL
Mounting: AM - Adapter flange 6" 150lb FF, ASME / PP-GF30	AM
Mounting: AO - Adapter flange 8" 150lb FF, ASME / PP-GF30	AO
Mounting: AU - Adapter flange 3" 150lb FF, ASME / PP-GF30	AU
Mounting: CA - Clamp 2" PN16 (ø64mm) DIN32676, SS	CA
Mounting: CB - Clamp 3" PN10 (ø91mm) DIN32676, SS	CB
Mounting: GI - Flange 2" 150lb RF, ASME B16.5 / 316/316L	GI
Mounting: GJ - Flange 2" 300lb RF, ASME B16.5 / 316/316L	GJ
Mounting: GK - Flange 2-1/2" 300lb RF, ASME B16.5 / 316/316L	GK
Mounting: GM - Flange 3" 150lb RF, ASME B16.5 / 316/316L	GM
Mounting: GN - Flange 3" 300lb RF, ASME B16.5 / 316/316L	GN
Mounting: GP - Flange 4" 150lb RF, ASME B16.5 / 316/316L	GP
Mounting: GQ - Flange 4" 300lb RF, ASME B16.5 / 316/316L	GQ
Mounting: GR - Flange 4" 600lb RF, ASME B16.5 / 316/316L	GR
Mounting: GS - Flange 5" 150lb RF, ASME B16.5 / 316/316L	GS
Mounting: GT - Flange 5" 300lb RF, ASME B16.5 / 316/316L	GT
Mounting: GU - Flange 6" 150lb RF, ASME B16.5 / 316/316L	GU
Mounting: GV - Flange 6" 300lb RF, ASME B16.5 / 316/316L	GV
Mounting: GW - Flange 8" 150lb RF, ASME B16.5 / 316/316L	GW
Mounting: GY - Flange 8" 300lb RF, ASME B16.5 / 316/316L	GY
Mounting: XJ - Thread AMSE B1.20.1 0.75" NPT PN40, 316/316L	XJ
Mounting: XK - Thread AMSE B1.20.1 1.0" NPT PN40, 316/316L	XK
Mounting: XB - Thread AMSE B1.20.1 1.5" NPT PN40, 316/316L	XB
Mounting: TD - Thread AMSE B1.20.1 2.0" NPT PN40, 316/316L	TD
Mounting: XC - Mounting strap, length: 6.7 inches (170mm)	XC
Mounting: XD - Mounting strap, length: 11.8 inches (300 mm)	XD
Mounting: SD - Swiveling holder with flange 4" 150lb / 316 / 316L (requires rinsing connection K)	SD

Description	CODE
Mounting: SE - Swiveling holder with flange 6" 150lb / 316 / 316L (requires rinsing connection K)	SE
Mounting: SF - Swiveling holder with flange 8" 150lb / 316 / 316L (requires rinsing connection K)	SF
VERSION	
Version: B - Plastic horn antenna	B
Version: F - Flanged with encapsulated antenna	F
Version: H - Hygienic fitting with encapsulated antenna	H
Version: C - With lens antenna	C
Version: T - Threaded with integrated horn antenna	T
ADD EQUIP	
Ad Equip: X - None	X
Ad Equip: K - With rinsing connection (required with SD, SE, SF flanges)	K
SEAL	
Seal: AA - FKM (SHS FPM 70C3 GLT) Temp -40°F to +266°F	AA
Seal: AJ - PEEK/FFKM (Perlast G74S)/-15...+150°C	AJ
Seal: AB - FKM (SHS FPM 70C3 GLT) Temp -40°F to +392°F	AB
Seal: AT - PP/PP/Temp: 40°F to 176°F (80°C)	AT
Seal: AU- FKM (SHS FPM 70C3 GLT) Temperature: -40°F to +176°F	AU
Seal: AV - EPDM (COG AP210) Temperature -40°F to +176°F (80°C)	AV
Seal: AW - PTFE/PTFE/Temperature -40°F to +3-2°F (150°C)	AW
Seal: AX - PTFE/PTFE/Temperature -40°F to +392°F (200°C)	AX
HOUSING	
Housing: 8 - Stainless steel single chamber	8
Housing: A - Aluminium single chamber / IP66/IP68 (0.2bar)	A
Housing: K - Plastic single chamber /IP66/IP67	K
Housing: V - Stainless steel chamber (Cast)	V
Housing: D - Aluminum double chamber/IP66/IP68 (0.2bar)	D
Housing: W - Stainless steel double chamber / IP66/IP68 (0.2bar)	W
Housing: R - Plastic double chamber / IP66/IP67	R
CONNECTION	
Connection: N - Two ½" NPT / blind plug in one opening	N
Connection: M - M210x1.5/cable gland PA Black (5-9mm)	M
Connection: Q - Two ½" NPT / without plug in either opening	Q
DISPLAY	
Display: X - Without inspection window or BinDisc	X
Display: A - Bindisc top mounted with display window	A
Display: F - Top mounted w/o Bindisc with inspection window	F
Display: K - Bindisc top mounted with display window & bluetooth	K
OUTPUT	
Output: H - Two wire 4-20mA / HART@; 12-35V DC	H
Output: B - Four wire 4-20mA / HART@; 90-253V AC (Dual Chamber)	B
Output: I - Four wire 4-20mA / HART@; 9-48 DC (Dual Chamber)	I

Description	Price	CODE
Output: P - Two wire Profibus PA		P
Output: W - Four wire Modbus (Dual Chamber)		W
APPROVALS		
Approvals: CE - CSA (XP) Class I, Div 1, Groups A, B, C, D		CE
Approvals: CJ - (XP) Class I, Div 1, Groups A, B, C, D, (DIP) CII D1, Groups E, F, G		CJ
Approvals: CR - CSA (DIP) Class II, DIV 1 Groups E, F, G		CR
Approvals: XX - Designed for non -EX environment		XX
Approvals: AE - ATEX/UKEX (XP) Zone 0/1, 1		AE
Approvals: AJ - ATEX/UKEX (XP) Zone 0/1, 1 + (DIP) Zone 20, 20/21, 21		AJ
Approvals: AR - ATEX/UKEX (DIP) Zone 20, 20/21, 21		AR
Approvals: IE - IEC (XP) Zone 0/1, 1		IE
Approvals: IR - IEC (DIP) Zone 20, 20/21, 21		IR
Approvals: IJ - IEC (XP) Zone 0/1, 1+ (DIP) Zone 20, 20/21, 21		IJ

CNCR

Mark X if none								
	XX	X	X	X		A		
Sample								
CNCR.100.	XX	X	X	X	N	A	H	B

Output

H - Two wire 4-20mA/HART: 12-35V DC
(No HART on CNCR-100)
W - Four wire Modbus; 8-30V DC

Connection

A - 16 ft (5m) polyurethane pigtail
B - 32 ft (10m) polyurethane pigtail
C - 82 ft (25m) polyurethane pigtail
Note: A&C not available for CNCR-110

Mounting

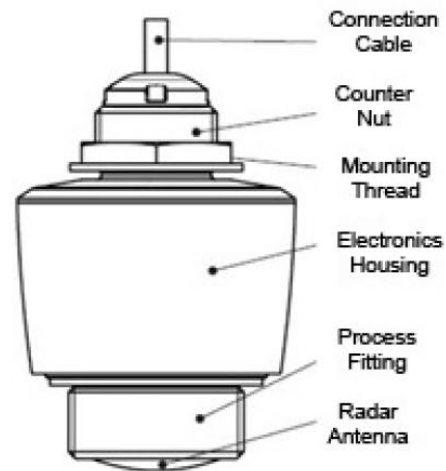
N - 1.5" Threaded NPT
G - 1.5" Threaded Straight
M - 1.0" Threaded NPT
F - 1.0" Threaded Straight

Approvals

XX - Unclassified area, non-EX environment, general purpose FM/CSA/CE
VH - FM/CSA/ATEX/ICEx Class I, II, III
VB - ATEX/ICEx Zone 1, 1/2
FB - c-FM-us/c-CSA-us, gas, encapsulation, Zone 1, 2 (Class 1 Division 2) + Dust, protection by enclosure. Zone 20, 20/21, 21, 22 (Class II, III Division 1)
FR - C-FM-us/c-CSA-us; Gas, non-incendive, Class I Division 2 + Dust-ignition proof, Class II, III Division 1

Version

CNCR-110. - 26 ft (8M) 4-20 mA (top cable connection)
CNCR-120. - 49 ft (15M) 4-20 mA & Modbus (top cable connection)
CNCR-130. - 49 ft (15M) 4-20 mA & Modbus (side cable connection)
CNCR-190. - 98 ft (30M) 4-20 mA & Modbus (top cable connection)



Before placing an order, validate your selections with a sales representative, as not all options are offered for every configuration.



CNCR-100

The CNCR-110, 120, 130, and 190 all install using a polyurethane pigtail connection cable available in 16, 32, or 82-foot lengths. These sensors are rated to IP66/IP68 (3 bar) with housings made from durable PVDF material that has excellent chemical, abrasion, flame resistance, and UV stability. The FKM seal provides heat and chemical resistance for long-lasting durability. They are for use unclassified areas, non-EX environments, and have general purpose FM/CSA/CE certifications.

Description	CODE	Part No.
VERSION		
CNCR-110 26 ft (8 M) 4-20 mA (top cable connection)	110	
CNCR-120 49 ft (15 M) 4-20 mA & Modbus (top cable connection)	120	
CNCR-130 49 ft (15 M) 4-20 mA & Modbus (side cable connection)	130	
CNCR-190 98 ft (30 M) 4-20 mA & Modbus (top cable connection)	190	
APPROVALS		
Unclassified area, non-EX environment, general purpose FM/CSA/CE	XX	
ATEX/IEC/c-FM-us/c-CSA-us; gas, intrinsic safety, Zone 0, 0/1, 1, 2 (Class I Division 1, 2) + Dust, intrinsic safety, Zone 20, 20/21, 21, 22 (Class II, III Division 1, 2) (CNCR 120, 130, 190) for 2-wire non-Modbus units	VH	
ATEX/IEC; gas, encapsulation, Zone 1, 1/2, 2 + Dust, protection through housing, Zone 20, 21/22, 21, 22 (CNCR 120, 130, 190)	VB	
c-FM-us/c-CSA-us; Gas, encapsulation, Zone 1, 2 (Class I Division 2) + Dust, protection by enclosure, Zone 20, 20/21, 21, 22 (Class II, III Division 1) for Modbus units	FB	
c-FM-us/c-CSA-us; Gas, non-incendive, Class I Division 2 + Dust-ignition proof, Class II, III Division 1	FR	
MOUNTING		
1.5" Threaded NPT	N	
1.5" Threaded straight	G	
1.0" Threaded NPT (CNCR-190)	M	
1.0" Threaded straight (CNCR-190)	F	
OUTPUT		
Two wire 4-20mA / HART®; 12-35V DC (No HART on CNCR-110)	H	
Four-wire Modbus; 8-30V DC	W	
CONNECTION		
16 ft (5 m) polyurethane pigtail (not available on CNCR-110)	A	
32 ft (10 m) polyurethane pigtail	B	
82 ft (25 m) polyurethane pigtail (not available on CNCR-110)	C	
MOUNTING BRACKETS		
1.0" opening, 3.25" wall mount bracket made of stainless steel, includes three self tapping screws (CNCR-190)		730-0787
1.5" opening, 3.25" wall mount bracket made of stainless steel, includes three self tapping screws (nut 140-1004 not included)		730-0788
1.0" opening, 8.0" wall mount bracket made of stainless steel, includes three self tapping screws (CNCR-190)		730-0789

Description	CODE	Part No.
1.5" opening, 8.0" wall mount bracket made of stainless steel, includes three self tapping screws (nut 140-0014 not included)		730-0790
1.5" opening ceiling mounted bracket made of stainless steel, include three self tapping screws (nut 140-1004 not included)		730-0791
1.5" NPT plastic nut		140-1004
MOUNTING PLATES		
Wall mount bracket for 1.0" CNCR		771-0065
10° 1" NPS full coupler mounting plate kit. Contains white power-coated mounting plate and neoprene gasket.		730-0828
30° 1" NPS full coupler mounting plate kit. Contains white powder-coated mounting plate and neoprene gasket.		730-0797
GRMP-6: 0° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0298
GRMP-10: 0° 1" NPT Powder coated carbon steel mounting plate with half coupling		730-0488
GRMP-11: 5° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0501
GRMP-12: 10° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0502
GRMP-18: 30° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0633
Swivel mount with 1.5" NPT female connector. Can swivel in one direction up to 40°.		SWVL-40
POWER SUPPLY		
PSDC-1: 24 VDC / 30 VA, NEMA 1 din rail mounted power supply		399-0022
PSDC-1: 24 VDC / 30 VA, NEMA 1 din rail mounted power supply		730-0577
PSDC-5: Power supply 90-264 VAC converted to 24 VDC 1 A		399-0030

Mark X if none									
	XX	X	X	X			Q	H	
Sample									
CNCR-210.	XX	X	X	X	N		Q	H	B

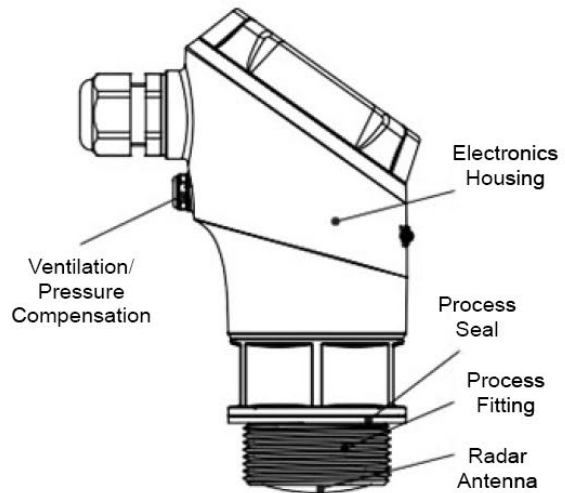
Output
 H: Two wire 4-20mA / HART®; 12-35V DC
 (No HART on CNCR-210)

Connection
 Q: Cable Entry: One 1/2" NPT
 without plug

Mounting
 N: 1.5" Threaded NPT
 G: 1.5" Threaded Straight

Approvals
 XX: Unclassified area, non-EX environment,
 general purpose FM/CSA/CE
 VC: CSA-US, Class I, Div 1,2 (220, 230 only)

Version
 CNCR-210. - 26 ft (8 M) 4-20 mA
 CNCR-220. - 49 ft (15 M) 4-20 mA
 CNCR-230. - 49 ft (15 M) 4-20 mA with Display





CNCR-200

The 210, 220, and 230 all mount using a 1.5" threaded NPT or 1.5" threaded straight NPT connection. The enclosures are rated IP66/IP67, Type 4X to protect them from dust and water damage. They are ideal sensors for non-contact level measurement for basic liquid level applications. They are particularly suitable for use in water treatment, storage tanks with acids, lyes and additives in all industrial areas, or for measuring levels in plastic tanks or IBC containers through the tank walls.

Description	CODE	Part No.
VERSION		
CNCR-210 26 ft (8 M) 4-20 mA	210	
CNCR-220 49 ft (15 M) 4-20 mA/HART	220	
CNCR-230 49 ft (15 M) 4-20 mA with Display/HART	230	
APPROVALS		
Unclassified area, non-EX environment, general purpose FM/CSA/CE	XX	
CSA-US, Class I, Div 1, 2 (220, 230 only)	VC	
MOUNTING		
1.5" Threaded NPT	N	
1.5" Threaded Straight	G	
OUTPUT		
Two wire 4-20 mA / HART®; 12-35V DC (No HART on CNCR-210)	H	
CONNECTION		
Cable Entry: One 1/2" NPT without plug	Q	
MOUNTING BRACKETS		
1.5" opening, 3.25" wall mount bracket made of stainless steel, includes three self tapping screws (requires 140-1004, not included)		730-0788
1.5" opening, 8.0" wall mount bracket made of stainless steel, includes three self tapping screws (requires 140-1004, not included)		730-0790
1.5" opening ceiling mounted bracket made of stainless steel, include three self tapping screws (requires 140-1004, not included)		730-0791
1.5" NPT plastic nut		140-1004
MOUNTING PLATES		
GRMP-6: 0° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0298
GRMP-11: 5° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0501
GRMP-12: 10° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0502
GRMP-18: 30° 1.5" NPT Powder coated carbon steel mounting plate with half coupling		730-0633
Swivel mount with 1.5" NPT female connector. Can swivel in one direction up to 40°.		SWVL-40
POWER SUPPLY		
PSDC-1: 24 VDC / 30 VA, NEMA 1 din rail mounted power supply		399-0022
PSDC-1: 24 VDC / 30 VA, NEMA 1 din rail mounted power supply		730-0577
PSDC-5: Power supply 90-264 VAC converted to 24 VDC 1 A		399-0030