



OT9 2-way outdoor taps

- **Compatible with Philips 9000 PBT taps**
- **Ingress Safe™ - unique passive ingress reduction technology**
- **AC-RF bypass switch, allowing faceplates to be changed without loss of power or RF**
- **Designed for extreme environmental conditions**
- **All connections front accessible**



Overview

OT9 outdoor taps are compatible with Philips 9000 PBT taps. The OT9 series includes 8-, 4- and 2-way taps with a variety of tap losses. Providing integrated Ingress Safe™ noise reduction technology, 1 kV surge protection and excellent RF performance, the taps feature sealed female F-ports for drop cable connection on the faceplate and 5/8"-24 NEF-female ports for in and output cable connection on the housing. The housing has an AC-RF bypass switch as standard, allowing faceplates to be changed without loss of power or RF through the tap housing.

The taps may be strand mounted through the clamp at the back of the housing or surface mounted with an optional bracket. Tested under extreme environmental conditions, the taps are designed to operate near salt water, along busy highways and in very hot conditions.

Ingress Safe

Our patented Ingress Safe technology uses a phase cancellation technique to considerably reduce ingress created within the home. It has no adverse effect on the CATV spectrum and is transparent to the forward and reverse path signals.

- Significantly reduces noise on CATV networks, improving network performance
- Field tests show Ingress Safe units in the distribution network can deliver improvement in the carrier to noise ratio that averages from between 3 dB and 12 dB, depending on the network topology
- Prevents or delays the need to deploy technicians to rectify faults caused by the cumulative effects of ingress on network performance and customer service.

Outdoor taps

OT9 2-way outdoor taps

technetix

Specifications

		MHz	2-4/I-T		2-8/I		2-11/I		2-14/I		2-17/I		2-20/I		2-23/I		2-26/I		
Insertion loss (switch) (dB, max) ¹	In to Out	5 - 1000	0.4		0.4		0.4		0.4		0.4		0.4		0.4		0.4		
Return loss (switch) (dB, min) ¹	In / Out	5 - 750	26.0		26.0		26.0		26.0		26.0		26.0		26.0		26.0		
		750 - 1000	20.0		20.0		20.0		20.0		20.0		20.0		20.0		20.0		
			Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	Typ	Max	
Insertion loss (dB)	In to Out ²	5 - 30	n/a		3.7		1.8		1.4		1.2		0.8		0.7		0.7		
		30 - 200			3.5		1.8		1.2		1.0		0.7		0.7				
		200 - 400			3.5		2.0		1.4		1.0		0.8		0.8				
		400 - 600			3.7		2.3		1.4		1.1		0.9		0.9				
		600 - 750			4.7		2.6		1.8		1.4		1.2		1.0				
		750 - 870			5.1		2.9		2.0		1.6		1.5		1.5				
		870 - 1000			5.3		3.3		2.5		1.9		1.8		1.8				
	In to Tap ^{2,3}	5 - 870	4.0	5.5	8.0	9.5	11.0	12.5	14.0	15.5	17.0	18.5	20.0	21.5	23.0	24.5	26.0	27.5	
		870 - 1000	4.0	5.5	8.0	10.0	11.0	12.5	14.0	15.5	17.0	18.5	20.0	21.5	23.0	24.5	26.0	27.5	
Isolation (dB, min)	Tap to Tap	5 - 10	20.0		15.0		20.0		20.0		20.0		20.0		25.0		20.0		
		10 - 30	20.0		20.0		20.0		20.0		20.0		20.0		25.0		20.0		
		30 - 750	22.0		23.0		23.0		23.0		23.0		23.0		23.0		23.0		
		750 - 1000	20.0		20.0		20.0		20.0		20.0		20.0		20.0		20.0		
Isolation (Directivity) (dB, min)	Out to Tap	5 - 30	n/a	20.0		20.0		20.0		20.0		20.0		20.0		20.0		20.0	
		30 - 200		24.0		27.0		27.0		27.0		27.0		28.0		29.0		30.0	
		200 - 600		22.0		27.0		27.0		27.0		27.0		28.0		29.0		30.0	
		600 - 750		22.0		26.0		26.0		26.0		26.0		27.0		28.0		29.0	
		750 - 870		22.0		25.0		25.0		25.0		25.0		26.0		27.0		28.0	
		870 - 1000		20.0		25.0		25.0		25.0		25.0		26.0		25.0		28.0	
Return loss (dB, min)	In/Out	5 - 10	12.0		12.0		12.0		12.0		12.0		12.0		12.0		12.0		
		10 - 30	16.0		16.0		16.0		16.0		16.0		16.0		16.0		16.0		
		30 - 750	18.0		18.0		18.0		18.0		18.0		18.0		18.0		18.0		
		750 - 1000	16.0		16.0		16.0		16.0		16.0		16.0		16.0		16.0		
Screening efficiency (dB, typ). Minimum exceeds Class A. ⁴		5 - 300	95.0		95.0		95.0		95.0		95.0		95.0		95.0		95.0		
		300 - 470	90.0		90.0		90.0		90.0		90.0		90.0		90.0		90.0		
		470 - 950	85.0		85.0		85.0		85.0		85.0		85.0		85.0		85.0		
		950 - 1000	65.0		65.0		65.0		65.0		65.0		65.0		65.0		65.0		
		(GTEM) ⁵	5 - 300	110.0		110.0		110.0		110.0		110.0		110.0		110.0		110.0	
		300 - 1200	100.0		100.0		100.0		100.0		100.0		100.0		100.0		100.0		
Power passing (Amps AC/DC) ⁶			12																
Hum modulation (dB, typ) ⁷	All ports	5 - 1000	-70																
Ingress Safe port			Port 2																
Surge Class conformance ⁸	All ports		6KV combination wave 2 Ω Impedance (C1)																
Dimensions (mm)	L x H x D		120.5x80.5x60																
Equipment Approval	CE																		

Remarks

1	Faceplate removed
2	+0.5dB insertion loss tolerance above +30°C
3	Additional 0.5 dB loss for Ingress Safe circuit on port 2
4	Tested according to EN 50083-2:2006
5	Tested according to SCTE IPS-TP403
6	Range between 60-90 VAC/ VDC
7	At 12 Amp power passing
8	Tested according to IEC 61000-4-5 2005

Ordering information

Item Name	Article number	Item Name	Article number
OT9-2-4/I-T	10480205	OT9-2-17/I	10480218
OT9-2-8/I	10480209	OT9-2-20/I	10480221
OT9-2-11/I	10480212	OT9-2-23/I	10480224
OT9-2-14/I	10480215	OT9-2-26/I	10480227

Mechanical & environmental specifications

		Details
Port Sealing	Environmental (epoxy) seal	All F-ports
Connectors	Input & Output Tap ports ANSI/SCTE 01 (outdoor) comply F-connector torque F-connector brass with NiSn (60/40) plating F connector inserts F-inner spring with Ag plating	KS-female (5/8"-24NEF) TAP ports - F Female All F-ports 10Nm (88.51 In-Lb) >1.5µm >0.6µm
Water Immersion (IP08)	Tighten torque on connectors Water head Duration Observation: No water leak	2.26Nm (< 20 In-Lb) 2m (6.56 ft) 500 hrs No electrical degradation after dry
Temperature cycling with humidity (EN 60068-2-30:2005)	Temperature Extreme temp duration Transient Humidity Number of cycles Observation: (no water leakage)	+4°C to +60°C (+39.2°F to +140°F) 3 hrs 3 hrs 95% RH 20 No electrical degradation after dry
High Temperature cycling (EN 60068-2-2:2007)	Temperature Duration Observation: No crack or damage	+60°C (+140°F) 48 hrs No electrical degradation after dry
Drop Test (EN 60068-2-32:1993 , IEC 68-2-32:1975)	75cm (29.5 in) high onto concrete floor or metal plate surface Number of drop for each impact points Observation: No crack on metal	Corner, Edge & Port 1 No electrical performance degradation
Salt Fog (MSTM-B-117)	Tighten torque on connectors Temperature Salt percentage & acidity Duration Number of cycles Observation: (No electrical performance degradation)	2.26Nm (< 20 In-Lb) +35°C (+95°F) 5% & pH7 1000 hrs Continues No metal corrosion or salt incursion
WEEE (2002/96/EC)	Complete product	Marked with wheelie bin logo
RoHS (2002/95/EC)	Complete product	Complies to RoHS
Temperature	Operating temperature	-40°C to +60°C (-40°F to +140°F)

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