

NEW OPTION!

Uxxxx

TEACHABLE PANEL PRESENT DETECTION FOR GRM CLAMP SIZE 2

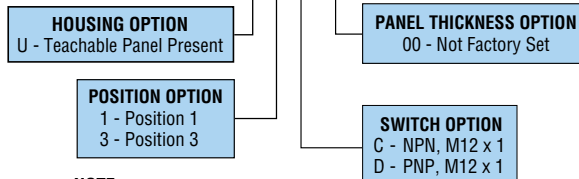
- Option provides push button teachable sensor to detect presence of part.
- Position of internal target relates directly to jaw position and thickness of material being gripped.
- Ideal choice for backup or redundant signaling detection.
- Cordset replaceable without having to remove or replace sensor.
- Drop-in retrofittable for -Pxxxx Panel Present Switch option
- Option functions within a wide range of material thicknesses 0.020 to 0.197 in [0.5 to 5.0 mm]
- Available on all 13 jaw styles



See next page for Setup Procedure

Example Ordering Data:

GRM 2 T S - 2 - 45 DDB - 45 DDB - LAA - U3D00



NOTE:
 1) Position 1 is port side of clamp.
 2) Sensor shown in Position 3.

The Teachable Sensor option provides fast setup. Watch the setup video on YouTube!



OPTION COMPATIBILITY

CLAMP SIZE	ACCESSORY CODE	BODY OPTION	JAW OPTION	HOUSING POSITION
2	U1xxx	B14	S, C, D, F, G, H, J, K, N, P, R	1
	U3xxx	Standard, B04, B12, B17	S, C, D, F, G, H, J, K, N, P, R	3
	U3xxx	B08	F, K	3
	U1xxx or U3xxx	Standard, B17	L, M	1 or 3
	U1xxx or U3xxx	B08, B09, B15, B16, B17	S, C, D, G, H, J, N, P, R	1 or 3
	U1xxx or U3xxx	B09, B15, B16	F, K	1 or 3



Steel tips are recommended for panel present detection. For urethane tip applications, refer to Tx068 and Tx069.

Single cone point to single diamond tips are not recommended for panels ≤ 0.039 in [1.0 mm].

Single diamond to single diamond tips are recommended for panels ≤ 0.039 in [1.0 mm].

SWITCH ASSEMBLY SPECIFICATIONS

CLAMP SIZE & JAW STYLE	ENVELOPE SIZE ADDER						WEIGHT ADDER	
	LENGTH		WIDTH		HEIGHT		lb	kg
	in	mm	in	mm	in	mm		
2xS, C, D, F, G, H, J, K, N, P, R 2xL or 2xM	0.000	0.0	0.293	7.4	0.000	0.0	0.42	0.19

JAW REBUILD KIT

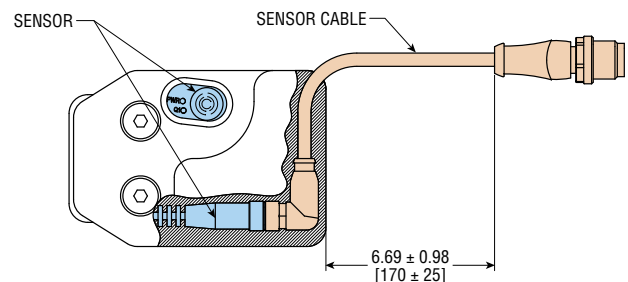
CLAMP SIZE & JAW STYLE	ACCESSORY CODE	KIT NUMBER
2xS, C, D, G, H, J, N, P, R	Uxxxx	62152-17
2xF or 2xK		62152-18
2xL or 2xM		62152-19
2-B12, 2-B14, 2-B15, 2-B16		62152-20

TEACHABLE PANEL PRESENT DETECTION REPLACEMENT KIT WHEN ORDERED SEPARATELY

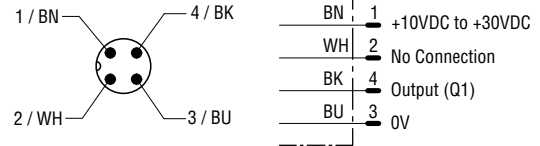
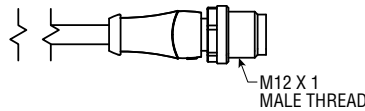
CLAMP SIZE/ JAW STYLE	TEACHABLE PANEL PRESENT DETECTION		DESCRIPTION
	ACCESSORY	KIT NO.	
2xS, 2xC, 2xD, 2xH, 2xJ, 2xG, 2xN, 2xP, 2xR, 2-B04, 2-B08, 2-B09	UxCxx	71964-200	Housing with NPN 4-pin DC switch kit
	UxDxx	71964-201	Housing with PNP 4-pin DC switch kit
2xF(K), 2xF(K)-B04, 2xF(K)-B08	UxCxx	71964-202	Housing with NPN 4-pin DC switch kit
	UxDxx	71964-203	Housing with PNP 4-pin DC switch kit
2xL, 2xM	UxCxx	71964-204	Housing with NPN 4-pin DC switch kit
	UxDxx	71964-205	Housing with PNP 4-pin DC switch kit
2-B12, 2-B14, 2-B15, 2-B16	UxCxx	71964-206	Housing with NPN 4-pin DC switch kit
	UxDxx	71964-207	Housing with PNP 4-pin DC switch kit

REPLACEMENT SENSOR AND CABLE

PART DESCRIPTION	UxCxx	UxDxx
SENSOR	92986-003	92986-001
SENSOR CABLE	92987-001	



TEACHABLE PANEL PRESENT DETECTION WIRING/OUTPUT DIAGRAMS



SHORT CIRCUIT AND OVERLOAD PROTECTION

SENSOR SPECIFICATIONS

SPECIFICATIONS	UxCxx	UxDxx
OPERATING PRINCIPLE	Solid State Detection of Moving Magnet	
INPUT VOLTAGE	10-30 VDC	
OUTPUT TYPE (see Notes)	NPN (Sink)	PNP (Source)
CONTINUOUS CURRENT	≤ 200 mA	
REVERSE POLARITY PROTECTION	Yes	
SHORT CIRCUIT PROTECTION	Yes	
VOLTAGE DROP	≤ 1 VDC	
POWER CONSUMPTION	≤ 550 mW	
ENVIRONMENTAL	IP67	
OPERATING TEMPERATURE	-20° to +70° C	

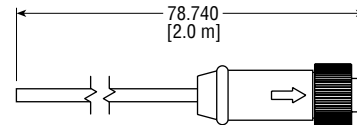
SWITCH OPTION	Q1 PANEL PRESENT OUTPUT		Q1 NO PANEL OUTPUT	
	PIN 4 OUTPUT	INDICATOR LIGHT	PIN 4 OUTPUT	INDICATOR LIGHT
UxCxx	NPN	OFF	NONE*	ON
UxDxx	PNP	ON	NONE**	OFF

* When using an NPN/PNP test box, no panel output may show PNP.

** When using an NPN/PNP test box, no panel output may show NPN.

NOTES:

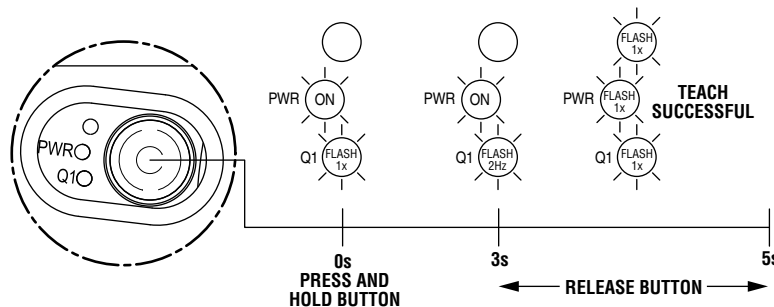
- 1) Not recommended for use with auto-sensing PLC inputs.
- 2) Some universal (NPN/PNP) test boxes will show unexpected output in no panel condition. See wiring/output diagrams.
- 3) Sensor must not be subjected to magnetic field strengths ≥ 20 mT.



MATING CORDSET 81284-1-010

TEACHABLE PANEL PRESENT DETECTION FIELD SETUP PROCEDURE

- 1) Connect sensor to operating voltage.
- 2) Open/Close GRM ≥ 5 times. (This step is only required on first startup.)
- 3) Teach sensor while gripping one panel:



HOW TO TEST SETUP FOR UxCxx (NPN)

- 1) Close tips on one panel using air pressure. Q1 should turn off.
- 2) Open jaws. Q1 should turn on.
- 3) Close tips without a panel using air pressure. Q1 should turn on.

HOW TO TEST SETUP FOR UxDxx (PNP)

- 1) Close tips on one panel using air pressure. Q1 should turn on.
- 2) Open jaws. Q1 should turn off.
- 3) Close tips without a panel using air pressure. Q1 should turn off.

NOTES:

- 1) With no panel is present, Q1 will flicker on as target passes through sensor, and will turn off as jaws reach full closure.
- 2) Steel tips are recommended. For urethane tip applications, refer to Tx068 and Tx069 in GRM catalog.
- 3) Single cone point to single diamond tips are not recommended for panels less than 0.039 in [1.0 mm]. Single diamond to single diamond tips are recommended for panels less than 0.039 in [1.0 mm].
- 4) PHD recommends teaching sensor when it's installed in final setup and gripped on intended workpiece.