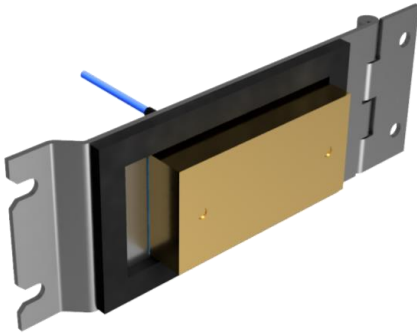
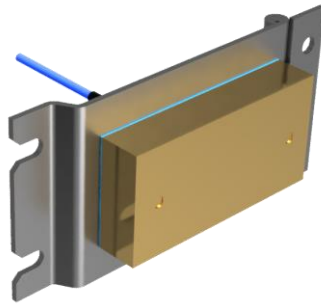


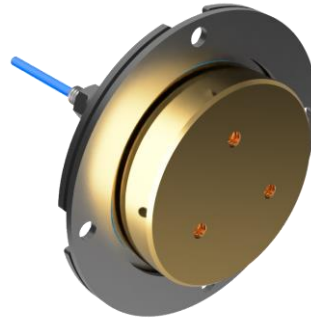
Brass Rub Blocks Belt Misalignment Sensors



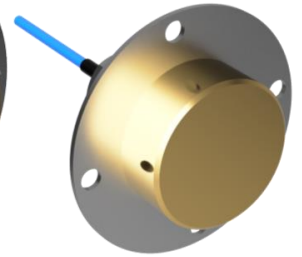
2"x4" Brass Block with
3"x9" Inspection Door



2"x4" Brass Block with
3"x6" Inspection Door



3" Round Brass Block
with Installation Rings



2" Round Brass Block
with Mounting Plate

APPLICATION

Detects belt tracking and alignment problems on bucket elevators and conveyors.

METHOD OF OPERATION

Brass rub blocks monitor for belt misalignment problems on bucket elevators and conveyors by detecting heat generated by the friction of the misaligning belt rubbing against the brass.

A temperature sensor within the brass block provides the temperature reading and the control system generates an alarm and a shutdown when a trip point is reached.

The sensors are usually installed in pairs on opposite sides of the machine to detect misalignment on either side. Sensors can be connected to a PLC directly on the input card or in 4B's network interface IE-Node, or for greater safety, to a central independent monitoring system such as 4B's Watchdog™ Super Elite or T400N Elite Hotswitch.

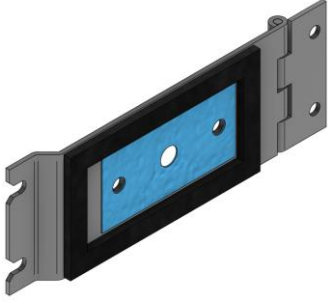
FEATURES

- ▶ Easy Installation
- ▶ No Moving Parts (Solid Brass Block)
- ▶ Temperature Activated (Friction)
- ▶ Compatible with all the ADB temperature sensors (NTC, Pt100, 4-20 mA)
- ▶ External Sensor Testing using 4B's ADBT4 tester
- ▶ Extensive range of models and combinations to fit any application
- ▶ Prevents Unscheduled Downtime

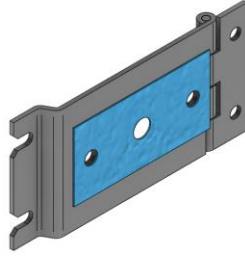


ADB T400N
Elite Hotswitch

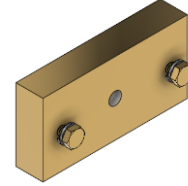
2"x4" Rectangular



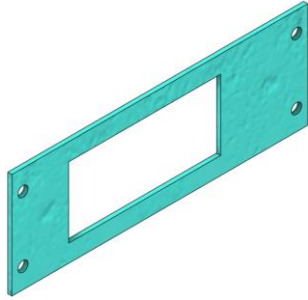
RBID3X9
3"x9" Stainless Steel Inspection Door
Supplied with foam and thermal gaskets



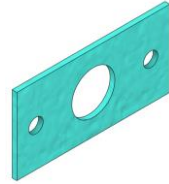
RBID3X6
3"x6" Stainless Steel Inspection Door
Supplied with thermal gasket



RB2W4LR*
2"x4" Rectangular Brass Block
Supplied with a pair of hex head brass bolts and SS lock washers



RBID3X9S18
Aramid Fiber 1/8" thick, 3"x9"
spacer



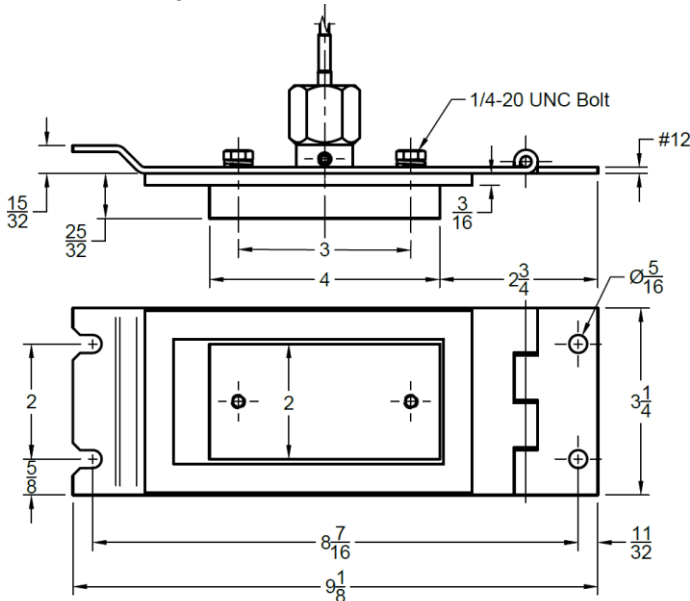
RB2W4LS18
Aramid Fiber 1/8" thick,
2"x4" shim

Part Number	Thickness
RB2W4LR4	1/2"
RB2W4LR2	3/4" (standard)
RB2W4LR5	1"
RB2W4LR6	1-1/4"

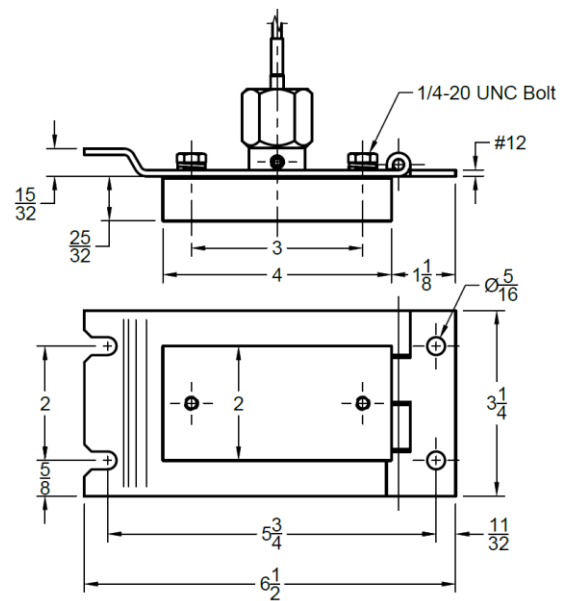
Note: Bolt length = block thickness + 1/4"

DIMENSIONS (in inches)

3"x9" Inspection Door with 2"x4"x3/4" Block

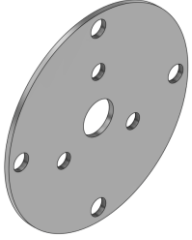


3"x6" Inspection Door with 2"x4"x3/4" Block

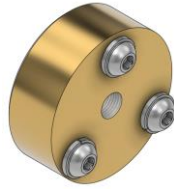


BRASS RUB BLOCKS

2" Round

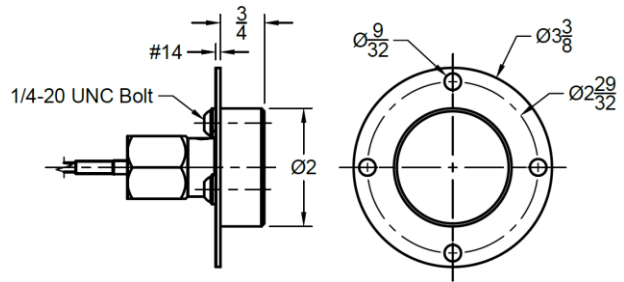


RBP1
2" Stainless Steel Mounting Plate

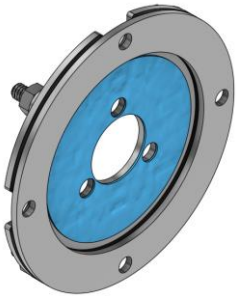


RBH1
2" Round x 3/4" Brass Block
Supplied with 3 Allen SS bolts and lock washers

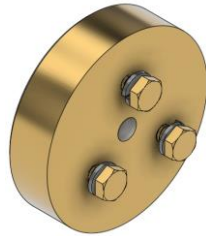
DIMENSIONS (in inches)



3" Round



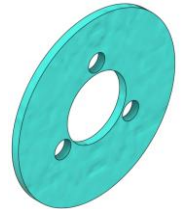
RB3D
3" Round Mounting Kit
Supplied with SS mounting plate, SS mounting ring, rubber and thermal gasket, SS nuts and washers



RBH2
3" Round x 3/4" Brass Block
Supplied with 3 hex head brass bolts and SS lock washers

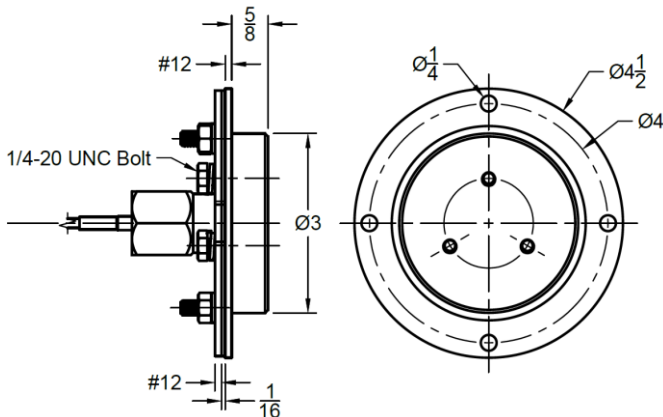


RB3RS18
Aramid Fiber 1/8" thick spacer

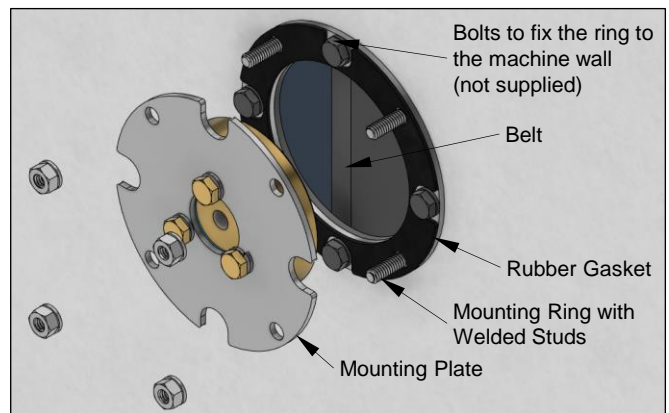


RB3S18
Aramid Fiber 1/8" thick shim

DIMENSIONS (in inches)



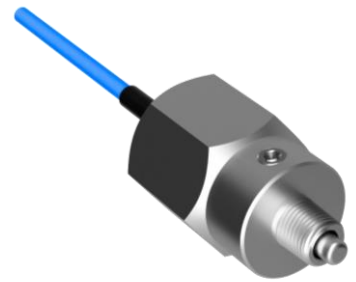
Installation Example



Temperature Sensors

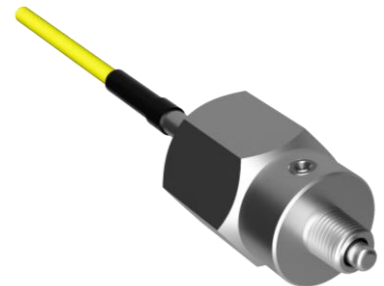
NTC (for 4B's Watchdog, IE-Node or T400N)

Part Number	ADB20V3C/D2/NG	ADB20V3NAI/D2/NG
Resistance at 77°F (25° C)	10,000 Ohms	
Sensing Voltage	5 to 24 VDC	
Body/Probe Material	304 Stainless Steel	
Cable	9 ft (3 m) Blue Cable, with 2 Conductors 20 AWG	
Operating Temp	-22° F (-30° C) to 220° F (105° C)	
Approvals	CSA Class II Div 1 (USA & Canada)	Inmetro, ATEX and IECEX Zone 20



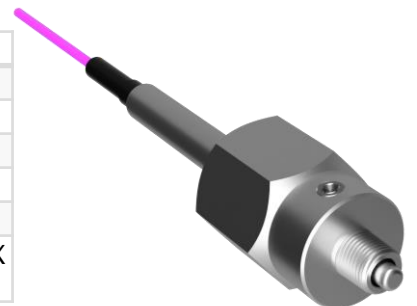
Pt100 (for PLC RTD Inputs Cards)

Part Number	ADB29V3C/D2/NG	ADB29V3NAI/D2/NG
Resistance at 77°F (25°C)	109.73 Ohms	
Sensing Voltage	5 to 24 VDC	
Body/Probe Material	304 Stainless Steel	
Cable	9 ft (3 m) Yellow Cable, with 4 Conductors 20 AWG	
Operating Temp	-22° F (-30° C) to 220° F (105° C)	
Approvals	CSA Class II Div 1 (USA & Canada)	Inmetro, ATEX and IECEX Zone 20



4-20 mA (for PLC Analog Inputs Cards)

Part Number	ADBMIL1V4C/D2/NG	ADBMIL1V4NAI/D2/NG
Supply Voltage	24 VDC Nominal (15 to 28 VDC)	
Current Scale	4 mA at -40° F (-40° C), 20 mA at 248° F (120° C)	
Operating Temp	-40° F (-40° C) to 248° F (120° C)	
Body/Probe Material	304 Stainless Steel	
Cable	9 ft (3 m) Purple Cable, with 2 Conductors 20 AWG	
Approvals	CSA Class II Div 1 (USA & Canada)	Inmetro, ATEX and IECEX Zone 20

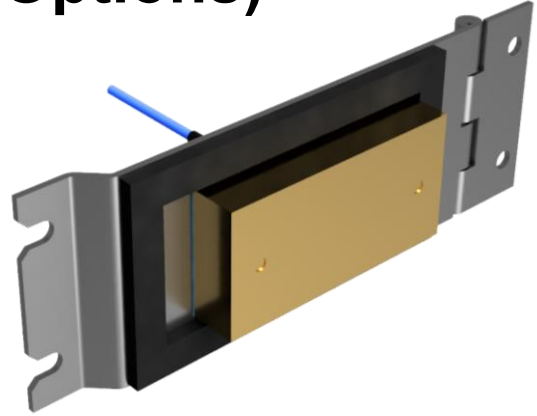


Approvals:



Note: For more details about the temperature sensors refer to their data sheet.

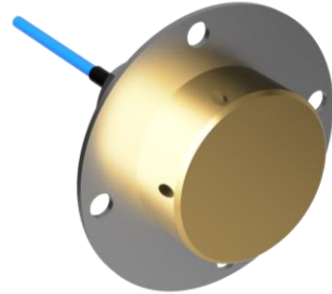
2"x4" Brass Blocks (Kit Options)



Sensor Type	Door Size	Brass Block Thickness	Kit Part Number
NTC ADB20V3C/D2/NG	Regular 3"x9" RBID3X9	1/2" RB2W4LR4	KIT-RUB-1-12
		3/4" RB2W4LR2	KIT-RUB-1 (Standard)
		1" RB2W4LR5	KIT-RUB-1-1
		1-1/4" RB2W4LR6	KIT-RUB-1-114
	Short 3"x6" RBID3X6	1/2" RB2W4LR4	KIT-RUB-S1-12
		3/4" RB2W4LR2	KIT-RUB-S1
		1" RB2W4LR5	KIT-RUB-S1-1
		1-1/4" RB2W4LR6	KIT-RUB-S1-114
PT100 ADB29V3C/D2/NG	Regular 3"x9" RBID3X9	1/2" RB2W4LR4	KIT-RUB-2-12
		3/4" RB2W4LR2	KIT-RUB-2 (Standard)
		1" RB2W4LR5	KIT-RUB-2-1
		1-1/4" RB2W4LR6	KIT-RUB-2-114
	Short 3"x6" RBID3X6	1/2" RB2W4LR4	KIT-RUB-S2-12
		3/4" RB2W4LR2	KIT-RUB-S2
		1" RB2W4LR5	KIT-RUB-S2-1
		1-1/4" RB2W4LR6	KIT-RUB-S2-114
4-20 mA ADBMIL1V4C/D2/NG	Regular 3"x9" RBID3X9	1/2" RB2W4LR4	KIT-RUB-8-12
		3/4" RB2W4LR2	KIT-RUB-8 (Standard)
		1" RB2W4LR5	KIT-RUB-8-1
		1-1/4" RB2W4LR6	KIT-RUB-8-114
	Short 3"x6" RBID3X6	1/2" RB2W4LR4	KIT-RUB-S8-12
		3/4" RB2W4LR2	KIT-RUB-S8
		1" RB2W4LR5	KIT-RUB-S8-1
		1-1/4" RB2W4LR6	KIT-RUB-S8-114

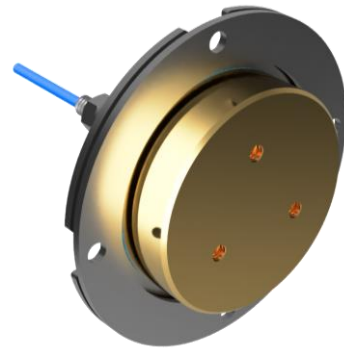
Note: Kits are available only in US and Canada.

2" Round Brass Blocks (Kit Options)



Sensor Type	Mounting Plate	Brass Block	Kit Part Number
NTC ADB20V3C/D2/NG	RBP1	RBH1	KIT-RUB-5
PT100 ADB29V3C/D2/NG	RBP1	RBH1	KIT-RUB-6
4-20 mA ADBMIL1V4C/D2/NG	RBP1	RBH1	KIT-RUB-9

3" Round Brass Blocks (Kit Options)



Sensor Type	Mounting Kit	Brass Block	Kit Part Number
NTC ADB20V3C/D2/NG	RB3D	RBH2	KIT-RUB-31
PT100 ADB29V3C/D2/NG	RB3D	RBH2	KIT-RUB-32
4-20 mA ADBMIL1V4C/D2/NG	RB3D	RBH2	KIT-RUB-38

Note: Kits are available only in US and Canada.