

PNP Solid State Sensor Selection Guide

Series		Bore size or type	3M flying leads	10m flying leads	8mm quick connect*	8mm quick connect w/ 1 m lead*	12mm quick connect*	Bracket	Sensor page #	Bracket page #
Compact cylinders	P1Q	12mm - 25mm	P8S-CPFLS	N/A	P8S-CPSHS	N/A	P8S-CPMHS	N/A	N/A	N/A
		32mm - 100mm	P8S-CPFLR	N/A	P8S-CPSHR	N/A	P8S-CPMHR	N/A	N/A	N/A
	P1M standard sensor	All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	N/A	B298	N/A
	P1M right angle sensor	All	P8S-SPELXD	P8S-SPETXD	P8S-SPTHXD	N/A	N/A	N/A	B301	N/A
	LPM	9/16"	L076990000 ²	N/A	L07699000C	N/A	N/A	N/A	B305	N/A
		3/4" - 1-1/8"	L077000000 ²	N/A	L07700000C	N/A	N/A	N/A	B305	N/A
		1-1/2" - 2"	L077010000 ²	N/A	L07701000C	N/A	N/A	N/A	B305	N/A
		2-1/2" - 4"	L077020000 ²	N/A	L07702000C	N/A	N/A	N/A	B305	N/A
Round body cylinders	P1L	20 - 25mm	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC01	B298	B301
		32 - 63mm	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC02	B298	B301
		80 - 100mm	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC03	B298	B301
	SRM/SRDM	9/16" - 3/4"	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC01	B298	B301
		1-1/16" - 2-1/2"	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC02	B298	B301
	P	1-1/8" - 2-1/2"	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC02	B298	B301
		3" - 4"	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC03	B298	B301
			Tie rod cylinders	3MA/4MA standard sensor	1-1/2" - 5"	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX
3MA/4MA	6" - 8"	P8S-TMA0X		B298	N/A					
3MA/4MA mini global sensor	1-1/8" - 5"	P8S-MPFLX		P8S-MPFTX	P8S-MPSHX	N/A	N/A	P8S-TMA0Z	B300	N/A
Iso cylinders	P1A standard sensor	10-25mm	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC01	B298	B301
	P1A right angle sensors	10mm	P1A-2XMK ¹	N/A	N/A	N/A	N/A	P1A-2CCC	B304	B304
		12mm	P1A-2XMK ¹	N/A	N/A	N/A	N/A	P1A-2DCC	B304	B304
		16mm	P1A-2XMK ¹	N/A	N/A	N/A	N/A	P1A-2FCC	B304	B304
		20mm	P1A-2XMK ¹	N/A	N/A	N/A	N/A	P1A-2HCC	B304	B304
		25mm	P1A-2XMK ¹	N/A	N/A	N/A	N/A	P1A-2JCC	B304	B304
	P1D standard & clean profiles	All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	N/A	B298	N/A
	P1D standard profile mini sensors	All	P8S-MPFLX	P8S-MPFTX	P8S-MPSHX	N/A	N/A	N/A	B300	N/A
	P1D tie rod version	All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMA0X	B298	N/A
Rodless cylinders	P1X	All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMA0Y	B298	N/A
	P1Z	All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	N/A	B298	N/A
	OSP-P	All	KL3308 ¹	KL3309 ⁴	KL3312	N/A	N/A	N/A	B303	N/A
	Guided cylinders	P5T	Flush mount	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	N/A	B298
Right angle			P8S-SPELXD	P8S-SPETXD	P8S-SPTHXD	N/A	N/A	Included w/ sensor	B299	N/A
P5T2		All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	N/A	B298	N/A
P5E		All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	N/A	B298	N/A
HB		All	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	N/A	B298	N/A
		20 - 25mm	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC01	B298	B301
P5L		32 - 63mm	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC02	B298	B301
		80 - 100mm	P8S-GPFLX	P8S-GPFTX	P8S-GPSHX	P8S-GPSCX	P8S-GPMHX	P8S-TMC03	B298	B301
Rotary actuators	PV WR XR	Normally open	SMH-1P ²	N/A	SMH-1PC	N/A	N/A	N/A	B307	N/A
		Normally closed	SMC-1P ²	N/A	SMC-1PC	N/A	N/A	N/A	B307	N/A
	PRN(A)	All	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
	PTR	10, 15	SWH-1P ³	N/A	SWH-1PC	N/A	N/A	Included	B308	N/A
		20, 25, 32	SWH-2P ³	N/A	SWH-2PC	N/A	N/A	Included	B308	N/A

1. Flying leads are 2 meters in length
2. Flying Leads are 1.5 meters in length

3. Flying leads are 1 meter in length
4. Flying leads are 5 meter in length

Note: See page B309 for Weld Immune Sensors and pages B311-B313 for NAMUR Intrinsically Safe Sensors.
* See page B317 for cord sets.



NPN Solid State Sensor Selection Guide

Series		Bore size or type	3m flying leads	10m flying leads	8mm quick connect*	8mm quick connect w/ 1m lead*	12mm quick connect*	Bracket	Sensor page #	Bracket page #
Compact cylinders	P1Q	12mm - 25mm	P8S-CNFLS	N/A	P8S-CNSHS	N/A	P8S-CNMHS	N/A	N/A	N/A
		32mm - 100mm	P8S-CNFLR	N/A	P8S-CNSHR	N/A	P8S-CNMHR	N/A	N/A	N/A
	P1M standard sensor	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	N/A	B298	N/A
	P1M right angle sensor	All	P8S-SNELX	P8S-SNETX	P8S-SNTHX	N/A	N/A	N/A	B301	N/A
	LPM	9/16"	L076950000 ²	N/A	L07695000C	N/A	N/A	N/A	B305	N/A
		3/4" - 1-1/8"	L076960000 ²	N/A	L07696000C	N/A	N/A	N/A	B305	N/A
		1-1/2" - 2"	L076970000 ²	N/A	L07697000C	N/A	N/A	N/A	B305	N/A
		2-1/2" - 4"	L076980000 ²	N/A	L07698000C	N/A	N/A	N/A	B305	N/A
Round body cylinders	P1L	20 - 25mm	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC01	B298	B301
		32 - 63mm	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC02	B298	B301
		80 - 100mm	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC03	B298	B301
	SRM/SRDM	9/16" - 3/4"	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC01	B298	B301
		1-1/16" - 2-1/2"	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC02	B298	B301
	P	1-1/8" - 2-1/2"	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC02	B298	B301
		3" - 4"	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC03	B298	B301
	Tie rod cylinders	3MA/4MA standard sensor	1-1/2" - 5"	P8S-GNFLX	P8S-GPNFTX	P8S-GNSHX	P8S-GPNSCX	P8S-GNMXH	N/A	B298
3MA/4MA		6" - 8"	P8S-TMA0X						B298	N/A
3MA/4MA mini- global sensor		1-1/8" - 5"	P8S-MNFLX	P8S-MNFTX	P8S-MNSHX	N/A	N/A	P8S-TMA0Z	B300	N/A
ISO cylinders	P1A standard sensor	10-25mm	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC01	B298	B301
	P1A right angle sensors	10mm bore	P1A-2XLK ¹	N/A	N/A	N/A	N/A	P1A-2CCC	B304	B304
		12mm bore	P1A-2XLK ¹	N/A	N/A	N/A	N/A	P1A-2DCC	B304	B304
		16mm bore	P1A-2XLK ¹	N/A	N/A	N/A	N/A	P1A-2FCC	B304	B304
		20mm bore	P1A-2XLK ¹	N/A	N/A	N/A	N/A	P1A-2HCC	B304	B304
		25mm bore	P1A-2XLK ¹	N/A	N/A	N/A	N/A	P1A-2JCC	B304	B304
	P1D standard & clean profiles	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	N/A	B298	N/A
	P1D standard profile mini Sensors	All	P8S-MNFLX	P8S-MNFTX	P8S-MNSHX	N/A	N/A	N/A	B300	N/A
P1D tie rod version	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMA0X	B298	N/A	
Rodless Cylinders	P1X	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMA0Y	B298	N/A
	P1Z	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	N/A	B298	N/A
	OSP-P	All	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Guided cylinders	P5T	Flush mount	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	N/A	B298	N/A
		Right angle	P8S-SNELX	P8S-SNETX	P8S-SNTHX	N/A	N/A	N/A	B299	N/A
	P5T2	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	N/A	B298	N/A
	P5E	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	N/A	B298	N/A
	HB	All	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	N/A	B298	N/A
	P5L	20 - 25mm	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC01	B298	B301
		32 - 63mm	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC02	B298	B301
		80 - 100mm	P8S-GNFLX	P8S-GNFTX	P8S-GNSHX	P8S-GNSCX	P8S-GNMXH	P8S-TMC03	B298	B301
Rotary actuators	PV WR XR	Normally open	SMH-1N ²	N/A	SMC-1NC	N/A	N/A	N/A	B307	N/A
		Normally closed	SMC-1N ²	N/A	SMC-1NC	N/A	N/A	N/A	B307	N/A
	PRN(A)	All	See page B306							
	PTR	10, 15	SWH-1N ³	N/A	SWH-1NC	N/A	N/A	Included	B308	N/A
20, 25, 32		SWH-2N ³	N/A	SWH-2NC	N/A	N/A	Included	B308	N/A	

- 1 Flying leads are 2 meters in length
- 2 Flying Leads are 1.5 meters in length
- 3 Flying leads are 1 meter in length

Note: See page B309 for Weld Immune Sensors and pages B311-B313 for NAMUR Intrinsically Safe Sensors.
* See page B317 for cord sets.



Reed Sensor Selection Guide

Series	Bore size or type	3m flying leads	10m flying leads	8mm quick connect*	8 mm quick connect w/ 1 m lead*	12mm quick connect*	Bracket	Sensor page #	Bracket page #
Compact cylinders	P1Q	12mm - 25mm	P8S-CRFLS	N/A	P8S-CRSHS	N/A	P8S-CRMHS	N/A	N/A
		32mm - 100mm	P8S-CRFLR	N/A	P8S-CRSHR	N/A	P8S-CRMHR	N/A	N/A
	P1M standard sensor	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
	P1M right angle sensor	All	P8S-SRELX	P8S-SRETX	P8S-SRTHX	N/A	N/A	N/A	B301
	LPM	9/16"	L077030000 ¹	N/A	L07703000C	N/A	N/A	N/A	B305
		3/4" - 1-1/8"	L077040000 ¹	N/A	L07704000C	N/A	N/A	N/A	B305
		1-1/2" - 2"	L077050000 ¹	N/A	L07705000C	N/A	N/A	N/A	B305
		2-1/2" - 4"	L077060000 ¹	N/A	L07706000C	N/A	N/A	N/A	B305
	P1L	20 - 25mm	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC01	B299
		32 - 63mm	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC02	B299
		80 - 100mm	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC03	B299
Round body cylinders	SRM/SRDM	9/16" - 3/4"	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC01	B299
		1-1/16" - 2-1/2"	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC02	B299
		1-1/8" - 2-1/2"	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC03	B299
	P	3" - 4"	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC03	B299
Tie rod cylinders	3MA/4MA standard sensor	1-1/2" - 5"	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
	3MA/4MA	6" - 8"						P8S-TMA0X	B299
	3MA/4MA mini global sensor	1-1/8" - 5"	P8S-MRFLX	P8S-MRFTX	P8S-MRSHX	N/A	N/A	P8S-TMA0Z	B299
ISO cylinders	P1A standard sensor	10-25mm	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC01	B299
	P1A alternate sensors	10mm bore	P1A-2XRL	N/A	P1A-2XSH	N/A	N/A	P1A-2CCB	B304
		12mm bore	P1A-2XRL	N/A	P1A-2XSH	N/A	N/A	P1A-2DCB	B304
		16mm bore	P1A-2XRL	N/A	P1A-2XSH	N/A	N/A	P1A-2FCB	B304
		20mm bore	P1A-2XRL	N/A	P1A-2XSH	N/A	N/A	P1A-2HCB	B304
		25mm bore	P1A-2XRL	N/A	P1A-2XSH	N/A	N/A	P1A-2JCB	B304
	P1D standard & clean profiles	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
	P1D standard profile mini sensors	All	P8S-MRFLX	P8S-MRFTX	P8S-MRSHX	N/A	N/A	N/A	B300
	P1D tie rod version	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMA0X	B299
	P1X	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMA0Y	B299
	P1Z	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
Rodless cylinders	OSP-P	All	KL3301 ³	KL3300 ⁴	KL3302	N/A	N/A	Included w/ sensor	B303
	P5T	Flush mount	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
		Right angle	P8S-SRELX	P8S-SRETX	P8S-SRTHX	N/A	N/A	N/A	B299
Guided cylinders	P5T2	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
	P5E	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
	HB	All	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	N/A	B299
	P5L	20 - 25mm	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC01	B299
		32 - 63mm	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC02	B299
		80 - 100mm	P8S-GRFLX	P8S-GRFTX	P8S-GRSHX	P8S-GRSCX	P8S-GRMHX	P8S-TMC03	B299
Rotary actuators	PV WR XR	N.O. high amp	SMR-1 ¹	N/A	SMR-1C	N/A	N/A	N/A	B307
		N.O. low amp	SMR-1L ¹	N/A	SMR-1LC	N/A	N/A	N/A	B307
		N.C.	SMD-1L ¹	N/A	SMD-1LC	N/A	N/A	N/A	B307
	PRN	50 - 800	See model code						B306
	PTR	10, 15	SWR-1 ²	N/A	SWR-1C	N/A	N/A	Included	B308
		20, 25, 32	SWR-2 ²	N/A	SWR-2C	N/A	N/A	Included	B308

1. Flying leads are 1.5 meters in length
2. Flying Leads are 1 meters in length

3. Flying leads are 2 meter in length
4. Flying leads are 5 meter in length

Note: See page B309 for Weld Immune Sensors and pages B311-B313 for NAMUR Intrinsically Safe Sensors.
* See page B317 for cord sets.



P8S Global Drop-In Solid State Sensors

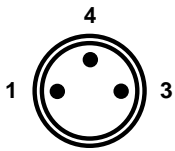


Wiring	PNP sensor	NPN sensor	PNP sensor ATEX certified
3m flying leads	P8S-GPFLX	P8S-GNFLX	P8S-GPFLX/EX
10m flying leads	P8S-GPFTX	P8S-GNFTX	N/A
0.3m lead with 8mm connector	P8S-GPSHX	P8S-GNSHX	
0.3m lead with 12mm connector	P8S-GPMHX	P8S-GNMHX	
1m lead with 8mm connector	P8S-GPSCX	P8S-GNSCX	

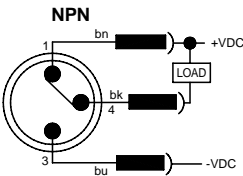
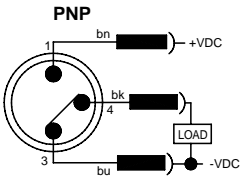
B

Wiring connection

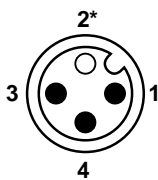
Flying lead or 8 mm connector (shown)



Pin	Wire	Function
1	Brown	Operating voltage (+VDC)
4	Black	Output signal (N.O.)
3	Blue	-VDC

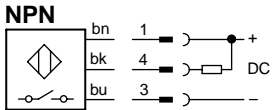
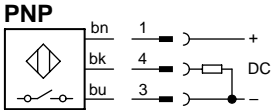


12 mm connector



Pin	Wire	Function
1	Brown	Operating voltage (+VDC)
4	Black	Output signal (N.O.)
2*	White	Not used
3	Blue	-VDC

* Pin 2 not present.



Electronic Sensors
Actuator Products

Selection
Guide

Drop-in
Sensors

Solid State /
Reed Sensors

Weld Immune
Sensors

Cordset /
Connect Block

NAMUR
Sensors

Proximity
Sensors

P8S Global Drop-in Reed Sensors

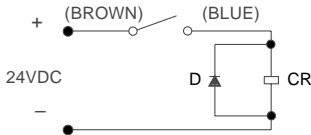


Wiring	Reed sensor
3m flying leads	P8S-GRFLX
10m flying leads	P8S-GRFTX
0.3m lead with 8mm connector	P8S-GRSHX
0.3m lead with 12mm connector	P8S-GRMHX
1m lead with 8mm connector	P8S-GRSCX

Circuit for switching contact protection (for inductive loads, e.g. solenoids, relays)

(Required for proper operation 24VDC)

Put diode parallel to load (CR) following polarity as shown below.

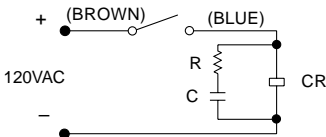


D: Diode: select a diode with the breakdown voltage and current rating according to the load.

Typical Example – 100 volt, 1 amp diode
CR: Relay coil (under 0.5W coil rating)

(Recommended for longer life 120 VAC)

Put a resistor and capacitor in parallel with the load (CR). Select the resistor and capacitor according to the load.



Typical Example:

CR: Relay coil (under 2W coil rating)
R: Resistor 1 K Ω - 5 K Ω , 1/4 W
C: Capacitor 0.1 μ F, 600 V

⚠ Caution

- Use an ampmeter to test reed sensor current. Testing devices such as incandescent light bulbs may subject the reed sensor to high in-rush loads.
- **NOTE:** When checking an unpowered reed sensor for continuity with a digital ohmmeter the resistance reading will change from infinity to a very large resistance (2 M ohm) when the sensor is activated. This is due to the presence of a diode in the reed sensor.
- Anti-magnetic shielding is recommended for reed sensors exposed to high external RF or magnetic fields.
- The magnetic field strength of the piston magnet is designed to operate with our sensors. Other manufacturers' sensors may not operate correctly in conjunction with these magnets.

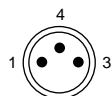
- Use relay coils for reed sensor contact protection.
- The operation of some 120 VAC PLC's (especially some older Allen-Bradley PLC's) can overload the reed sensor. The sensor may fail to release after the piston magnet has passed. This problem may be corrected by the placement of a 700 to 1K OHM resistor between the sensor and the PLC input terminal. Consult the manufacturer of the PLC for appropriate circuit.
- Sensors with long wire leads (greater than 15 feet) can cause capacitance build-up and sticking will result. Attach a resistor in series with the reed sensor (the resistor should be installed as close as possible to the sensor). The resistor should be selected such that $R \text{ (ohms)} > E/0.3$.

P8S Mini-Global Drop-In Solid State Sensors

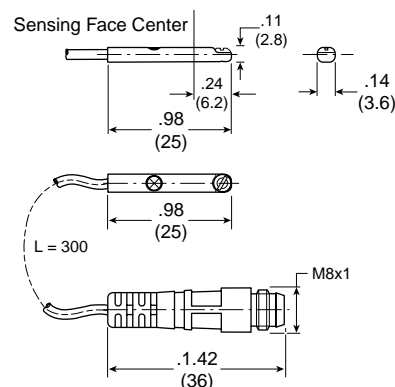
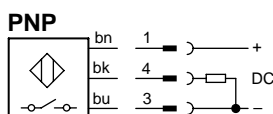
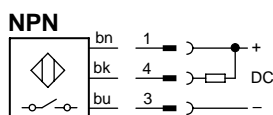


Wiring	PNP sensor	NPN sensor
3m flying leads	P8S-MPFLX	P8S-MNFLX
10m flying leads	P8S-MPFTX	P8S-MNFTX
0.3m lead with 8mm connector	P8S-MPSHX	P8S-MNSHX

Wiring connection



Pin	Wire	Function
1	Brown	+VDC
4	Black	NO
3	Blue	- VDC

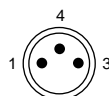


P8S Mini-Global Drop-In Reed Sensors

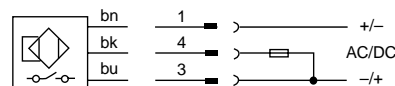


Wiring	Reed sensor
3m flying leads	P8S-MRFLX
10m flying leads	P8S-MRFTX
0.3m lead with 8mm connector	P8S-MRSHX

Wiring connection



Pin	Wire	Function
1	Brown	Operating voltage (+V)
4	Black	Output signal
3	Blue	Ground (-V)



Caution

- Use an ammeter to test reed sensor current. Testing devices such as incandescent light bulbs may subject the reed sensor to high in-rush loads.
- **NOTE:** When checking an unpowered reed sensor for continuity with a digital ohmmeter the resistance reading will change from infinity to a very large resistance (2 M ohm) when the sensor is activated. This is due to the presence of a diode in the reed sensor.
- Anti-magnetic shielding is recommended for reed sensors exposed to high external RF or magnetic fields.
- The magnetic field strength of the piston magnet is designed to operate with our sensors. Other manufacturers' sensors may not operate correctly in conjunction with these magnets.

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- Sensors with long wire leads (greater than 15 feet) can cause capacitance build-up and sticking will result. Attach a resistor in series with the reed sensor (the resistor should be installed as close as possible to the sensor). The resistor should be selected such that $R \text{ (ohms)} > E/0.3$.

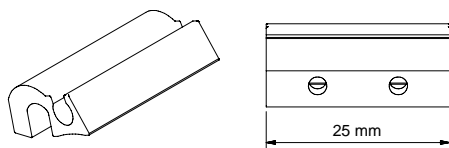
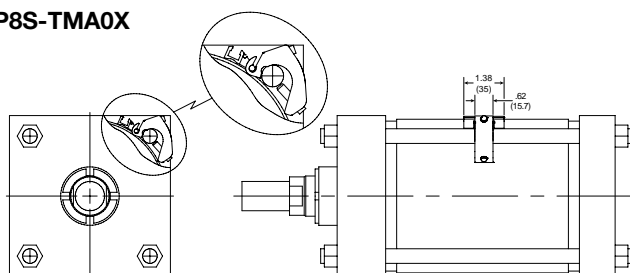
Tie Rod Bracket Assembly Part Number and Dimensions

Tie Rod Bracket Assembly is necessary for Global and Mini-Global Sensor installation on all tie rod construction cylinders. This includes all Intermediate Trunnion mounts (Style DD or MT4); some 1-1/8" bore 3MA Series mounts; and all 6"-8" bore Sensors and bracket assemblies must be ordered separately.

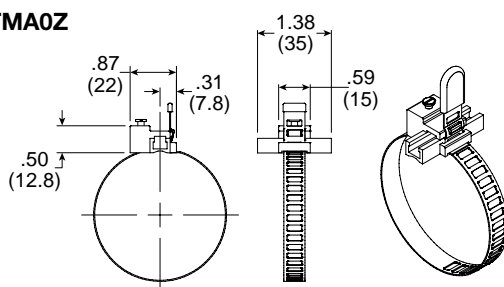
Part number P8S-TMA0X fits 1-1/2" to 8" bores and 32-200mm bores for Global Sensors

Part number P8S-TMA0Z fits 1-1/8" bore for Mini-Global Sensors

P8S-TMA0X



P8S-TMA0Z



Round body bracket assembly part numbers Sensors and brackets must be ordered separately

Bore size	Round body bracket
9/16" - 1-1/16"	P8S-TMC01
20 - 25mm	P8S-TMC01
1-1/8" - 2-1/2"	P8S-TMC02
32 - 63mm	P8S-TMC02
3" - 4"	P8S-TMC03
80 - 100mm	P8S-TMC03

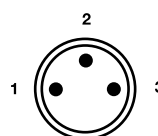
Electronic Sensors P8S Drop-in Sensors

P8S Right Angle Solid State Sensors

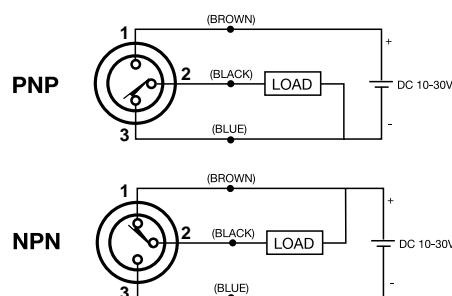


Wiring	PNP sensors	NPN sensors
0.2m lead with 8mm connector	P8S-SPTHXD	P8S-SNTHX
3m flying leads	P8S-SPELXD	P8S-SNELX
10m flying leads	P8S-SPETXD	P8S-SNETX

Wiring connection



Pin	Wire	Function
1	Brown	Operating voltage (+VDC)
2	Black	Output signal (N.O.)
3	Blue	-VDC

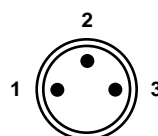


P8S Right Angle Reed Sensors



Wiring	Reed sensors
0.2m lead with 8mm connector	P8S-SRTHX
3m flying leads	P8S-SRELX
10m flying leads	P8S-SRETX

Wiring connection



Pin	Wire	Function
1	Brown	Operating voltage (+V)
3	Black	Not used
2	Blue	Output signal (-V or Ground)